NAVTEQ's NAVSTREETS Street Data Reference Manual v2.6 1 January 2008

Proprietary and Confidential

NAVTEQ
222 Merchandise Mart Plaza
The Merchandise Mart, Suite 900
Chicago, Illinois 60654
USA
+1-312-894-7000

(This page intentionally left blank)

Document Control

The information below describes the changes made to this document for each version.

Version	Date	Database Release Quarter	Changes
V1.0	1 January 2006	Q1-2006	Initial Release
V1.1	17 March 2006	Q2-2006	See *Section RH.2, Changes made for V1.1* for edits
V2.0	16 June 2006	Q3-2006	See *Section RH.3, Changes made for V2.0* for edits
V2.1	15 September 2006	Q4-2006	See *Section RH.4, Changes made for V2.1* for edits
V2.2	15 December 2006	Q1-2007	See *Section RH.5, Changes made for V2.2* for edits
V2.3	16 March 2007	Q2-2007	See *Section RH.6, Changes made for V2.3* for edits
V2.4	1 July 2007	Q3-2007	See *Section RH.7, Changes made for V2.4* for edits
V2.5	1 October 2007	Q4-2007	See *Section RH.8, Changes made for V2.5* for edits
V2.6	1 January 2008	Q1-2008	See *Section RH.9, Changes made for V2.6* for edits

(This page intentionally left blank)

Table of Contents

(This page intentionally left blank)

Table of Contents

(This page intentionally left blank)

Introduction

(This page intentionally left blank)

Welcome to NAVTEQ™ NAVSTREETS Street Data by NAVTEQ. When you use NAVSTREETS you are taking advantage of the highest quality data available in both North America and Europe, as well as enjoying the benefits of having just one data set specification across all countries.

With the most accurate geometry, the highest number of attributes, and the most complete detailed coverage, NAVSTREETS is the ideal resource for Fleet applications that offer route planning and optimization, and GIS applications that require superior accuracy. Products, applications, and services that rely on digital mapping data can ensure superior performance and accuracy by using NAVSTREETS.

Data Sources and Quality Control

NAVTEQ' comprehensive data build process ensures the highest quality data available for routing and mapping applications. The process begins with establishing a field office in the new build area. Source or Base Maps are acquired from a variety of sources including local governments, utility companies, other public agencies, and commercial mapping agencies. These maps are then carefully reviewed and digitized. All base map data is further enhanced with aerial photos and differential GPS to accurately position roads and represent lakes, rivers, railroads, etc., and proprietary software is then used to add navigable information, addresses, and points of interest.

NAVTEQ additionally road tests the data to further add to the quality of the database. Field office staff drives the roads and streets to collect and verify new data, and then drives them over again to confirm the accuracy of all information contained in the database. Photographs are also taken of all overhead signage to ensure that the data accurately reflects the real world.

Data Attributes

NAVSTREETS contains the most navigable attributes available in a database. Utilizing the data to its fullest allows the user to access features such as expressway ramps, complete and correct connectivity of all roadways, one-way streets, physical, logical, and legal turn restrictions, construction projects, as well as physical and painted lane dividers. In addition to these navigable attributes, NAVSTREETS provides address ranges down to the level of the correct side of the street.

Mapping applications are enhanced with five functional classifications of roads, and polygonal representation of features such as airports, aircraft roads, cemeteries, golf courses, hospitals, military bases, parks, national monuments, public use areas, pedestrian zones, shopping centers, sports complexes, undefined traffic areas, university/colleges, and woodlands.

Purpose

The purpose of this document is to describe the content and format of the NAVTEQ NAVSTREETS Street Data.

Audience

This document is intended for use by NAVTEQ staff and current licensees of NAVTEQ.

Document Conventions

British spellings are used throughout this document (e.g., harbour, manoeuvre, centre). European numeric representations are used (e.g., a period in the place of a comma-1,000 becomes 1.000).

References to other documents are indicated in [ ].

References

[1] Database for Navigation and Digital Cartography: DNDC Database Specification, NAVTEQ, Sunnyvale, 1996. (This is the internal data model for NAVTEQ. This document is referred to through out this document.)

Inclusion

(This page intentionally left blank)

1.1 Introduction

NAVTEQ has the following levels of coverage: Detailed City, Inter-Town, In-Process Data and Connector areas.

This chapter describes the content of the coverage levels. For each coverage level, the inclusion for each of the following categories is provided:

- Transportation Network

  Lists items that are included as part of the road network.

- Cartographic Inclusion

  Lists cartographic features that are included and their requirements for inclusion.

(This page intentionally left blank)

1.2 Detailed City Inclusion

Detailed City is NAVTEQ's highest level of coverage. This coverage level has the most detail and enables door-to-door routing functionality.

The following outlines the basic inclusion for Detailed City. Sometimes additional features are included based on their cartographic or historic importance.

1.2.1 Transportation Network

- Named Roads
- Unnamed roads that substantially enhance routing
- Unnamed roads that serve as access to Rest Areas along motorways (Controlled Access roads)
- Unnamed, main paved roads which allow public access, and that are within or lead to any included polygons in the following categories: Airports, Cemeteries, County Parks, Golf Courses, Hospital Complexes, Industrial Complexes, Military Bases, National Monuments, National Parks, Shopping Centres, Sports Complexes, State Parks, or Universities.
- Named and unnamed apartment, townhome, and mobile home geometry (N.A. only)
- Unnamed, paved roads that are used by public vehicles only
- Ferry connections that follow regular schedules for automobiles (and the driver of the vehicle) via rail or boat

  Note: When an island that has transportation network features is connected via a passenger ferry only, this ferry route is included for connectivity to the network. This is the only exception to the above inclusion rule.

- Named and addressed walkways, or navigationally significant walkways that are needed for road network connectivity. In Europe, unnamed walkways can be included when cartographically significant.
- Undefined Traffic Areas > 1.000 metres^2/10.800 feet^2
- Ramps, Roundabouts, Special Traffic Figures, and Turn Lanes
- U-Turn Lanes which are restricted to Public Vehicles Only
- Frontage Roads (also known as Service Roads)
- Pedestrian Streets and Pedestrian Zones

- Roads needed to connect isolated navigable features at the Detailed City/Inter-Town boundary.

Note: Due to Database Coverage Areas (DCA)/sub-DCA definitions and country boundaries, roads at the database boundary may be isolated. See *Figure 1-1* for clarification.

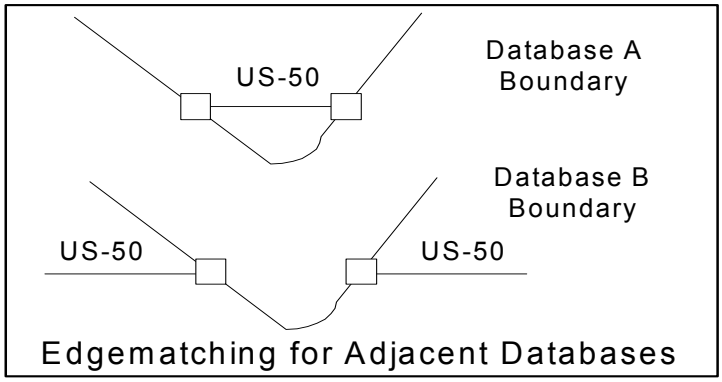


Figure 1-1

- Transportation Network within airports, which include:
  - Confirmed named roads
  - Arrivals and departures access roads
  - Rental car return and pick-up access roads (when these are not in a parking garage)
  - Parking access roads when different entrance/exit roads exist. The entrance and exit road should be connected with only one internal parking road.
  - Public vehicle roads (buses, taxis, etc.)
  - Any other public roads needed for connectivity

U.S. only:

- Named forest service roads

  Note: Unpaved forest service roads are not field verified.

- Access roads, parking lanes, pedestrian walkways, and connections internal to the complex of select POIs in the following categories: Convention Centre, Sports Complex, Casino, Winery, Amusement Park, Historical Monument, Park/Recreation Area, Tourist Attraction, Golf Course, Hospital, and University.

  Note: For multiple level parking structures, only the base level parking lanes are represented.

1.2.2 Cartographic Inclusion

The following items are included when applicable. The levels of polygonal inclusion may vary due to differences in basic cartographic techniques and differences in scale between coverage areas. Also, see *Geometric Representation* for further details on the specific items listed below.

- Public Airports and Aircraft Roads (polygonal feature)

  Aircraft Roads are runway areas, tarmac, and aircraft parking area.

  Military airports are not included.

- Administrative Area Boundaries:
  - Administrative Level 1 Linear
  - Administrative Level 2 Linear
  - Administrative Level 3 Polygonal
  - Administrative Level 4 Polygonal

- Cartographic Country Boundary (linear feature)

  Cartographic Country Boundary is included where two countries border on land.

- Cartographic State/Province Boundary (linear feature)

  Cartographic State/Province Boundary is included where two states or provinces border on land in the U.S., Canada, Australia, and India.

- Building/Landmark Polygons are included for a sub-set of POIs flagged as nationally important, major tourist attractions and historical monuments, significant buildings used in directions (e.g. Buckingham Palace), and other significant buildings appearing on commercial maps.

  Note: The inclusion of these polygons is generally limited to the city centre/downtown area of selected cities, but additional buildings outside the city centre may also be included, if significant.

  In the U.S., building footprints are also included for select POIs in the following categories: Convention Centre, Sports Complex, Casino, Winery, Amusement Park, Historical Monument, Park/Recreation Area, Tourist Attraction, Golf Course, Hospital, and University.

- Built-up Area Polygon for each Named Place (included in Europe, South Africa, and Canada)

  Canada and Europe:
  - Built-up areas greater than 250.000 meters^2/2.700.000 feet^2 are included. Smaller built-up areas are included where significant.
  - A built-up area polygon is included for every settlement that has settlement level coding, with one exception. When the built-up area of a settlement is completely within the built-

up area of the municipality, only one built-up area with the name of the municipality is included.

South Africa: Included based on digital source.

U.S.: Not Included

- Railways (linear feature)
  - Canada and Europe: National and Civil railways that comprise the main railway network are included.
  - U.S. and Puerto Rico: The main lines of all above-ground railways are included.
  - South Africa: Included based on digital source.

  Note: Local commuter rail network, light rail networks, and cable car lines are not included.

- Area polygons greater than 50.000 metres^2/540.000 feet^2 for the following categories:
  - Cemetery
  - Golf Course
  - Hospital Complex
  - Industrial Complex. (In North America, only industrial complexes greater than 250.000 metres^2/2.700.000 feet^2 are included.)
  - Military Base (included in North America only)
  - Native American Reservation (included in North America only)
  - Shopping Centre

    Global:

    Only enclosed shopping malls of regional significance are included.

    North America:

    Shopping malls of regional significance, major outlet and lifestyle shopping areas are included.

    Note: Lifestyle centers are similar to a shopping mall but are usually slightly smaller in size, feature upscale retail stores and restaurants, and often have open-air corridors.
  - Sports Complex
  - University/College Complex. (For the U.S., community colleges of regional significance are included.)

  Note: In Europe, the parking lot is included in the measurement of the polygon for size inclusion.

Note: In North America, the parking lot is not included in the measurement of a cartographic feature. Area polygons greater than 10.000 metres^2/108.000 feet^2 for the following categories:

- Municipal(City)/County Park
- National Park

  Note: In North America, historic parks, scenic parks, beach parks and recreation areas that meet the size inclusion are included.

  Note: In Europe, recreation areas that meet the size inclusion are included. Polygons are not added for historical city centres, bridges, castles, squares, or historical buildings.

  Note: In South Africa, nature reserves that meet the size inclusion are included.
- National Monument

  Note: In Europe, only National Monument polygons for parks and woodlands are included. Polygons are not added for historical city centres, bridges, castles, squares, or historical buildings.
- State Park
- Park in Water
  - The size inclusion for the park polygon is the combined size of both the park on land and the park in water.
  - Park in Water polygons can exist without a corresponding park on land polygon. This can occur when the park only consists of water.
  - Park in Water are applied to parks in Oceans and large Bays/Harbours. Parks within, or partially within smaller water features, such as lakes and rivers, generally do not apply.
- Woodland (included in Europe only)

- Beach Polygons (included in Western Europe, South Africa, Australia, U.S./P.R./U.S.V.I., and Canada.)

- Polygonal Water Features include:
  - Bays/Harbours greater than 1 million metres^2/10.800.000 feet^2 when there is a logical point of closure
  - Canals/Channels/Rivers wider than 25 metres/82 feet
  - Islands not in Oceans greater than 10.000 metres^2/108.000 feet^2 or having navigable features
  - Islands within Oceans: islands greater than 250.000 metres^2/2.700.000 feet^2 or having navigable features

- Lakes greater than 10.000 metres^2/108.000 feet^2
- Oceans

- Linear Water Features
  - Canal/Channels/Rivers between 10 metres/33 feet and 25 metres/82 feet wide

- Pedestrian Areas.

- Congestion Zone (included in London and Stockholm only)

- Hurricane Prone Area (in selected States of the U.S. only)

1.2.3 Signs

Exit signs and Straight On signs (in N.A. and Europe solely to provide additional guidance for the road ahead) are included at decision points along motorways (Controlled Access roads) and ramps. Signs are also included inside National Public Airports in Canada and Europe and inside public airports in the U.S and South Africa.

Entrance Ramp signs are included on entrances to motorways (controlled access roads).

Additional signs may be added at other locations where such information is navigationally significant.

1.3 Inter-Town Inclusion

Inter-Town coverage includes the main highway network and all the necessary attributes required to allow routing from city to city. Inter-Town links are coded with ***Detailed City Inclusion*** = N and ***In-Process Data*** = N. For Inter-town links, the ***Full Geometry*** flag may be set to either yes or no depending on the presence or lack of surrounding In-Process Data Coverage.

The following outlines the minimum inclusion required for In-Town areas. Additional coding may exist.

Inter-Town areas include the following:

1.3.1 Transportation Network

- Canada:
  - Federal, Regional, and Provincial numbered routes
  - Roads that lead to an included Named Place POI
  - Public roads within National Public Airports
- Europe:
  - Roads that are ***Functional Class*** (Level 1, 2, 3, and 4)
  - Roads that lead to an included Named Place POI. A Named Place is included for each municipality and all built-up areas larger than 250.000 metres^2/2.700 000 feet^2.
  - Public roads within National Public Airports
- South Africa: Inter-Town coverage does not exist in South Africa.
- U.S.:
  - Interstate, Federal, State, and primary County numbered routes.
  - Roads that lead to an included Named Place POI.
  - Access roads, parking lanes, pedestrian walkways, and connections internal to the complex of select POIs in the following categories: Convention Centre, Sports Complex, Casino, Winery, Amusement Park, Historical Monument, Park/Recreation Area, Tourist Attraction, Golf Course, Hospital, and University.

    Note: For multiple level parking structures, only the base level parking lanes are represented.
- Europe and North America:
  - Unnamed roads that substantially enhance routing
  - Named and unnamed apartment, townhome, and mobile home geometry (N.A. only)

- Ferry connections that follow a regular schedule for automobiles (and the driver of the vehicle) via rail or boat between qualifying roads and to Named Place POIs

  Note: When an island that has road network features is connected via a passenger ferry only, this ferry route is also included for connectivity to the network. These are the only situations where “passenger only” ferries are included.

- Roads that connect Point of Interest facilities that meet Inter-Town inclusion rules.
- The main road within included Rest Areas
- Ramps, Roundabouts, Special Traffic Figures, Turn Lanes

  Note: All exit and entrance ramps along motorways (controlled access roads) are included, even if they do not connect to an included road. Enough of the crossing road is included to allow for re-routing onto the motorway.

  Note: Optional intersecting roads off roundabouts may be included.

- U-Turn lanes which are restricted to public vehicles only

1.3.2 Cartographic Inclusion

The following items are included, when applicable. The levels of polygonal inclusion may vary due to differences in basic cartographic techniques and differences in scale between coverage areas. For generalisation guidelines, refer to *Geometric Representation*. Also, see *Geometric Representation* for further details on the specific items listed below.

- Public Airports and Aircraft Roads (polygonal feature)
  - Aircraft Roads are runway areas, tarmac and aircraft parking areas.
  - In the U.S., U.S.V.I, and P.R., only FAA-certificated airports are included.
  - Military airports are not included in Europe or North America.
- Administrative Area Boundaries:
  - Aministrative Level 1 - Linear
  - Administrative Level 2 - Linear
  - Administrative Level 3 - Polygonal

  Note: For some countries, a polygonal city boundary (Administrative Level 4) is also present.

  Note: See *Section C.4, Administrative Level Coding and Boundary Features* for definitions of “State”, “County” and “City” for European countries.

- Cartographic Country Boundary (linear feature)

  Cartographic Country Boundary is included where two countries border on land.

- Cartographic State/Province Boundary (linear feature)
- Cartographic State/Province Boundary is included where two states or provinces border on land in the U.S., Canada, Australia, and India.
- Built-up Area Polygon for each Named Place (included in Europe and Canada)
  - Canada: All named settlements are included.
  - Europe: Built-up areas greater than 250.000 meters^2/2.700.000 feet^2 are included. Smaller built-up areas are included where significant.
  - U.S.: Not included.
- Railways (linear feature):
  - Canada and Europe: National and civil railways that comprise the main railway network
  - U.S. and P.R.: The main lines of any above-ground railways

    Note: Note: Commuter rail networks, light rail networks or cable car lines are not included.
- Polygonal Water Features:
  - Bays/Harbours greater than 1 million metres^2/10.800.000 feet^2 when there is a logical point of closure
  - In Europe, Canals, Channels and Rivers that are wider than 100 metres/328 feet for at least 5 km/3 miles.
  - In North America, Canals, Channels and Rivers that are wider that 250 metres/820 feet for at least 10 km/6 miles
  - Islands (not in Oceans) with navigable features or meeting the following size inclusion:

    – Europe: Greater than 250.000 metres^2/2.700.000 feet^2

    – North America: Greater than 1 million metres^2/10.800.000 feet^2
  - Islands within Oceans: islands greater than 250.000 metres^2/2.700.000 feet^2 or containing navigable features
  - Lakes

    – Europe: Greater than 250.000 metres^2/2.700.000 feet^2

    – North America: Greater than 1 million metres^2/10.800.000 feet^2
  - Oceans
- Linear Water Features:
  - In Europe, Canals, Channels, and Rivers when between 25 metres/82 feet and 100 metres/328 feet wide

- In North America, Canals, Channels, and Rivers when between 100 metres/328 feet and 250 metres/820 feet wide

- Area Polygons greater than 10.000 metres^2/108.000 feet^2 for the following categories:
  - National Monument
  - National Park
  - State Park

    Note: In North America, historic parks, scenic parks, beach parks and recreation areas that meet the size inclusion and are at the national or state level are included.

    Note: In Europe, recreation areas that meet the size inclusion are included.
  - Park in Water
    - The size inclusion for the park polygon is the combined size of both the park on land and the park in water.
    - Park in Water polygons can exist without a corresponding park on land polygon. This can occur when the park only consists of water.
    - Park in Water are applied to parks in Oceans and large Bays/ Harbours. Parks within, or partially within smaller water features, such as lakes and rivers, generally do not apply.
- Beach Polygon (Western Europe, S.A., Australia, U.S./P.R./U.S.V.I., and Canada.)

- Europe: Woodlands greater than 250.000 metres^2/2.700.000 feet^2

- North America: Area Polygons greater than 1 million metres^2/10.800.000 feet^2 for the following categories:
  - Military Base (Includes Army, Navy, Air Force, Marine and Coast Guard Bases)
  - Native American Reservation

1.3.3 Signs

Exit signs and Straight On Signs (in N.A. and Europe solely to provide additional guidance for the road ahead) are included at decision points along motorways (Controlled Access roads) and ramps. Signs are also included inside National Public Airports in Canada and Europe and inside public airports in the U.S., U.S.V.I., and P.R..

Entrance Ramp signs are included on entrances to motorways (controlled access roads).

- Additional signs may be added at other locations where such information is navigationally significant.

1.4 In-Process Inclusion

In many countries, NAVTEQ has used a commercial source to add local roads to the Inter-Town network. The inclusion of this geometry allows improved map display and guidance. This coverage level is called Full Coverage in the U.S. and Road Network Coverage in Europe and South Africa.

In-Process links have varying geometric accuracy and attribute inclusion depending on the source of the data. In-Process links are coded with ***Detailed City*** = N, ***In Process Data*** = Y, ***Full Geometry*** = Y, and ***Functional Class*** = 5. As NAVTEQ verifies and fully attributes these links to either the Detailed City or Inter-Town specification, these flags are adjusted accordingly.

Note: In Canada and Alaska, ***Functional Class*** = 3, 4, and 5 may have ***In Process Data*** = Y. See Scopes for detailed information.

The following outlines the minimum inclusion required for In-Process areas. Additional coding may exist.

1.4.1 Transportation Network

- Named roads
- All Unnamed roads that substantially enhance routing.
- Named and unnamed apartment, townhome, and mobile home geometry (N.A. only)

1.4.2 Cartographic Inclusion

- Administrative Level 4 Polygons
- Cartographic Country Boundary (linear feature)

  Cartographic Country Boundary is included where two countries border on land.
- Cartographic State/Province Boundary (linear feature)
- Cartographic State/Province Boundary is included where two states or provinces border on land in the U.S., Canada, Australia, and India.
- Built-up areas greater than 250.000 meters^2/2.700.000 feet^2 are included. (Canada)
- Area polygons greater than 50.000 metres^2/540.000 feet^2 for the following categories (U.S., U.S.V.I., and P.R.):
  - Cemetery
  - Colonia (included in Mexico only)
  - Golf Course
  - Hospital Complex

- Industrial Complex (In North America, only industrial complexes greater than 250.000 metres^2/2.700.000 feet^2 are included.)
- Military Base
- Native American Reservation
- Shopping Centre

  Global:

  Only enclosed shopping malls of regional significance are included.

  North America:

  Malls of regional significance, major outlet and lifestyle shopping are included.

  Note: Lifestyle centers are similar to a shopping mall but are usually slightly smaller in size, feature upscale retail stores and restaurants, and often have open-air corridors.
- Sports Complex
- University/College Complex. (For the U.S., community colleges of regional significance are included.)

1.5 Connector Inclusion

The Connector Specification enables NAVTEQ to maintain minimum coverage in areas prior to completing (full) Detailed City (DC), Inter-Town (IT), or In-Process areas. Examples include:

- Connections to a city in a country where there is currently no other existing coverage.
- Connections between existing DC, IT, or In-Process areas.

This coverage level refers to three types of city inclusion: Target City, Connector City, and Other Cities along Connector Route. A network of “Connector Roads” links these cities. See *Figure 1-2* for an overview of these concepts, which are detailed in the remainder of this section.

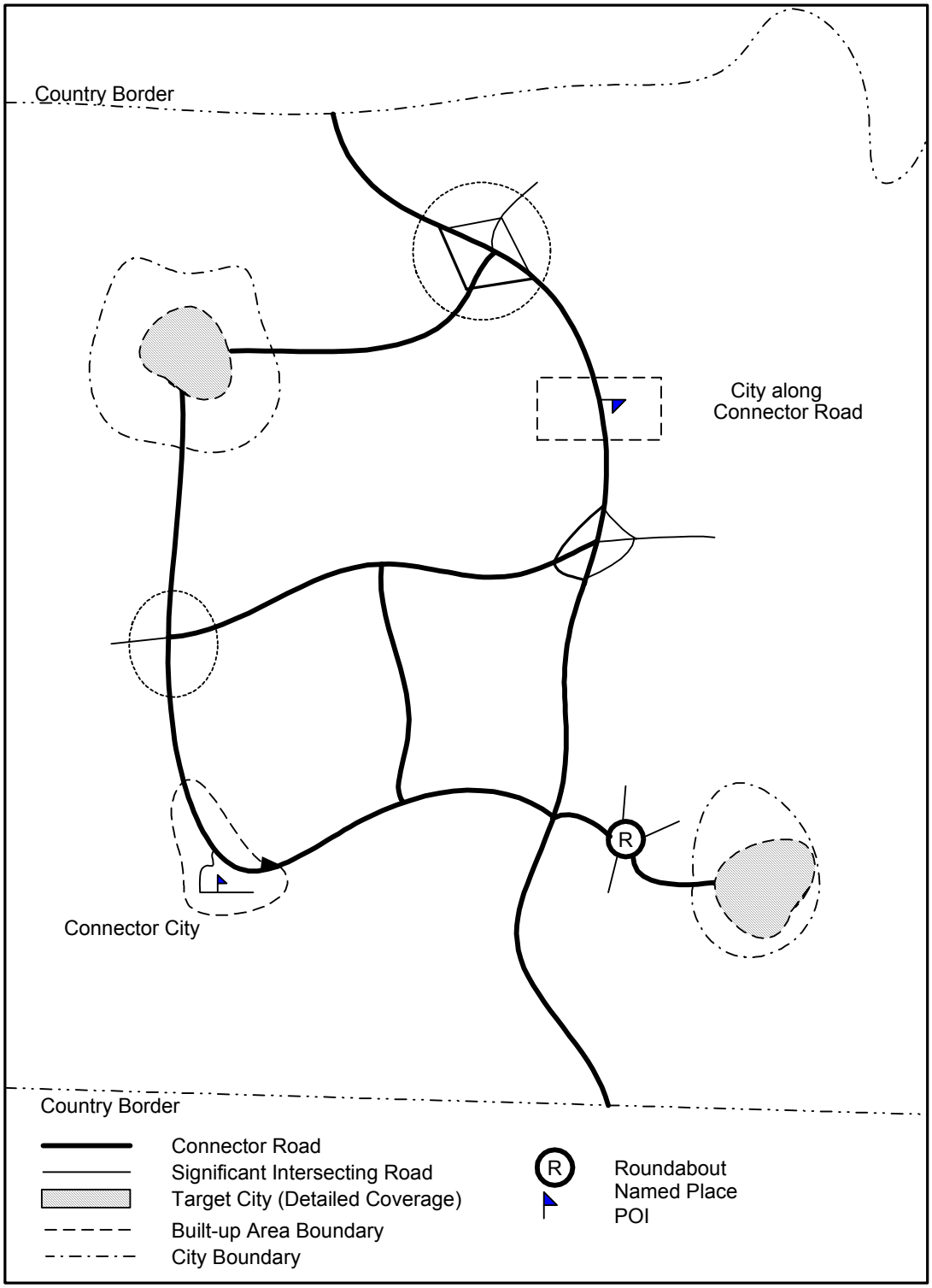

Country Border
City along
Connector Road
R
Connector City
Country Border
Connector Road
Significant Intersecting Road
Target City (Detailed Coverage)
Built-up Area Boundary
City Boundary
R
Roundabout
Named Place
POI

Figure 1-2

1.5.1 Glossary

The section below is a glossary of terms used within this section.

1.5.1.1 City Inclusion

Target City

Everything within the coverage area of the Target City is built to Detailed City Inclusion. All links within the Target City are coded as ***Detailed City*** = Y and ***In-Process Data*** = N. ***Functional Class*** coding may contain dangles at the edge of the coverage area.

The outline of a Target City is based on administrative boundaries or prominent physical features such as ring roads or rivers. Map display and maximising options for routing are the most important factors evaluated when defining the outline of a Target City.

Connector City

Connector Cities are included as part of a phased implementation process. All roads required to route to the Named Place POI are included (see *Section 1.5, Connector Inclusion*). The Connector Cities are ***Detailed City*** = N and will be upgraded to Target Cities at a later date.

Other Cities along Connector Route

The Named Place POIs for these cities are located along the Connector Road. For detailed specifications on placement, see *Section 1.5.2.8, POIs (Connector Roads)*. These cities also have an associated Built-Up Area polygon and receive administrative coding as detailed in *Section 1.5.2.3, Administrative Coding*.

1.5.1.2 Connector Roads

Roads connecting Target Cities, Connector Cities, and existing coverage in bordering countries.

1.5.1.3 Significant Intersecting Roads

Additional geometry at intersections where turn-by-turn guidance along the connector route is needed. This does not include all intersecting geometry that may exist in reality.

1.5.2 Inclusion Rules

The following is a minimum specification requirement. These areas may be enhanced over time to create Detailed City, Inter-Town, and In-Process Data coverage areas.

1.5.2.1 Roads

- ***Functional Class*** = 1 to, from, and between Target Cities.
- Additional main, logical connections between ***Functional Class*** = 1 roads.
- Significant Intersecting Roads (the entire road is not included, just a segment is) along the route created by the above ***Functional Class*** roads. Additional geometry at all intersections where turn-by-turn guidance is needed. See *Figure 1-3.*
  - Includes a connecting link for all roads attached to included roundabouts.
  - All ramp geometry is included where the ramp is part of a decision point. If the ramp is not part of a decision point, the geometry is not included. Ramps have correct and complete ***Direction of Travel*** coding. See *Figure 1-4*.
  - Additional intersecting roads may be included, but are not required.
- Roads within Connector Cities used for routing to Named Place POI.
- Roads for Rest Areas along Motorways Rest Area geometry may or may not be included along non-Motorways.

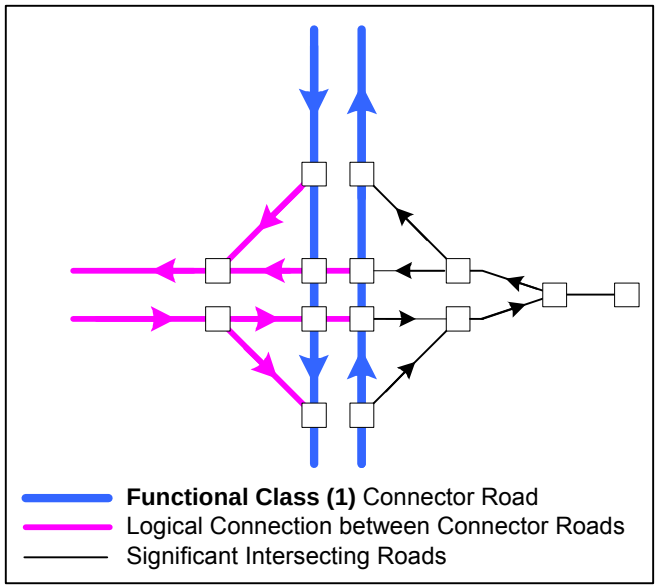


Figure 1-3

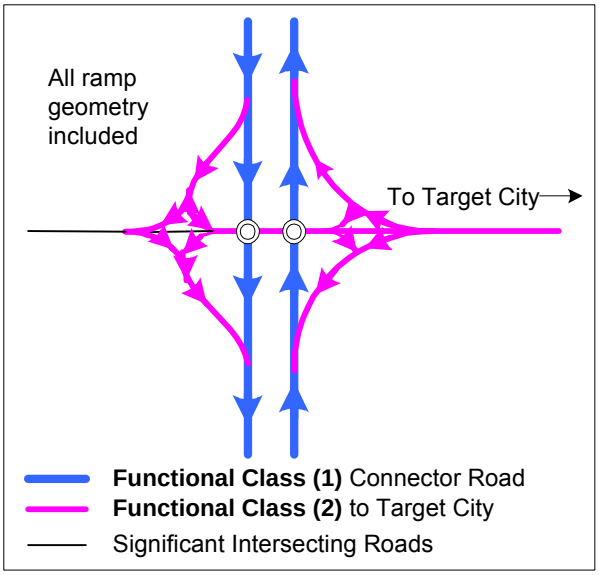


Figure 1-4

Additional Requirements:

- ***Functional Class*** connectivity is maintained with adjacent databases. The Connector Roads are accessible when merged with other databases, either via road or by Boat/Rail Ferry. However, ***Functional Class*** coding may contain dangles at the edge of the coverage area.

- Only roads and ferries that are accessible for Autos and Through Traffic are included.

1.5.2.2 Cartographic Inclusion

- Administrative Features
  - Country Linear Feature.

    Note: In some countries the Country border may not fully represent reality if the Connector Route does not pass through a significant portion of the country.
  - Administrative Level 2 Feature for the complete country (based on the Country inclusion above).
  - "Spanning Set" Polygons at Sectioning Level appropriate for the country (based on the Country inclusion above):

    – Accurate Administrative Polygons for areas through which connector roads pass.

    –"Filler" Polygons for areas through which connector roads do not pass (see *Figure 1-5*).

    Note: "Spanning Set" means that the set of polygons completely covers the country without any gaps and without overlapping. In most countries, such an administrative level exists in reality, but in some cases it does not. In cases where

the administrative boundaries are not spanning in reality, “filler polygons" are created to complete the set. “Filler” Polygons may not represent reality with regard to cartography, naming or feature type. In order to create a spanning set, NAVTEQ created filler polygons for those counties with made up names and feature types.

- Where the Built-Up Area concept exists in reality, Built-Up Area polygons are included for Target Cities, Connector Cities, and other cities along the Connector Roads for which a ***Named Place*** POI is included.
- City boundaries for Target Cities only.
- Oceans (where applicable).
- Significant land use (major rivers and bodies of water).

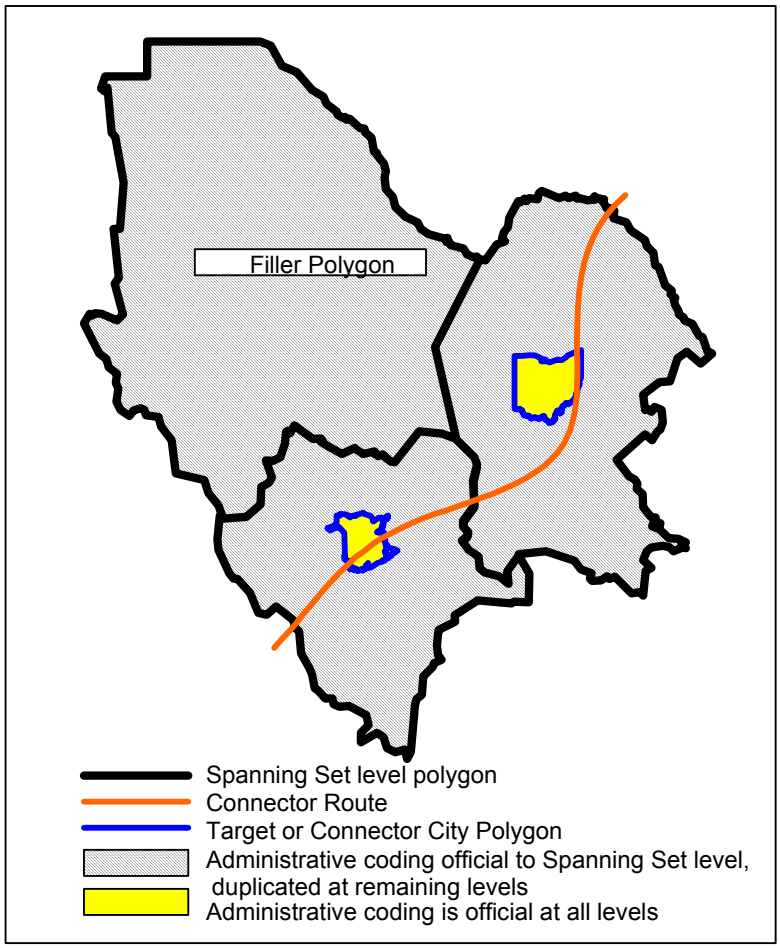


Figure 1-5

1.5.2.3 Administrative Coding

The Administrative Coding for the Connector Roads follows the official administrative structure for the country. Official administrative coding is reflected down to the level of the "Spanning Set" and duplicated at the remaining levels.

For example, Portugal has four Administrative Levels. The "Spanning Set" is Level 2. The administrative structure would be:

Admin Level	Admin Code Structure	Example	Named Place POI Required Y/N*
1	Official	Portugal	No
2	Official	Faro	No
3	Official Duplicated	Faro	No
4	Official Duplicated	Faro	No

*Note: The Named Place POIs are not included because there are no roads in these areas.

1.5.2.4 Feature Name

Primary Route number names and any other official names are applied to the Connector Roads in the Connector Cities and Other Cities along Connector Route where applicable. For example, a road may be named "US-23" in the rural area, but through a city it may have additional names if these are the more recognizable names on road signs.

1.5.2.5 Attributes Included (Connector Roads)

- Attributes meet Inter-Town specifications.
- Connector Roads outside the Target City are coded as ***Detailed City*** = N, ***In-Process Data*** = N, and ***Full Geometry*** = N.
- Connector Roads are accessible to ***Autos*** and ***Through Traffic***. Other access characteristics are coded per reality.

1.5.2.6 Attributes Included (Significant Intersecting Roads)

- In addition to being coded ***Detailed City*** = N, ***In-Process Data*** = N, and ***Full Geometry*** = N, Significant Intersecting Roads are coded ***Functional Class*** = 5.
- Significant Intersecting Roads that are multiply digitised are digitised as in *Figure 1-6*. The roads are connected at one point and one additional link is added.
- One ways may not be added for roads that are singly digitised.
- Names are added to Significant Intersecting Roads if they are available, but are not required.

- Significant Intersecting Roads are not necessarily accessible for ***Autos*** and ***Through Traffic***. All access characteristics are coded per reality.

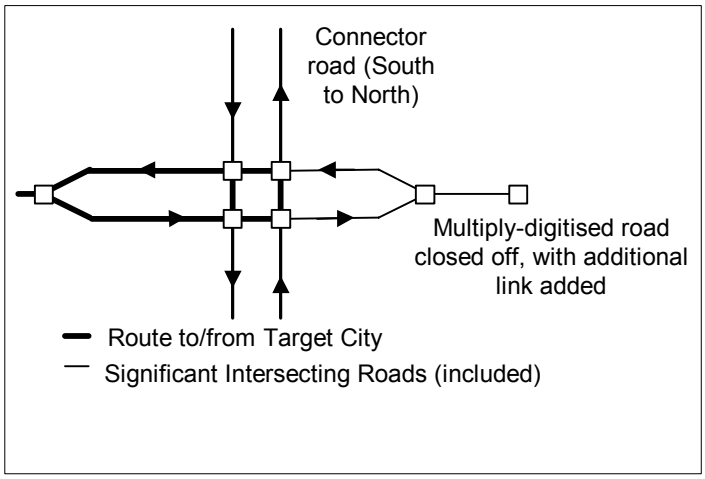


Figure 1-6

1.5.2.7 Signs and Conditions (Connector Roads)

- Signs are included:
  - At points along the Connector Roads where the driver must enter or exit the motorway.
  - Where a motorway splits into two or more motorways.
- Signs are not required for ramp interchanges that are not part of the Connector Network.
- Conditions (such as ***Special Explication***, ***Restricted Driving Manoeuvres***, and ***Construction***) are not required, but may be present.

1.5.2.8 POIs (Connector Roads)

- For Connector Cities, the ***Named Place*** POI is placed on a link with Functional Class(Level 1, 2, 3, or 4), open for autos all the time, and on a bi-directional road. The POI is placed in a central location, this can be a 'well known' street, the main railway station, or some other significant road that allows autos.
- For other Cities along Connector Route, if the ***Named Place*** POI falls along a path that is ***Multiply Digitised*** = Yes, links are added within the City/BUA for placement of the POI as shown in *Figure 1-7*.
- For other Cities along Connector Route, if the ***Named Place*** POI falls along a path that is ***Multiply Digitised*** = No, the POI is placed on the appropriate link.

- All POIs (except ***Named Place***) on the Connector Roads are collected and attributed according to Inter-Town specifications.

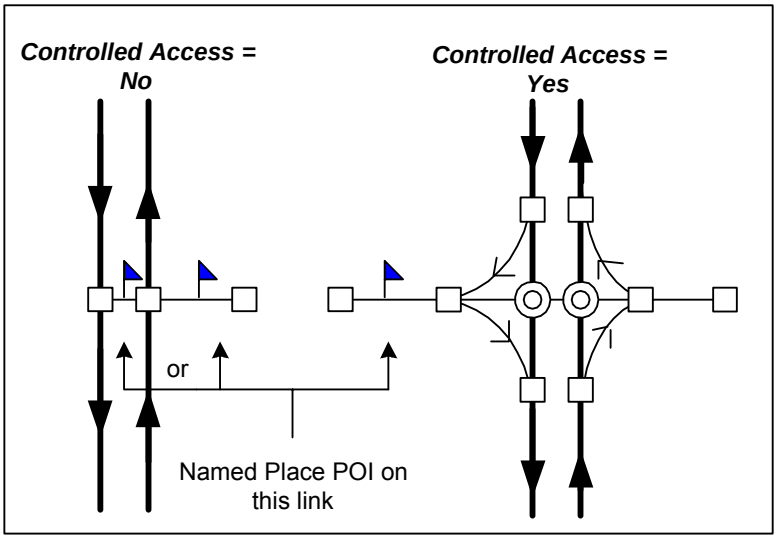


Figure 1-7

(This page intentionally left blank)

Geometric Representation

(This page intentionally left blank)

2.1 Introduction

Digitisation is the process of creating geometry. Features are digitised to represent real-world objects and non-physical entities such as geopolitical boundaries.

This section describes how the real world is represented in the database through links, nodes and shape points. The information provided in this section includes:

- Representation
- Transportation Network
- Cartography
- Polygon Formation
- Edgematching

2.2 Representation

The basic geometric primitives represented in NAVSTREETS source data file format (SIF+) are nodes, links, and polygons. A node can be further classified as either the end node of a link or the shape point (intermediate node) defining the geometric curvature of a link. A polygon consists of a closed set of 1 or more links representing the boundary of an area feature.

- Nodes can represent:
  - links intersecting at the same ***Z-Level***.
  - a change in attribute information (e.g., a name change, a bridge, tunnel, etc.).
  - an intersection with a cartographic feature such as an administrative border or park.
  - the geographic perimeter of a database.
  - the end of a link.

A Node describes a physical position in the database in terms of its longitude, latitude, and relative ***Z-level***. The DNDC stores geodetic coordinates in units of .00001 degrees latitude and longitude. The datum used is WGS84. There are two types of nodes: end point nodes and shape points.

- The shape points of a link can represent:
  - the curvature or sharp bend in the link that represents the real-world feature.
  - the crossing of links at different elevations - ***Z-Level***.

    Note: A node or shape point is required for all link crossings. A link crossing without a shape point or node is not allowed.

    Note: A node cannot be attached to more than seven links.

- Links can represent:
  - Navigable Features (e.g., Roads).
  - Non-Navigable Features (e.g. links that comprise a polygon).

    Note: A link contains two end node points and fewer than 490 shape points.

    Note: The minimum length of a link is 2 metres/7 feet.

- Polygons can represent:
  - Polygons are comprised of a closed set of links (e.g., lakes, parks, municipalities).

2.3 Reference Node and Non-Reference Node

Reference Node and ***Non-Reference Node*** are identified using the following rules:

- The ***Reference Node*** is the node with the lower latitude. See Example 1 in *Figure 2-1* where A is the ***Reference Node***.
- If the latitudes of both end nodes are identical and their longitudes differ, the ***Reference Node*** is determined by the end node with the lower longitude. See Example 2 in *Figure 2-1* where A is the ***Reference Node***.
- If, however, the latitudes and longitudes of both end nodes are identical but their ***Z-Level***s are different, the ***Reference Node*** is determined by the end node with the lower ***Z-Level***. See Example 3 in *Figure 2-1*.

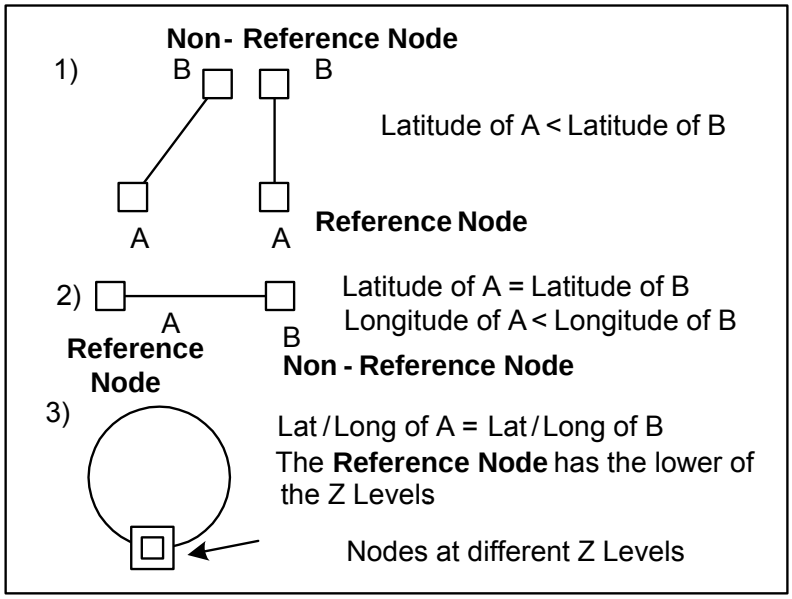


Figure 2-1

- The ***Non-Reference Node*** and ***Reference Node*** of a link may be the same node. This is called a teardrop. A teardrop link always contains at least two shape points. Teardrops are only valid for features other than Road. Nodes are added to avoid teardrop situations on roads. See *Figure 2-2*.

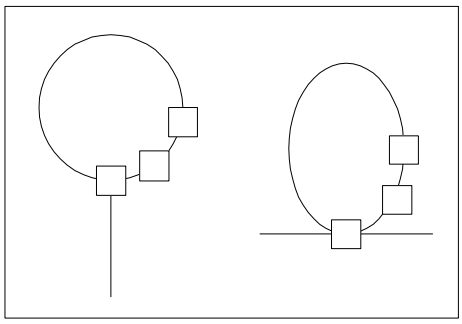


Figure 2-2

- Side orientation is established using the ***Reference Node*** and ***Non-Reference Node***. The ***Reference Node*** is located at the "beginning" of a link. The ***Non-Reference Node*** is located at the "end" of a link. Side orientation is used to assign sides to a link. The "right side" of a link is the side on the right when facing the ***Non-Reference Node***, or "end" of a link, from the ***Reference Node***, or "beginning" of the link. The right and left sides of a link are used to assign attributes such as address ranges and administrative area information.

2.4 Polygon Formation

A polygonal feature is comprised of a closed set of links. In this case, "closed" is defined as being connected at X and Y co-ordinates, without a gap in geometry, name, or Feature Type.

A polygon is composed of a number of links. A single link can participate in several polygons. Each polygon has its own Polygon ID that is published in the Link Usage Block Record (Position 30) for each link that comprises that polygon. The polygon name is published in a Link Usage Feature Record for each link. The Usage ID is the same for the Link Usage Block Records and the Link Usage Feature Records.

If an administrative area or cartographic feature is present in two distinct geographic areas, it is represented with two polygons as shown in *Figure 2-3*. If the administrative area (for example: City B) or cartographic feature has a "hole" in it, it is represented by one polygon. See *Figure 2-4*.

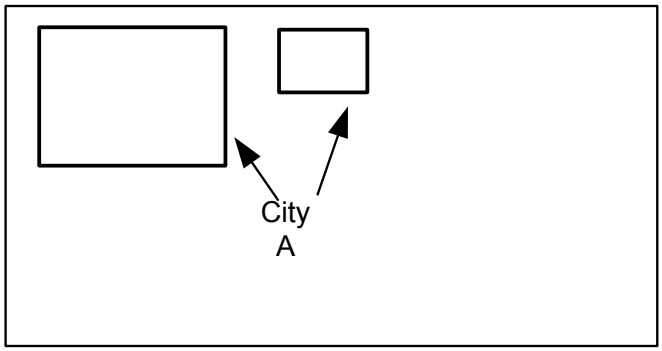


Figure 2-3

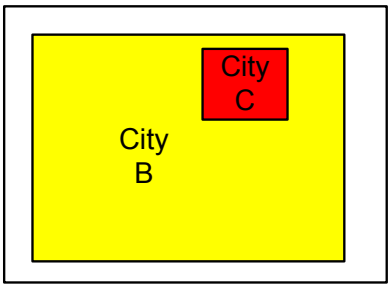


Figure 2-4

A polygon is either outline formation or full formation. Outline formation can be used for all polygons not listed in the full formation rules below. Outline formation requires representing only the perimeter of the feature. A lake inside of a park is an example of outline formation, as shown in *Figure 2-5*. The park feature and feature code are only represented on the perimeter of the park.

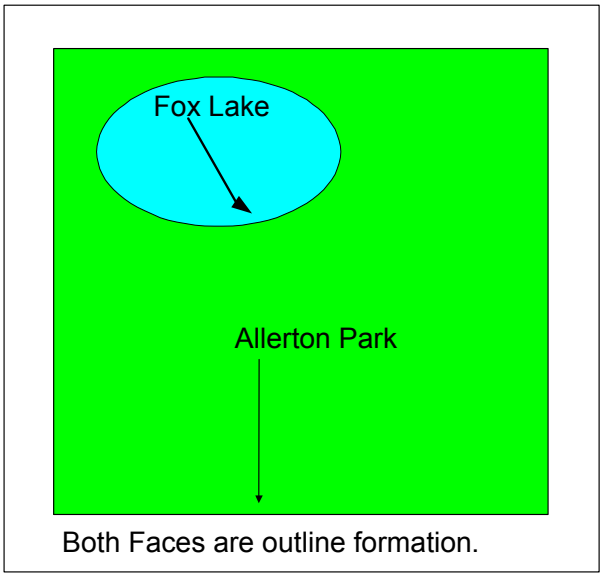


Figure 2-5

Full Formation requires digitisation of the perimeter and "holes" or "pockets" that are enclosed within a polygon but are not considered a part of that polygon. Full formation is required for water polygons when islands exist and airport runways when they have holes. In both cases, the holes must meet polygon size inclusion rules. Small islands that contain roads must always be full formation, regardless of the size. In some cases administrative boundaries are represented using full formation polygons. When using full formation representation, the "hole" is assigned the ***Feature Name*** and Feature Type of the polygons, as shown in *Figure 2-6*.

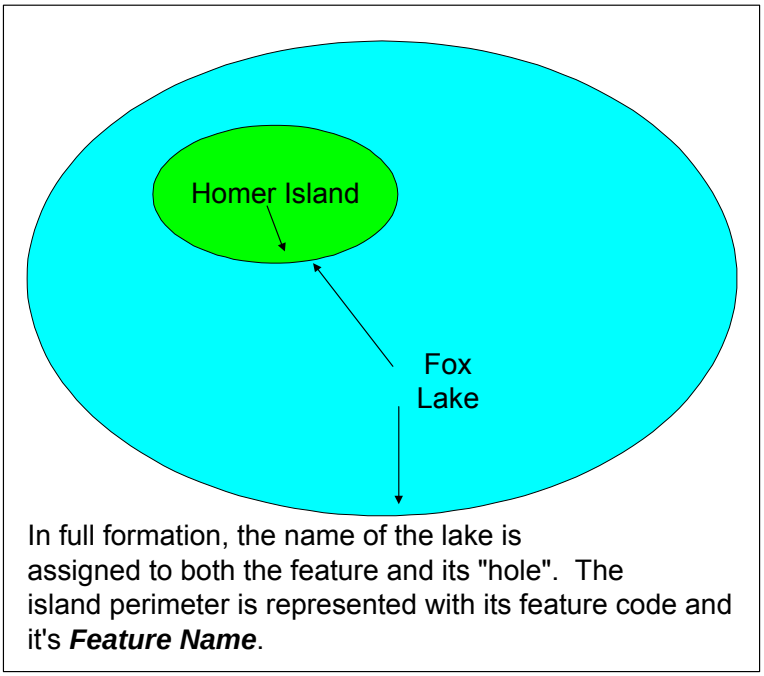


Figure 2-6

Unnamed islands located inside a water polygon receive the same ***Feature Name*** and Feature Type of the water polygon. See *Figure 2-7*.

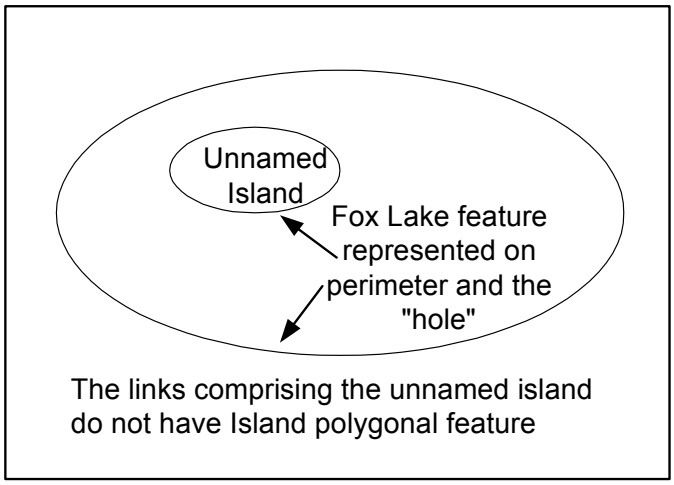


Figure 2-7

2.5 Generalisation Guidelines

Generalisation refers to the process of reusing existing links when cartography and administrative boundaries are created. If existing geometry is within the generalization guidelines below, then the feature is added to the existing links instead of creating additional geometry.

Roads and ferries cannot share geometry with railways, runways, country boundaries, or any water links. Additionally, Building/Landmark polygons which require sufficient detail to make the building recognisable, can never share geometry with navigable links. All other cartography may share geometry based on the generalisation rules. For example, a road link or railroad link may also have a feature of state park or hospital.

Cartography and administrative boundary features in Detailed City areas can be generalised up to:

- 25 metres/82 feet (except built-up areas)
- 100 metres/328 feet for built-up areas

Cartography and administrative boundary features in Inter-Town areas can be generalised up to:

- 250 metres/820 feet (except built-up areas)
- 100 metres/328 feet for built-up areas

Figure 2-8 illustrates both the real world and NAVSTREETS source data file format (SIF+) representation of how a park and a navigable feature share links.

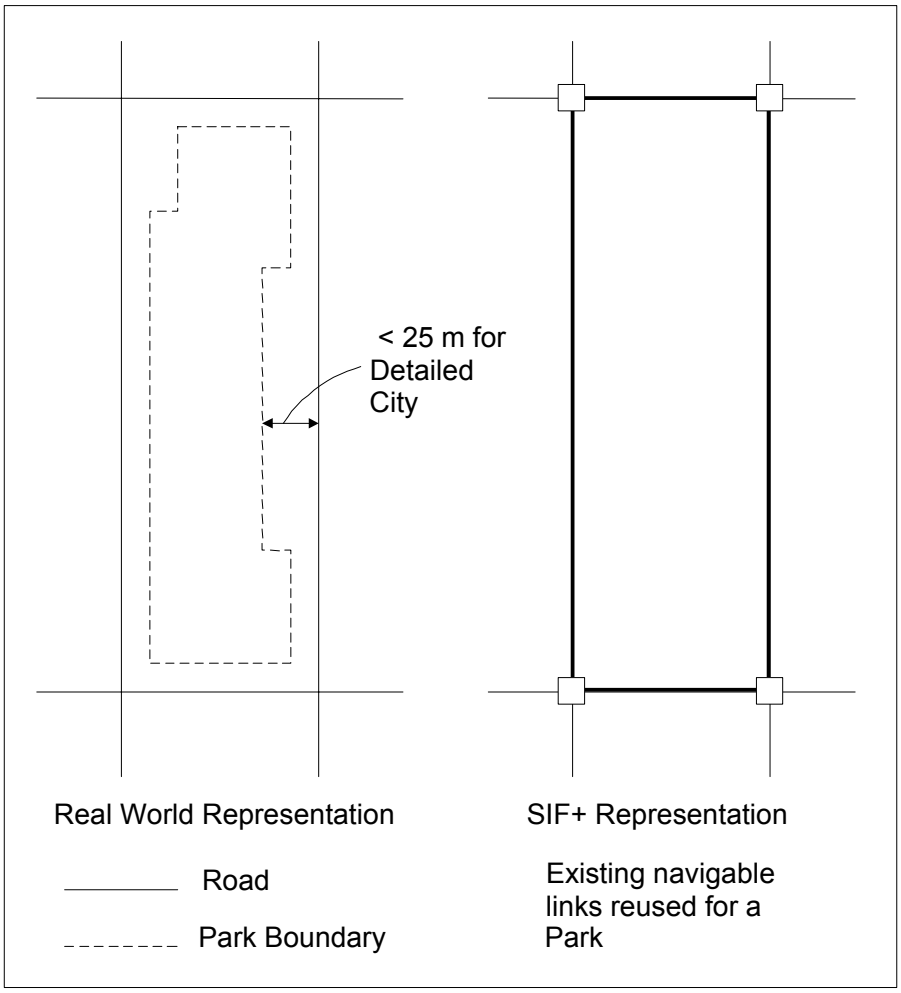

< 25 m for
Detailed
City
Real World Representation
SIF+ Representation
Road
Park Boundary
Existing navigable
links reused for a
Park

Figure 2-8

2.6 Transportation Network Representation

2.6.1 Centreline Digitisation

The method of centreline digitisation is used to represent objects as a single line. A centreline represents the median distance between the outer edges of an object. For example, the centreline of a road indicates the middle of a roadbed, as shown in *Figure 2-9*.

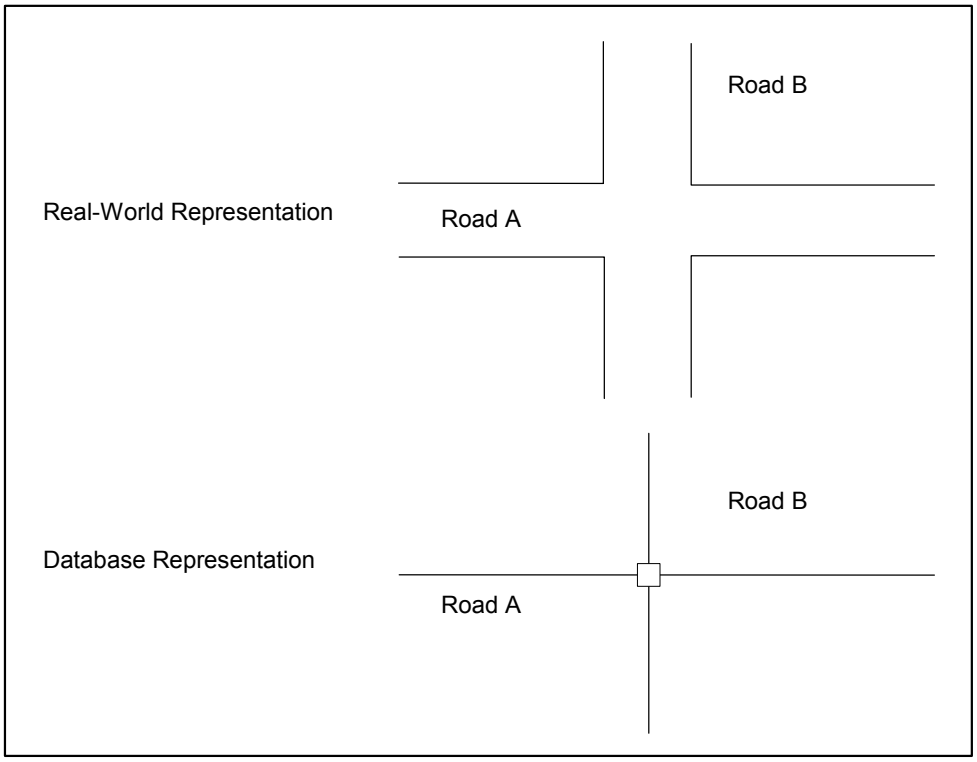


Figure 2-9

In centreline digitisation, any point along the link cannot deviate more than 3 metres/10 feet perpendicular to the centreline of the road relative to its end points. See *Figure 2-12* .

Nodes are represented within 15 metres/48 feet of absolute ground truth for Detailed City and Connector Roads and within 100 metres/328 feet for Inter-Town.

Links with ***Enhanced Geometry*** = Y conform to accuracy requirements of +/-5 metres for absolute position and +/- 1 metre for relative position.

Note: Absolute positional accuracy refers to the tolerance within which the latitude and longitude values of nodes and intermediate points of the edge representing the centreline of a road represent their true latitude and longitude position on earth.

Note: Relative positional accuracy refers to whether each node and intermediate point is located in the correct relative position to each other to accurately represent the shape of the centreline of a road.

In *Figure 2-10*, the absolute positional accuracy is within the requirements but the shape of the road is not accurate due to poor relative positional accuracy.

In *Figure 2-11*, the absolute positional accuracy is not within the requirements but the shape of the road is maintained (relative accuracy).

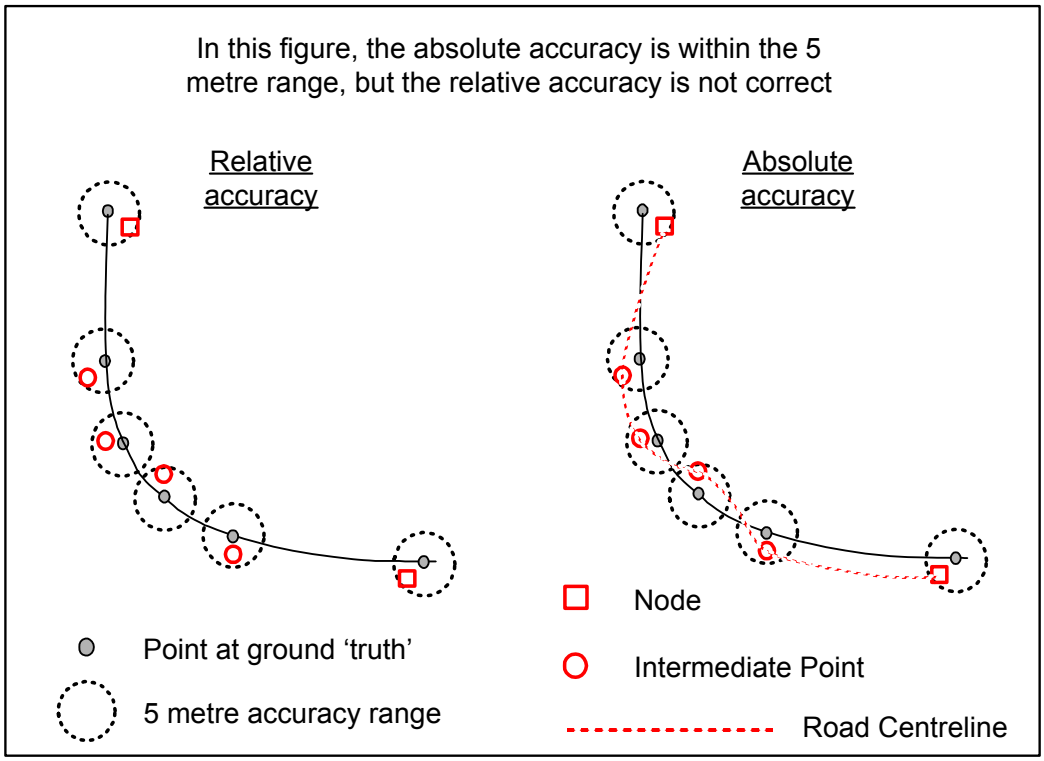


Figure 2-10

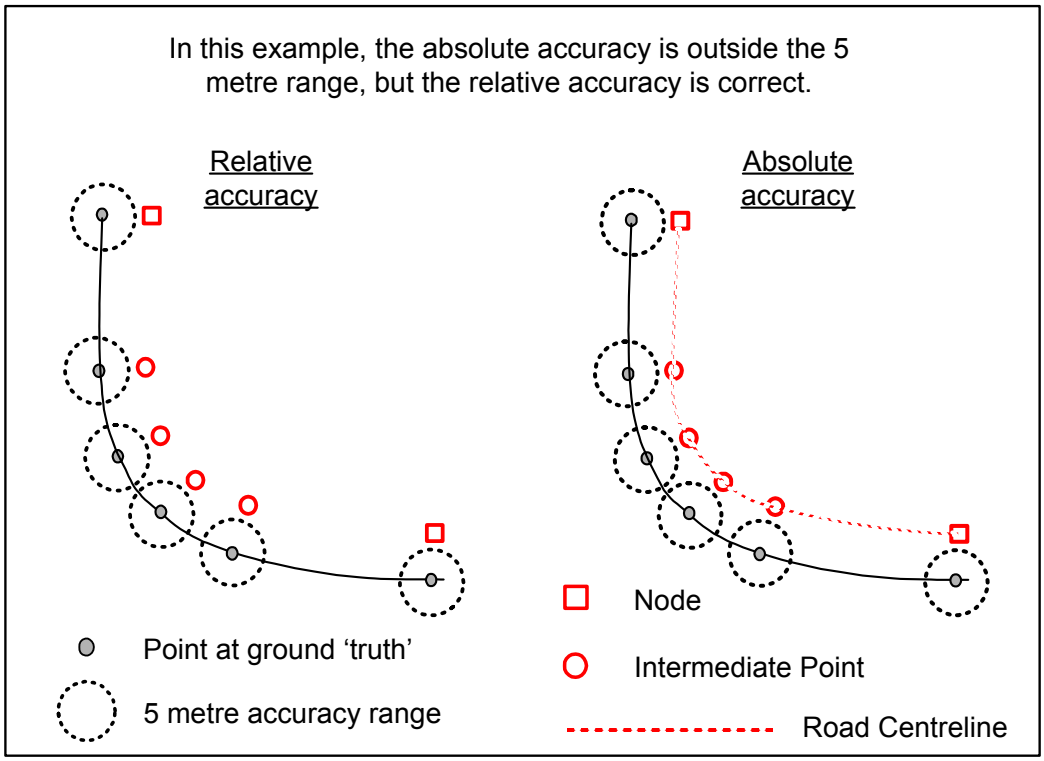


Figure 2-11

The requirements above may not apply to ***In-Process Data*** = Yes roads; the accuracy varies based on the country and source used for adding these Road Network Coverage/Full Coverage Links.

2.6.2 Curved Features

Shape points represent the curves along a link. A minimum number of shape points are used to maintain a curve, within 3 metres/10 feet of a road's centreline. The minimum distance between nodes and among nodes and shape points, is 2 m/7 ft, as shown in *Figure 2-12*.

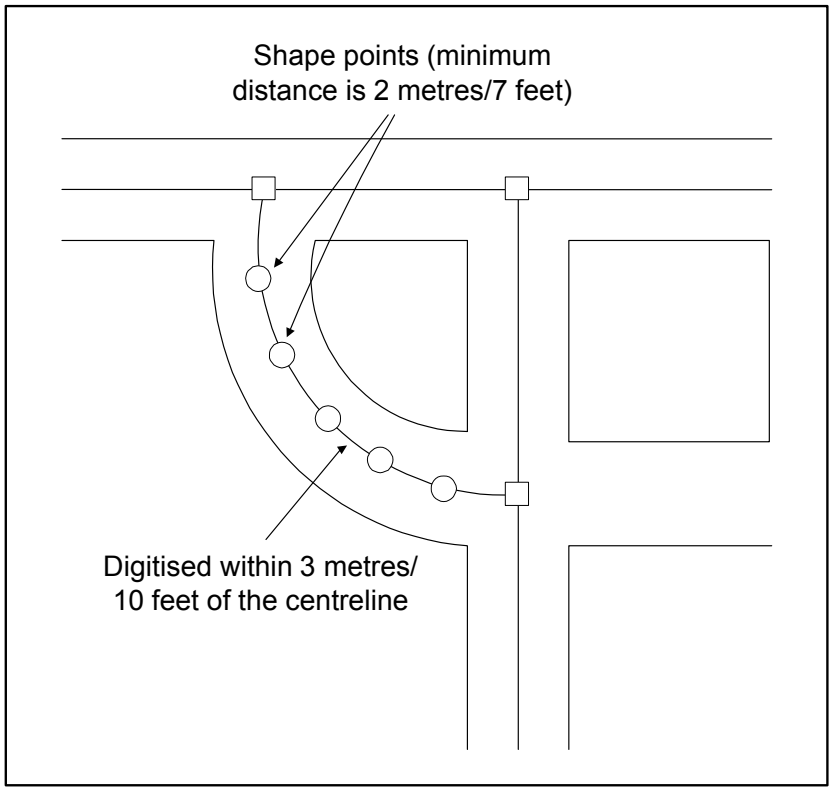


Figure 2-12

2.6.3 Multiple Digitisation

A single road may have physically separated roadbeds. Multiple digitisation is the method of representing these roads as multi-carriageways. Multiple digitisation occurs when the distance separating these roadbeds becomes significant (see bullets below) for map matching. For example, when opposing lanes of traffic diverge to a point where they meet the criteria for multiple digitisation, the roads are separately digitised, as shown in *Figure 2-13*.

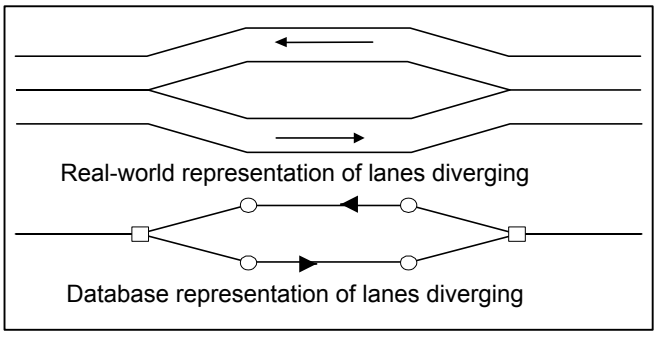


Figure 2-13

Roads are multiply digitised when one or more of the following situations exist:

- The road has limited access via ramps (slip roads) and crossings not at grade (motorways).
- A physical divider exists that is wider than 3 metres/10 feet, and longer than 40 metres/131 feet. If the divider stops for more than 25 metres/82 feet, the digitisation changes from multiply to singly digitised. A series of dividers where the gaps are shorter than 25 metres/82 feet are treated as one divider when measuring the length. See *Figure 2-14*.

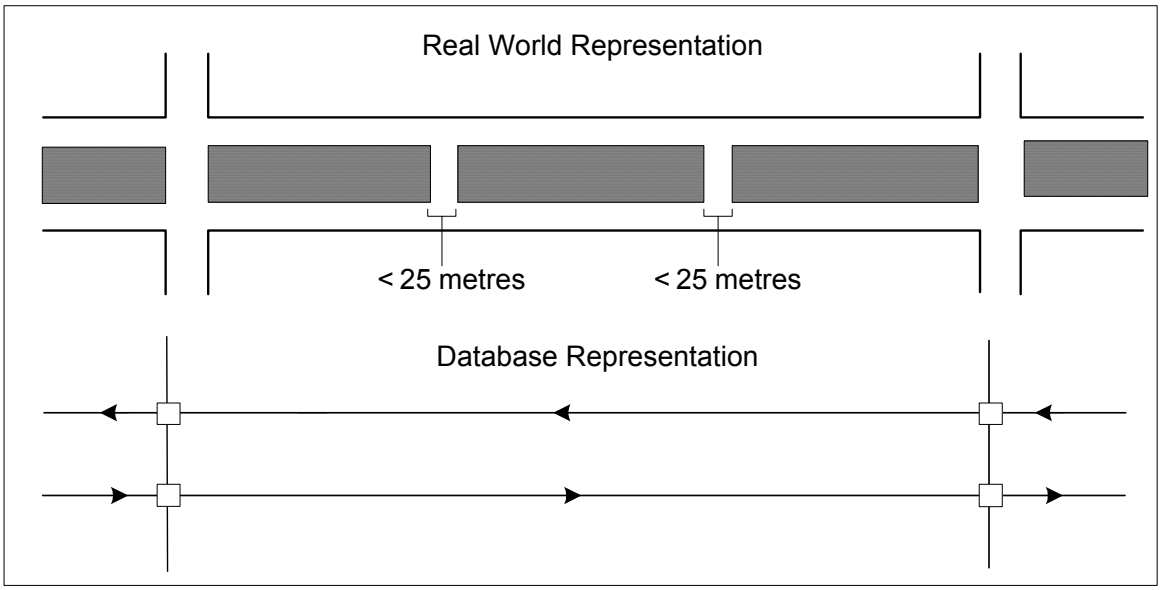


Figure 2-14

- The distance between the centrelines of the opposing traffic lanes is greater than 25 metres/82 feet and a physical divider of any size exists between these lanes.

2.6.4 Separately Digitised

Roads may be separately digitised when one of the following conditions exists:

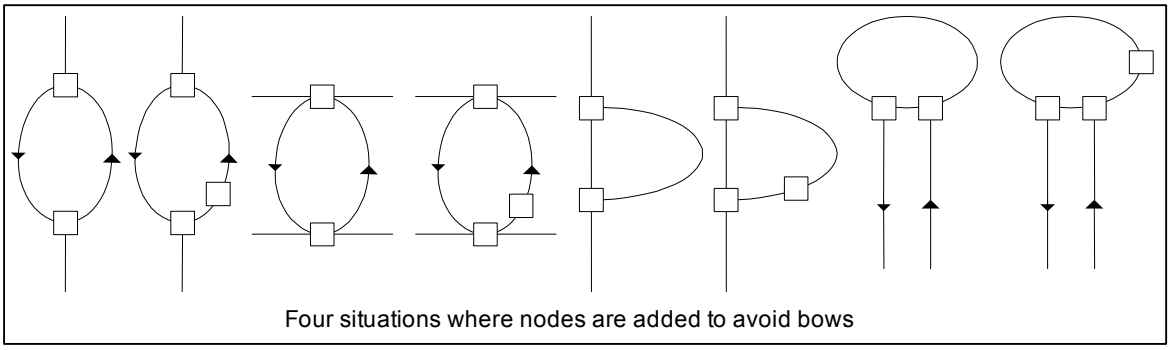
- A road with one direction of traffic flow (one-way) splits into two parallel one-way roads separated by a divider and it is navigationally significant.
- A road is separated by a physical or a legal divider and is designated as either for reversible direction of traffic flow, for High Occupancy Vehicles (HOV), or for public vehicles.
- The road meets the criteria of a frontage road, regardless of the size of the divider that separates it from the main road.

2.6.5 Bows and Teardrops

Bows are situations where two links share the same ***Reference Node*** and ***Non-Reference Node***. Teardrops are situations where a Link's ***Reference Node*** and ***Non-Reference Node*** are at the same latitude, longitude, and ***Z-Level***, e.g., a cul-de-sac. Bow and teardrop configurations are not valid for navigable links.

Nodes are added to break bows and teardrops according to the following rules:

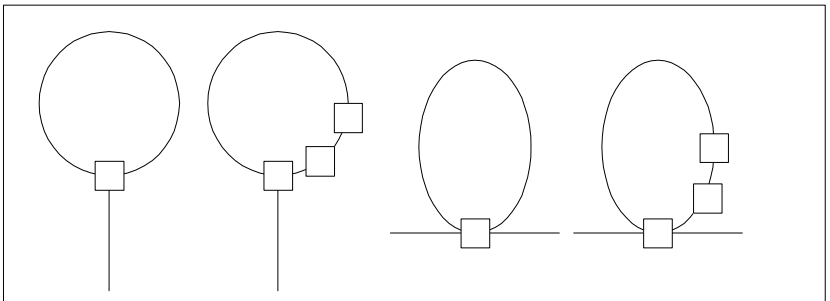
- When two links share the same ***Reference Node*** and ***Non-Reference Node*** regardless of naming or any other attributing, a node is added to eliminate the bow situation. See *Figure 2-15* for examples.



Four situations where nodes are added to avoid bows

Figure 2-15

- When a link starts and ends at the same latitude and longitude, it is broken to eliminate the teardrop situation by adding two nodes. See *Figure 2-16* below for examples.



Two situations where nodes are added to avoid teardrops.

Figure 2-16

2.6.6 Ferry Route

A ferry route is represented as a generalised connection between the road points. In *Figure 2-17*, the ***Z-Level*** changes for the node where the road connects to the water because a road link and a hydrography link cannot intersect at the same ***Z-Level***.

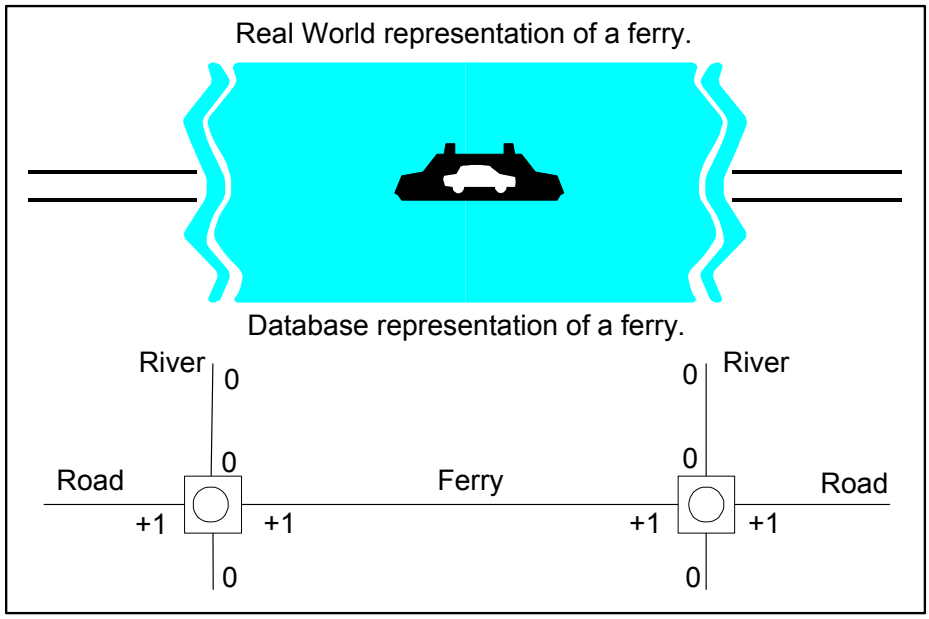


Figure 2-17

Ferry crossings are represented as shape points with a ***Z-Level*** change between the ferry routes, as shown in *Figure 2-18*. The crossing cannot be represented as a node, since this would imply connectivity. Ferry routes cannot connect at a node except when connecting with links at the shoreline.

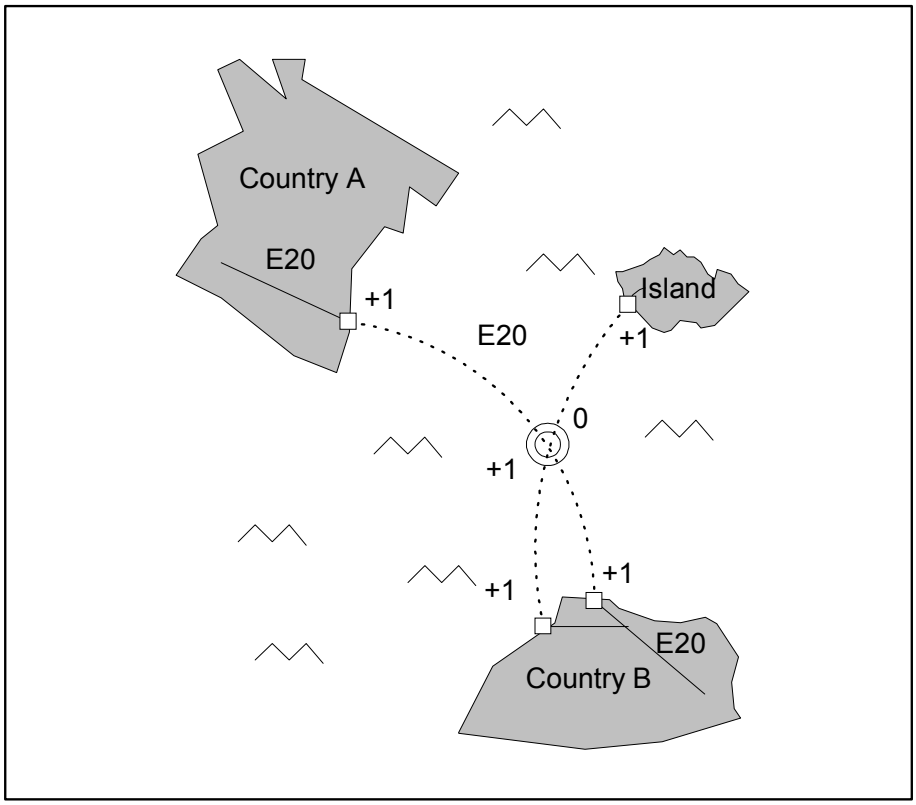


Figure 2-18

Ferry crossings on a linear river are represented by a short ferry link. The nodes are offset a short distance on either side of the river. See *Figure 2-19*.

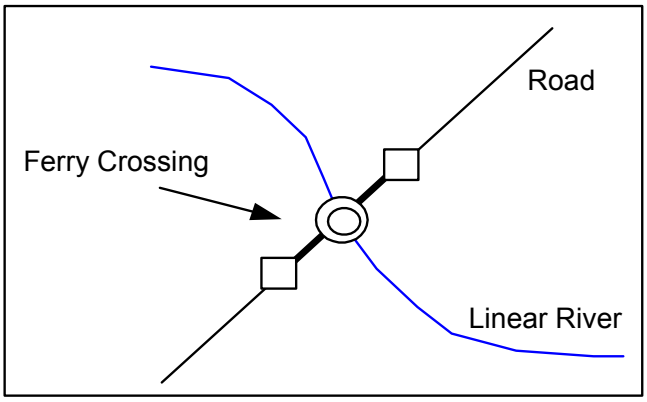


Figure 2-19

2.6.7 Pedestrian Zones

Pedestrian zones with a closed-off shopping area that is less than 30 metres/98 feet in width are represented by the centrelines of the addressed streets. The real world representation is shown in *Figure 2-20*.

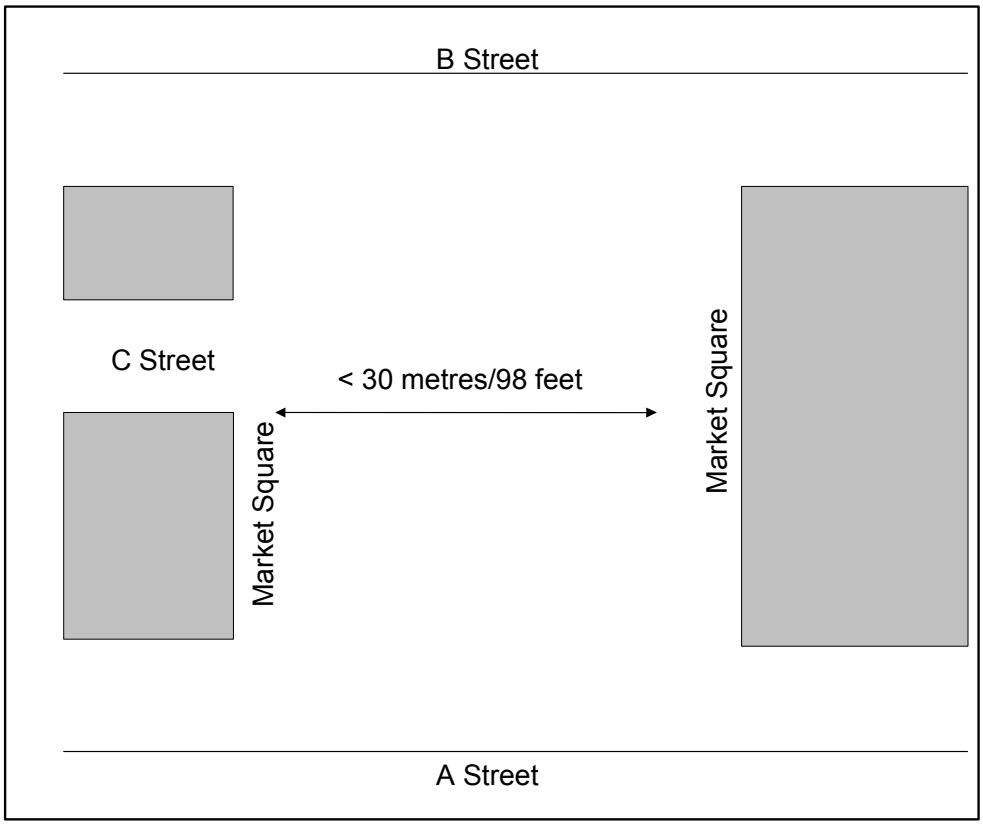


Figure 2-20

Figure 2-21 below shows how the pedestrian zone described above is represented in the database.

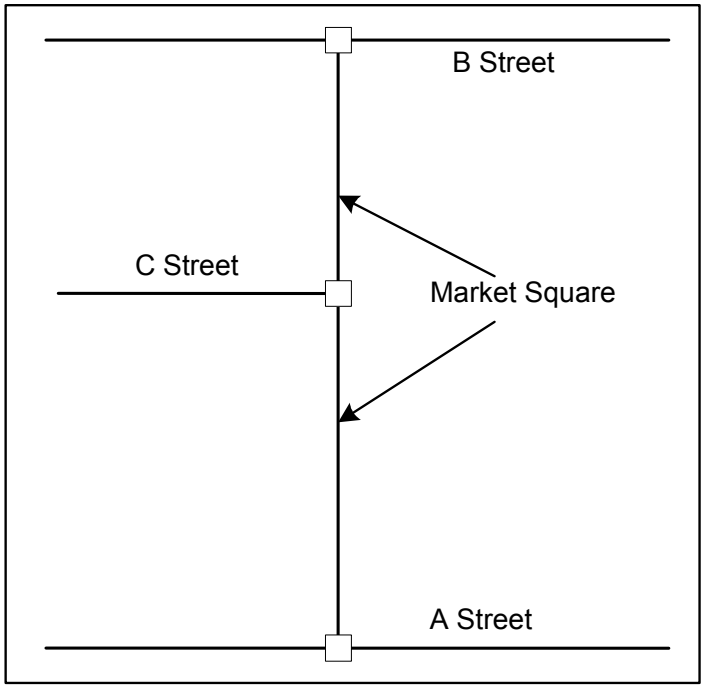


Figure 2-21

A pedestrian zone wider than 30 metres/98 feet is represented using Pedestrian Area (***Feature Type*** = 900158), reusing existing links, as shown in bold in *Figure 2-22*.

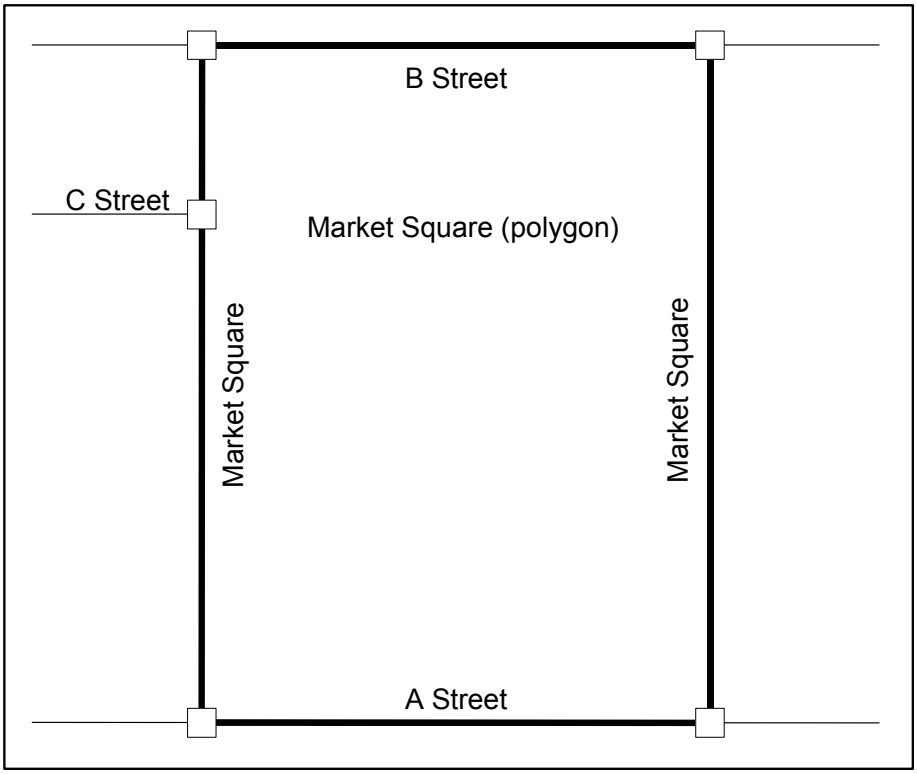


Figure 2-22

2.6.8 Roundabouts

A roundabout is represented when a divider of any size exists within the roundabout and the diameter of the entire roundabout is equal to or greater than 25 metres/82 feet, as shown in *Figure 2-23*. Smaller roundabouts (10-25 metres) may be included where significant or available from a digital source. The geometry must function as a roundabout to be included. Otherwise, the roundabout is represented as a node.

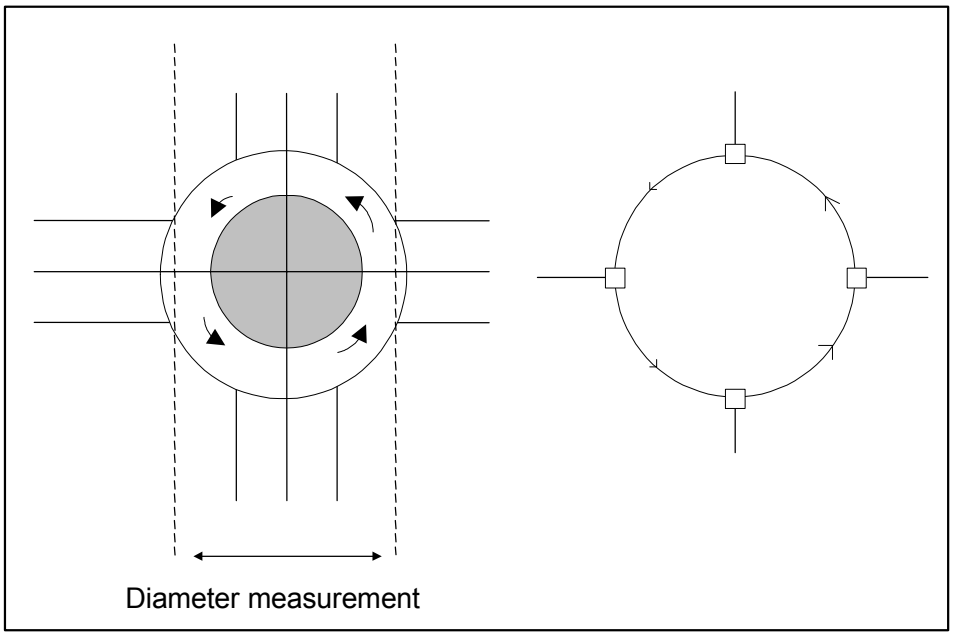


Figure 2-23

2.6.9 Traffic Islands and Turn Lanes

Traffic islands and turn lanes are separately digitised when any side of the physical or painted barrier is longer than 25 metres/82 feet, as shown in *Figure 2-24*, *Figure 2-25*, and *Figure 2-26*.

A road that is classified as a ramp and has a physical divider that meets the criteria for digitisation of a turn lane/traffic island is separately digitised.

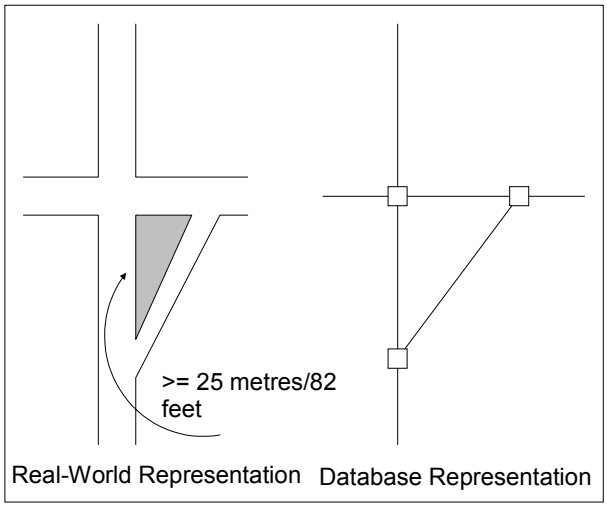


Figure 2-24

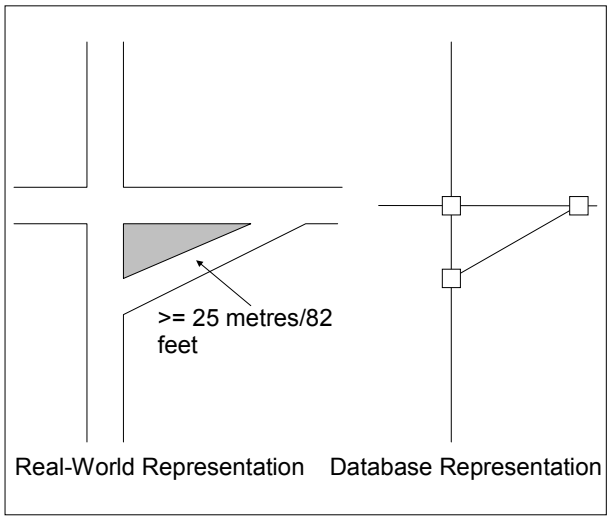


Figure 2-25

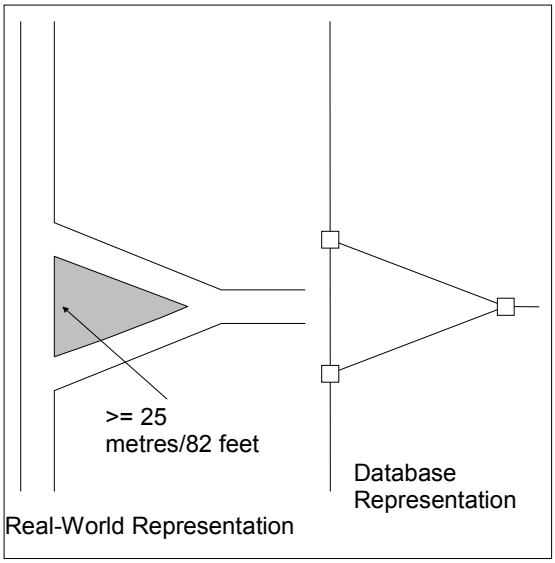


Figure 2-26

2.6.10 Undefined Traffic Areas

An undefined traffic area is a paved area where a car can travel but there are no legally defined traffic paths.

Undefined Traffic Area is represented as a polygon using the outline of the paved area. All links entering the unstructured traffic area are connected at a node in the approximate centre, as shown in *Figure 2-27*. These links are attributed as ***Undefined Traffic Area Internal*** = Y. These links do not represent real roads; GPS track does not match to any of these links.

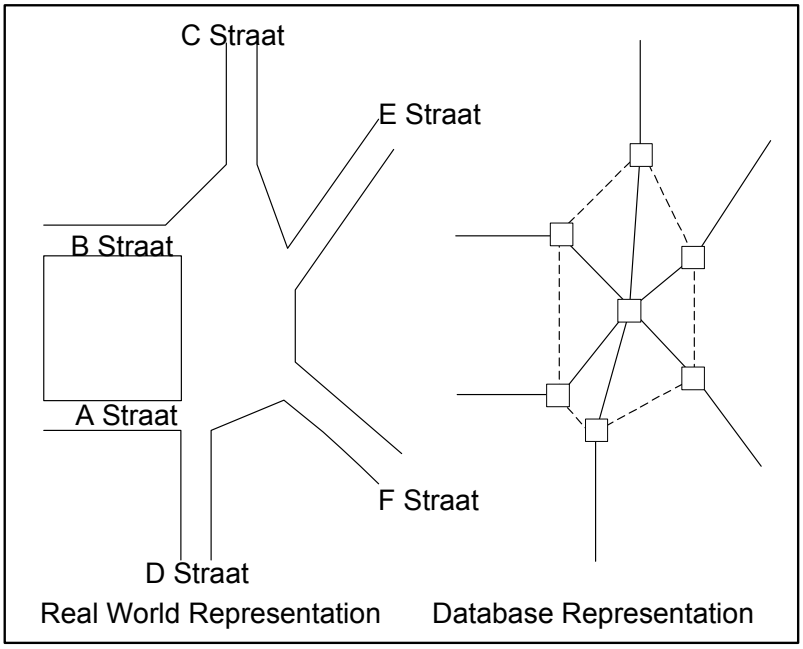


Figure 2-27

2.6.11 Toll Booths

Toll Booths are represented by a short link roughly defining the extent of the toll booth area. See *Figure 2-28*.

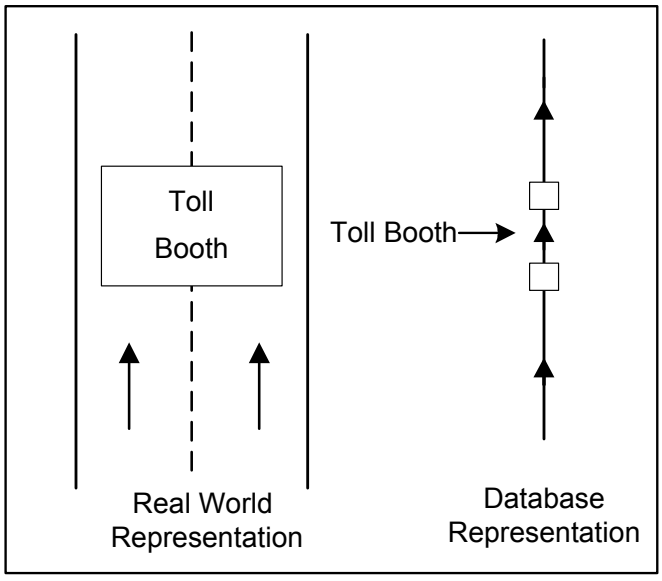


Figure 2-28

2.6.12 Airports

The overall purpose of airport geometry is to provide good guidance and access to the main destinations and facilities within the airport (terminals, rental car agencies, parking lots, etc.) without an excessive amount of detail.

Thus, the following geometry is included:

- Confirmed named roads
- Arrival and departure access roads
- Rental car return and pick-up access roads
- Parking access roads
- Public vehicle roads (buses, taxis, etc.)
- Any other public roads needed for connectivity.

2.7 Cartography

2.7.1 Airports

The airport is represented as a polygon.

The airport polygon surrounds the entire area of the airport, including buildings, parking areas, and terminals. In addition, the runways and aircraft taxi strips are also represented as separate polygons within the airport polygon. These areas are referred to as Aircraft Roads. Aircraft Roads polygons must be full formation polygons. See *Figure 2-29*.

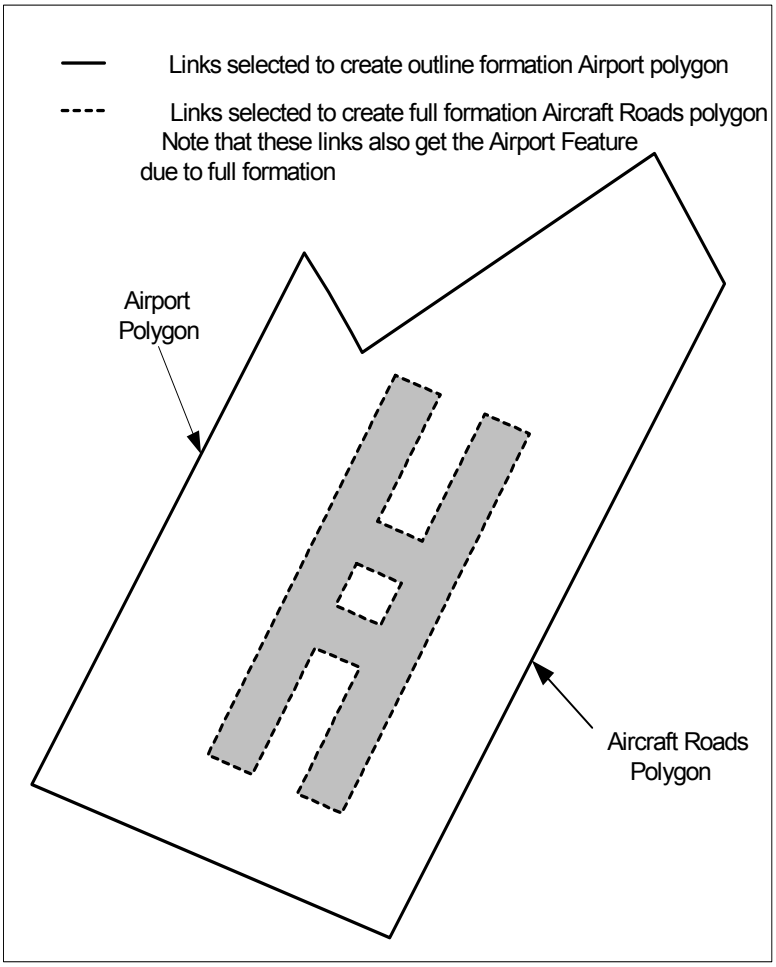


Figure 2-29

2.7.2 Building/Landmark Polygons

A ***Building/Landmark*** polygon represents the outline of the base of a building or man-made structure. This can be used for enhanced map display.

Each building or landmark is represented as a separate polygon.

Note: Duplicate polygons are not added in order to match exonym names that exist for a corresponding POI.

When a single entity consists of multiple adjacent buildings, each building is represented by a separate polygon. For example, a hospital complex that consists of multiple separate buildings is represented by multiple ***Building/Landmark*** polygons.

When a building or landmark surrounds an open area of ground that is visible on source materials, the ***Building/Landmark*** polygon is created using Full Formation representation).

2.7.3 Built-Up Area (BUA) For European and Canadian Databases

2.7.3.1 General rules

- Built-up area boundaries are generalised. Existing geometry is reused as much as possible, including municipality or other administrative boundaries.
- When the same name built-up area is separated by an empty area that is wider than 200 metres/656 feet, two separate polygons are created with the same name. Sequence number or extra information is not added to the polygon name.
- If a river or a motorway (controlled access road) goes through the built-up area, the built-up area is not broken into two polygons.
- Industrial areas are considered part of the built-up area. If the industrial area meets the size inclusion criteria, it is also made into a polygon. If the industrial area is separated by an empty space of more than 200 metres/656 feet, the area is not included in the Built-up Area polygon.
- The polygon represents the outline of the built-up area and does not have any islands or holes within it.
- In cases where a built-up area cannot be defined because the houses are scattered, no BUA polygon is included.
- Both sides of a multi-digitised road are either within or outside of the BUA polygon.
- Built-up areas that are adjacent to one another are made into separate polygons with the name of the built-up area they represent. See *Figure 2-30*.

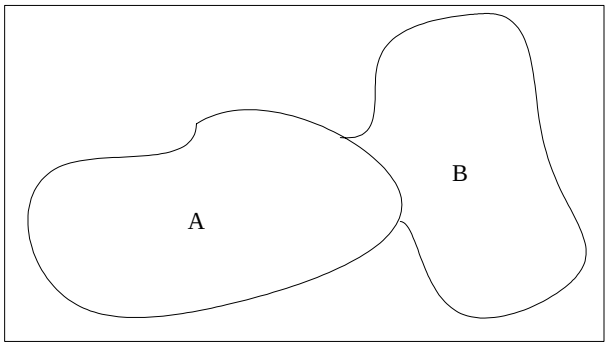


Figure 2-30

- A separate Built-up Area Polygon is not created for settlements whose built-up area is completely within the built-up area of the municipality. See *Figure 2-31*.
- A built-up area polygon is not included for any synonym names.

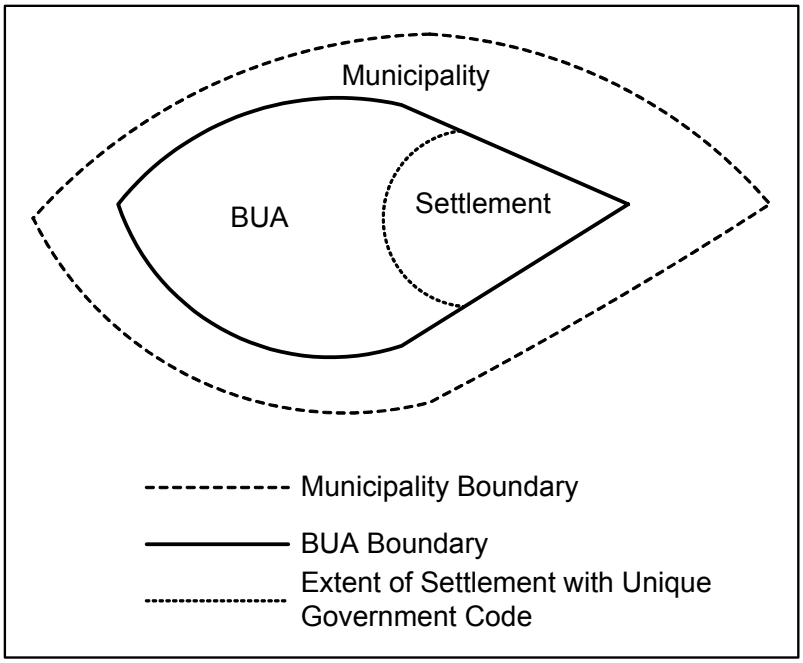


Figure 2-31

2.7.3.2 Detailed City

A built-up area polygon is included for every settlement that has settlement level coding, with one exception. When the built-up area of a settlement is completely within the built-up area of the municipality, only one built-up area polygon with the name of the municipality is included.

For example, even though settlement level coding is included for Stuttgart, the settlements are within the built-up area of the municipality of Stuttgart. There is only one built-up area polygon with the name of Stuttgart. Note: This is an exception to the inclusion rule of 250.000 metres.

2.7.3.3 Inter-Town

A built-up area polygon is included for every settlement that is included, except when the houses are scattered.

2.7.4 Colonia

A Colonia (LandUseA - Layer) is a cartographic feature representing a neighbourhood area. This is included only in Mexico. In urban areas, Colonia polygons, are contained within a Built-up Area polygon. In areas where Colonia data is available, a Built-up Area polygon may contain one Colonia polygon or multiple Colonia polygons. For example, in *Figure 2-32*, Built-up Area 1 contains Colonias A, B, and C. Built-up Area 2 contains only Colonia D.

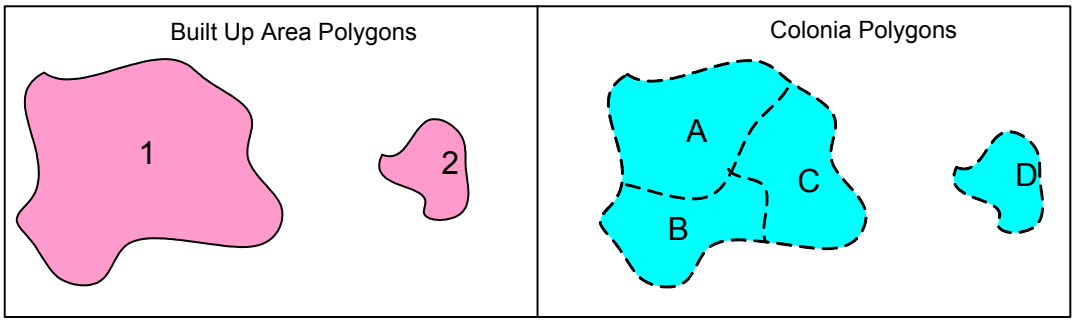


Figure 2-32

Colonia data in non-urban areas is not available at this time.

2.7.5 Congestion Zone

A Congestion Zone is a cartographic feature representing the boundaries of a congestion zone. This feature is included in London and Stockholm only. See *Figure 2-33* and *Figure 2-34*.

Figure 2-33

Figure 2-34

2.7.6 Hurricane Prone Area

Hurricane Prone Area polygon identifies areas subject to the same severity rating risk in case of hurricane.

The Hurricane Prone Area feature type polygon can be used for map display to highlight areas subject to a specific hurricane risk level. Hurricane Risk Area polygon are usually related to a corresponding evacuation phase.

- Hurricane Prone Area polygon is included only in the U.S.
- Hurricane Prone Area polygon can only exist on land mass.
- Polygon name is included if present on governmental sources.
- One or more polygon is included to represent areas subject to hurricane risk as in *Figure 2-35* below.

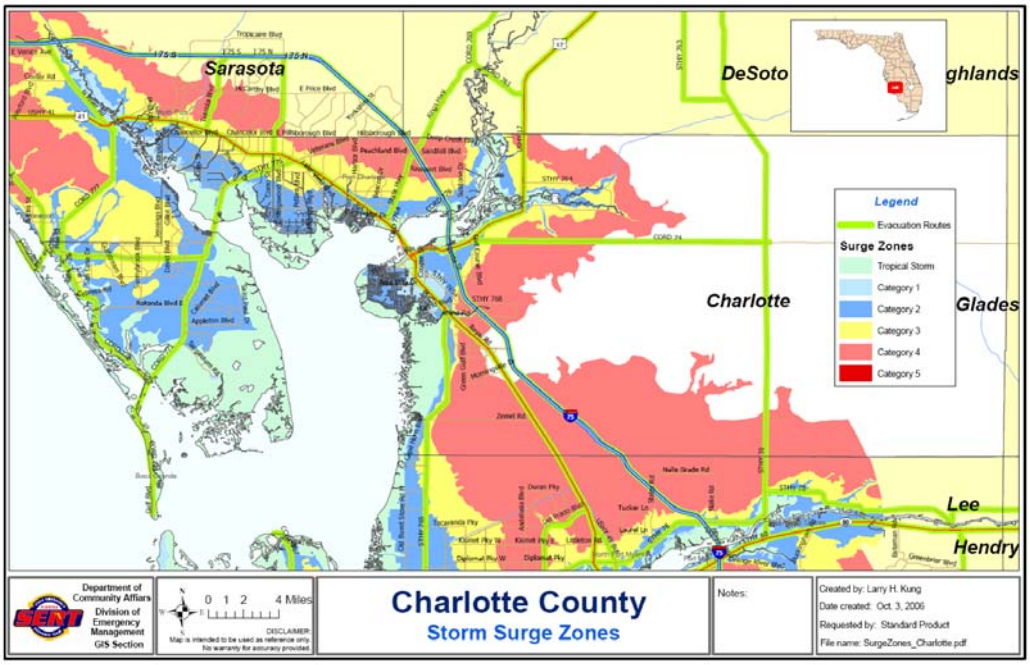


Figure 2-35

2.7.7 Parking Lots

When a parking lot is adjacent to a feature, the parking lot is inluded within the boundary of the polygon, as shown in *Figure 2-36*.

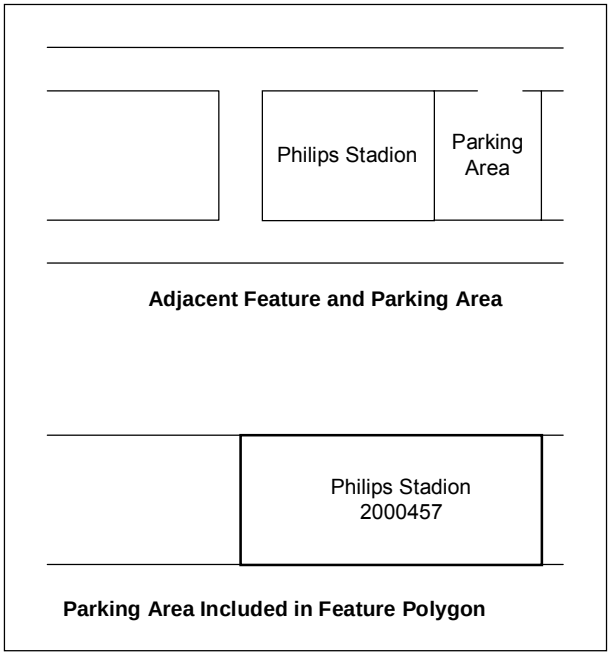


Figure 2-36

In Europe, parking lot is included in the measurement of the polygon for size inclusion.

In North America, parking lot is not included in the measurement of a cartographic feature. For example, when measuring a shopping mall to determine size inclusion, only the size of the buildings is measured. The parking area is not included.

2.7.8 Hydrography

A waterway is represented until it becomes permanently thinner than the width for linear water inclusion rules. Intermittent lakes or rivers are not included.

Water Feature Types do not share geometry with Road Network or Railroad features.

In Inter-Town, when the area of a set of water bodies combined is greater than 1 million metres^2/ 10,800,000 feet^2, individual lakes or ponds are included and are digitised as a separate water feature when the area is at least 100.000 metres^2/1.080.000 feet^2.

Water polygons (except Oceans) do not overlap. See *Figure 2-37*.

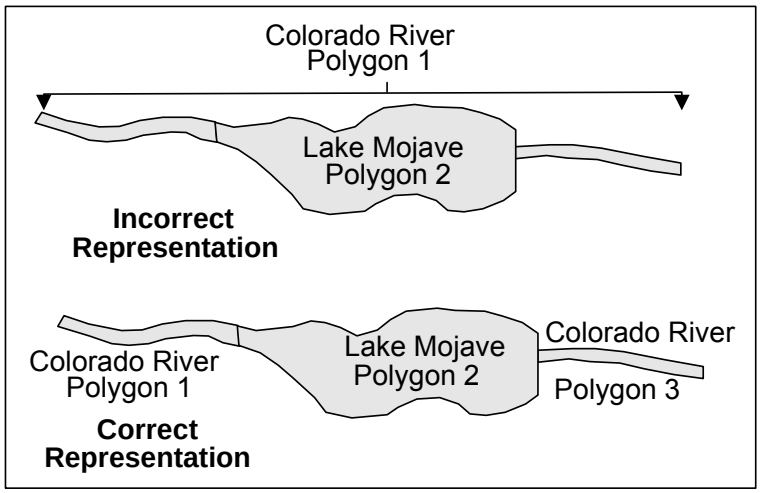


Figure 2-37

2.7.9 Oceans

Oceans (Feature Type 0500116) follow the edge of the land. If, however, there is another water feature which extends past the land, the ocean is represented using the outer link of the water feature. This occurs only for water features that are included as separate features based on the inclusion sizes, such as a bay or a harbour. See *Figure 2-38* and *Figure 2-39*.

2.7.9.1 Geometry

- Oceans are represented as polygonal features. For additional information, refer to Polygon Formation section.
- The ocean polygons overlap in order to create a more aesthetically pleasing display. This overlap exists when databases are merged. See *Figure 2-40* and *Figure 2-41*.
- When two countries are less than 200 kilometres apart, the Ocean geometry is coincident with the other country's landmass. In these cases it is necessary to exactly 'match' the Ocean geometry with the landmass from the opposing country. Example: The ocean (Nordsee) between the Netherlands and the UK.

  Note: Matching means 'node on node' and 'shape on shape'. The nodes and shapes along the shoreline should be ***Aligned*** = N.

- Nodes are added at Ocean boundaries whenever ocean polygons overlap or a ferry crosses an Ocean polygon.

  Note: Nodes are added in all cases, also when the Ocean or ferry from an 'opposing' country is crossing.

- As a guideline, the ocean polygon extends 200 kilometres out from the land to create a sensible display.
- The ocean polygons are full formation around all islands.
- Ferry routes are extended to the midpoint of the ocean polygon overlap between the two countries. The ferries are edgematched and set to ***Aligned*** = Y.
- To improve map display of the country boundary in Italy, large bays are represented with the ***Feature Type*** = 0500116 (Ocean). For example Golfo di Taranto in the South of Italy.

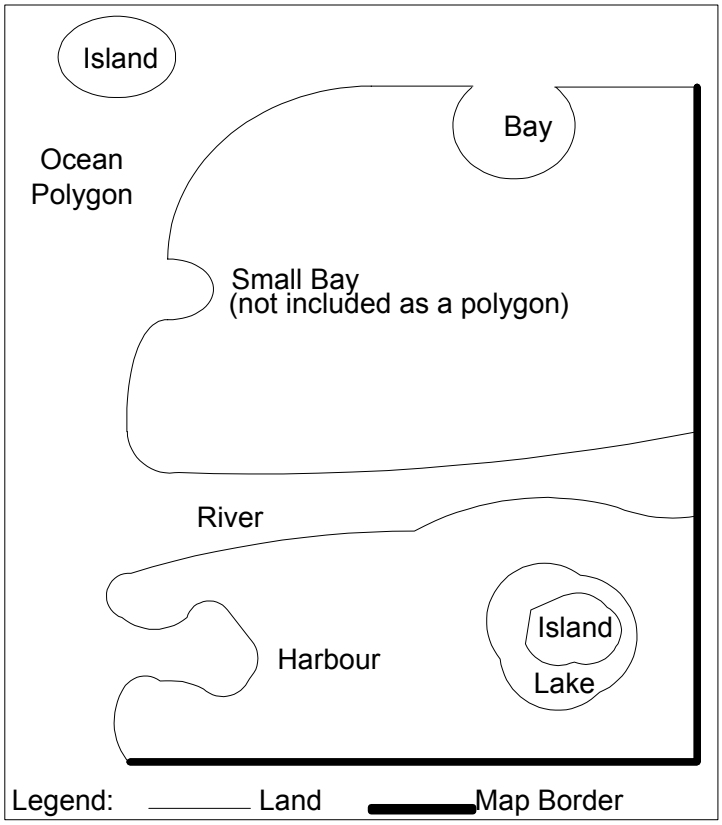


Figure 2-38

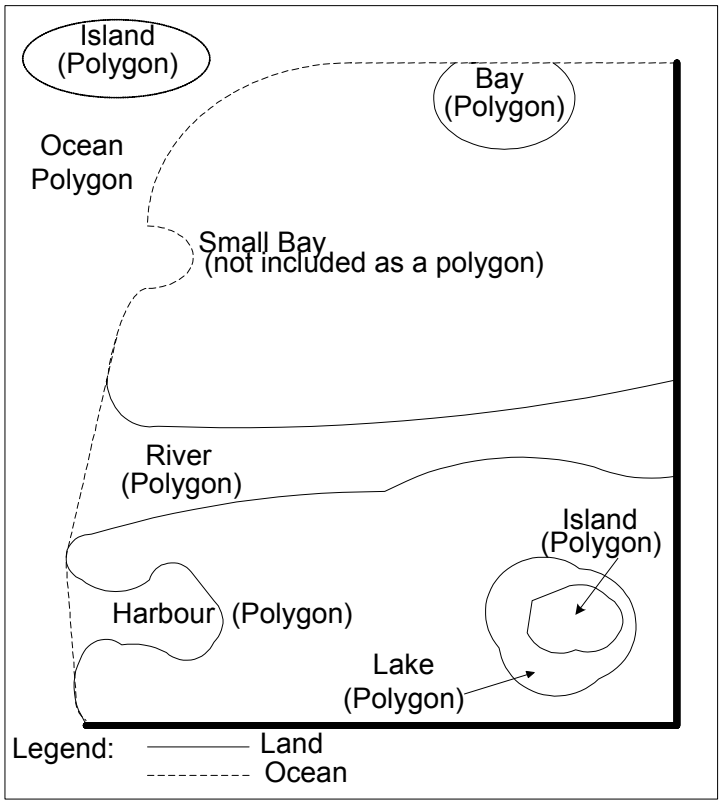


Figure 2-39

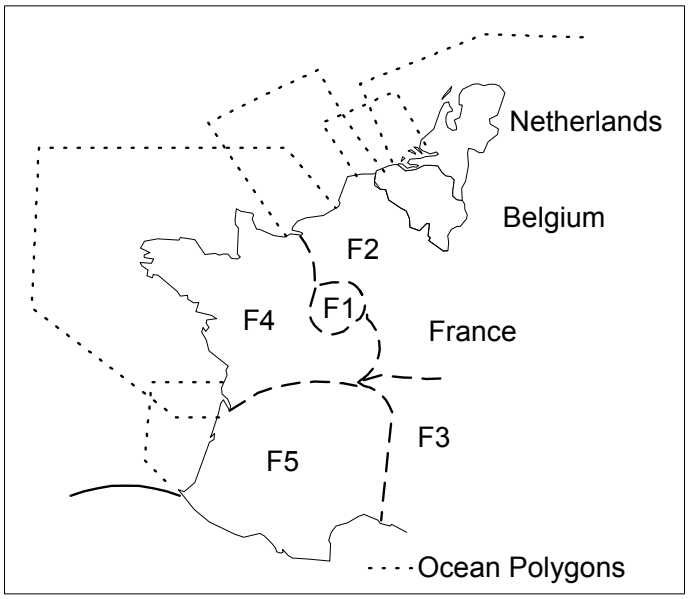


Figure 2-40

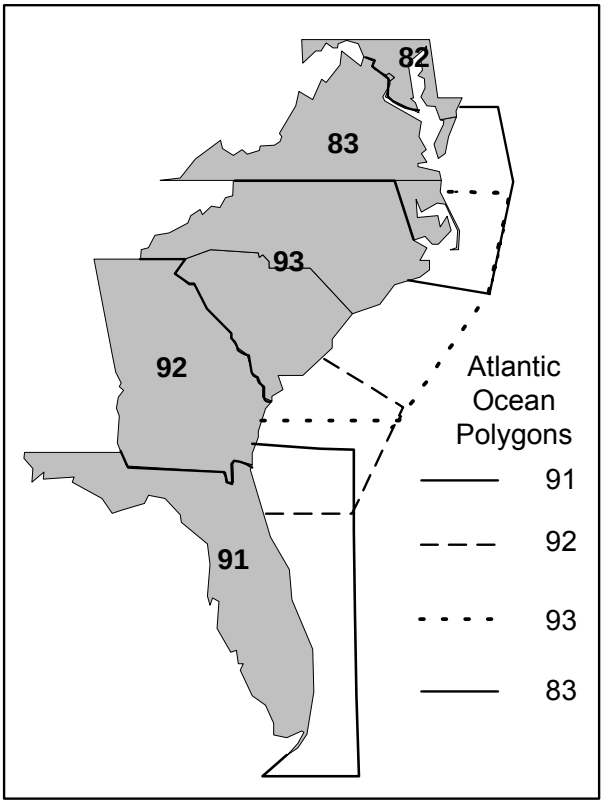


Figure 2-41

2.7.10 Rivers

Rivers are digitised as centerline when they meet the linear inclusion rules. Rivers may become wide enough in places to be represented as polygons. The transition between linear and polygonal representation is digitised at an angle (as a gradual change) and is completed within 25 metres/ 82 feet of the point where the river's width changes, as shown in *Figure 2-42*. The general trend of the river is digitised as linear or polygonal based on the overall trend of the river. See *Figure 2-43*.

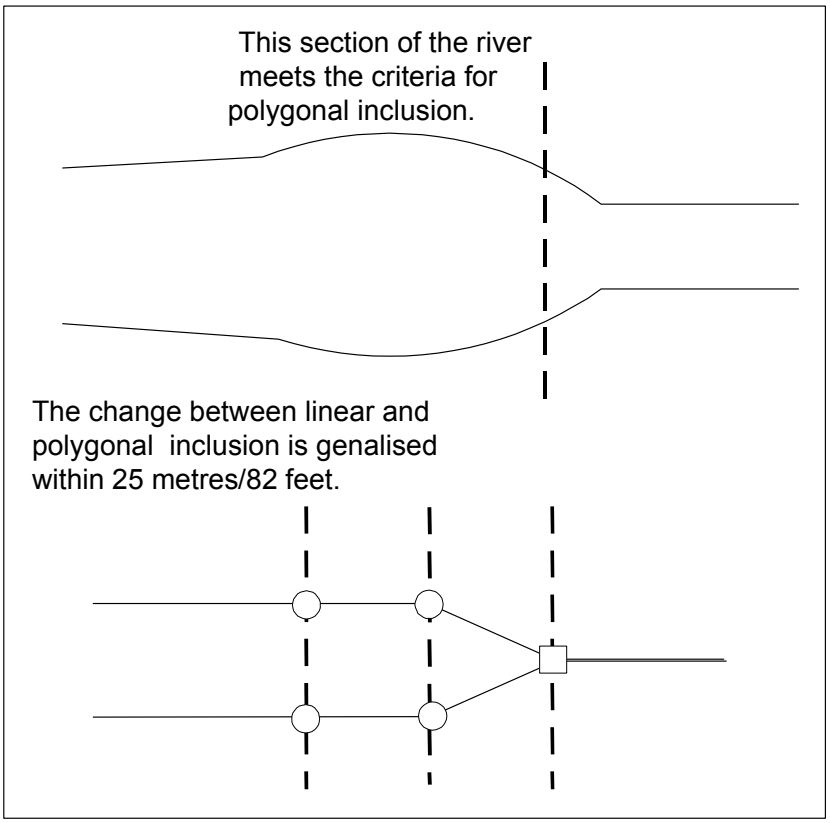


Figure 2-42

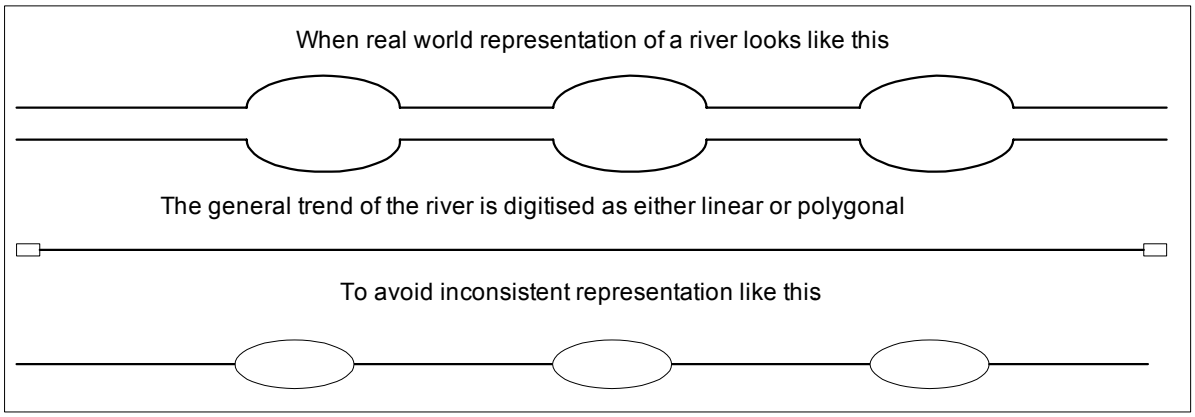


Figure 2-43

2.7.11 Beach Polygons

Beach Polygons (***Feature Type*** = 0509998) represent the following:

- All sandy areas along ocean coastlines as well as any connecting bay/harbours.

- All sandy areas along the shores of Long Haul Lakes.

General Guidelines:

- All polygons are unnamed.
- All beaches are included regardless whether they are public or private.

Note: This feature is intended for map display only and no corresponding POI is added.

2.7.12 Parks

2.7.12.1 Park in Water

Park in Water polygons (***Feature Type*** = 900140) represent National, State, County or City park boundaries that encompass whole or partial water features. See *Figure 2-44* for example of Everglades National Park.

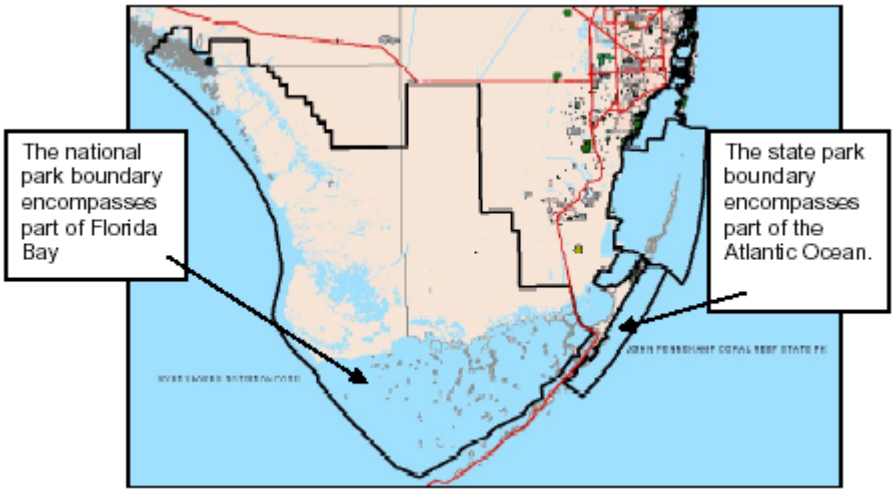


Figure 2-44

Park in Water polygons may exist without a corresponding park on land polygon. This occurs when a park consists of water only.

The size inclusion for the park polygon is the total size of both the park on land and the park in water polygons.

General Guidelines

- When a park is partly in water and partly on land, two separate polygons are included; one polygon representing the park on land (***Feature Type*** = 0900103, 0900130, or 0900150), and

one polygon representing the ***Park in Water*** (***Feature Type*** = 0900140). The ***Feature Names*** of the park on land and the park in water are the same in these cases.

Note: ***Park in Water*** polygons are applied to water features when the water feature is fully contained within a park on land boundary. For example, Yellowstone Lake in Yellowstone National Park does not have a ***Park in Water*** polygon.

- Ocean polygons are not full formation around ***Park in Water*** polygons. However, ***Park in Water*** polygons are full formation around all islands within the ***Park in Water*** polygon.
- ***Z-levels*** are applied when a ferry crosses the ***Park in Water*** boundary.
- ***Park in Water*** polygons do not overlap. In cases where a ***Park in Water*** polygon is split between two regions, the ***Park in Water*** boundary in one region is edge matched to the ***Park in Water*** polygon in the other region.
- The name of the ***Park in Water*** polygon matches the name of the park on land if they are representing the same park.

2.7.13 Railroads and Railroad Yards

Railroad tracks are digitised as centrelines. Railroad yards are generalised to include the main track in and out of the railroad yard and approximately every third track in the yard. If more than one main line track runs outside of a railroad yard, the centreline of the track bed is digitised.

2.7.14 Cartographic Features at the Detailed City Edge

During database creation, a polygonal feature such as a city, lake, or park may not be fully contained in the Detailed City scope. In these situations, the polygon is completed across the Detailed City boundary, as shown in *Figure 2-45*. All links added on the Inter-Town side are coded ***Detailed City*** = Y. Polygonal rivers may become linear when crossing from Detailed City to Inter-Town due to representation rules.

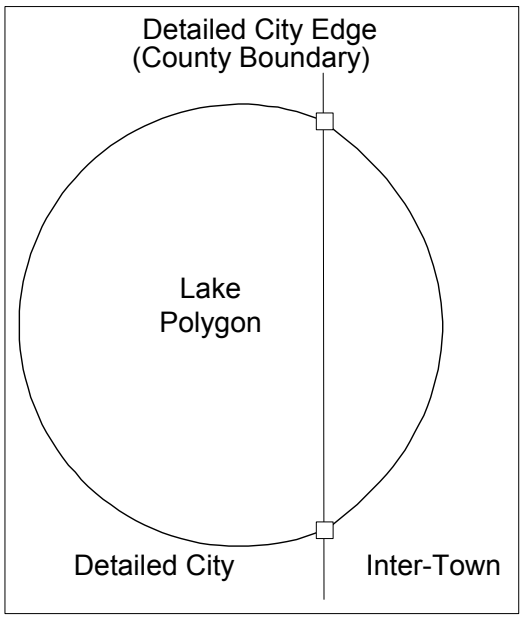

Detailed City Edge
(County Boundary)
Lake
Polygon
Detailed City
Inter-Town

Figure 2-45

2.8 Matching Links and Nodes between Databases

The following rules apply to geographically matching links and nodes between databases:

2.8.1 Geometry

- All nodes and shape points along a coincident link match so there is an equal number of links and sub-links between databases. ***Aligned*** applies to all nodes and shape points that have been matched between touching databases. Nodes only match to other nodes and shape points only match to other shape points. While the links, nodes, and shape points are duplicated between touching databases, the features represented are not duplicated. Only ocean polygons may overlap between databases. ***Aligned*** is not set where ocean polygons overlap or when an ocean is coincident with another countries land mass (distance between 2 countries <200 kilometres).
- ***Z-Level*** coding is consistent across database boundaries to ensure connectivity when databases are merged within the same quarter.
- The nodes and shape points of the ocean links are not set to ***Aligned***, but they match the shoreline and islands exactly. ***Aligned*** applies to the nodes and shape points of the adjacent databases as if the ocean were not present. See *Figure 2-46*.

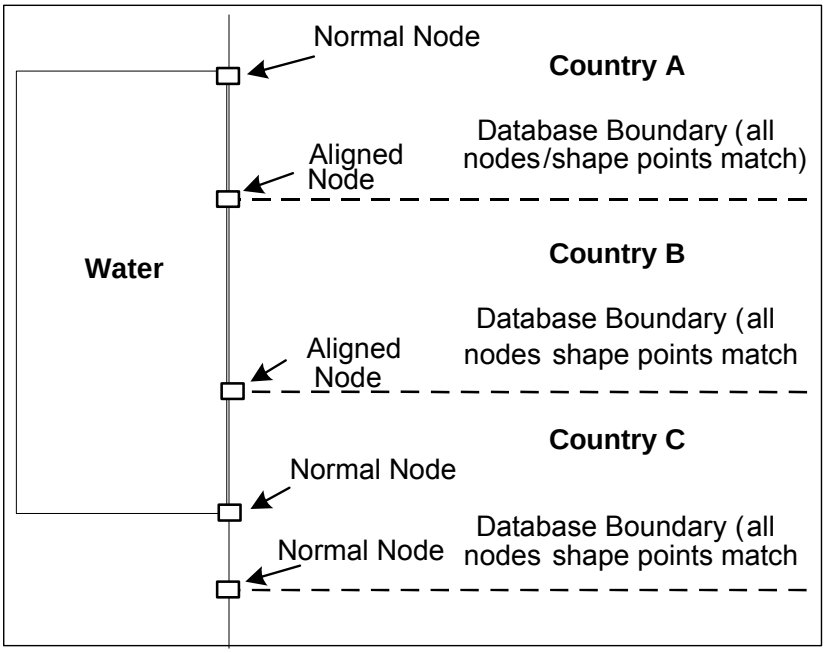


Figure 2-46

- ***Aligned*** is used where ferries intersect between neighboring databases. In order to avoid overlapping ferry routes in ocean polygon overlap areas, the ferry routes, in most cases, should not terminate at the perimeter of the ocean polygon. The ferry routes meet at a logical midpoint of the overlapping ocean area, as shown in *Figure 2-47* below.

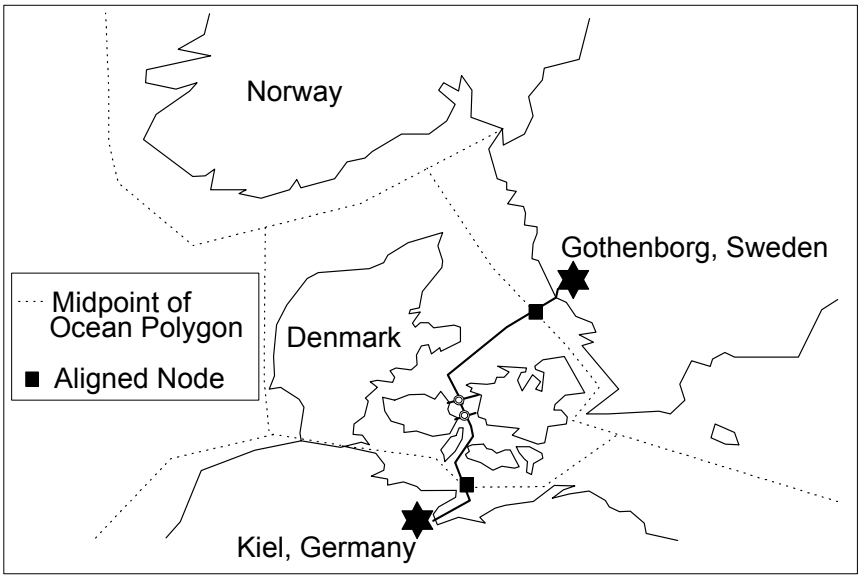


Figure 2-47

2.8.2 Linear Features

- Road features coincident with a database boundary do not exist in both databases. However, the link exists in both databases. One database is picked at random for representing the road feature. In *Figure 2-49*, Road A runs partly on the border in both databases. That part of the road is only represented in Database 1.
- The only linear features duplicated between databases are administrative boundaries. For example, in reality there is one administrative boundary between the states of California and Oregon but these states are in 2 different databases. The boundary link exists in both databases but the administrative features are split respectively: "California" and "Siskiyou" are included as the administrative features on the boundary for Database 1 containing California, and the features "Oregon" and "Jackson" are only included in Database 2 containing Oregon.
- A road and a country feature cannot coincide with each other. The link is digitised separately from the country boundary. See *Figure 2-48*.

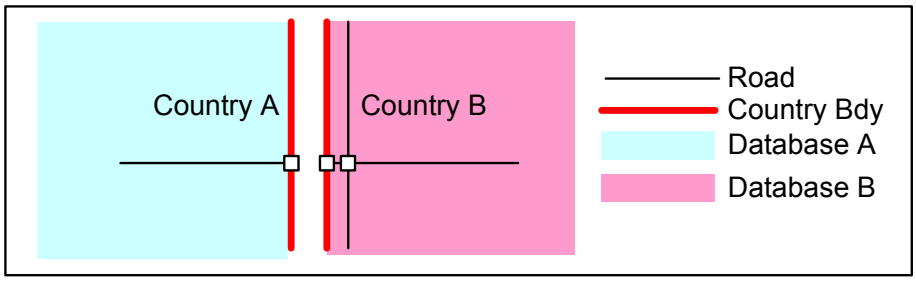


Figure 2-48

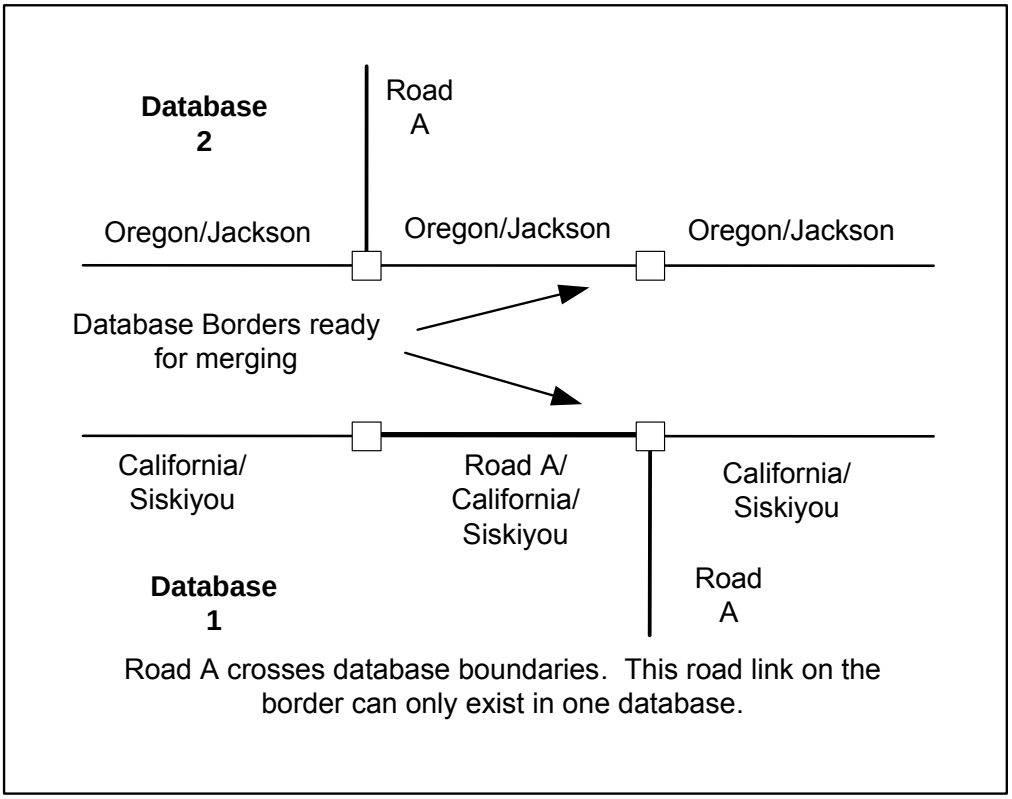


Figure 2-49

2.8.3 Polygons

- If a polygon crosses database borders then two separate polygons exist, one in each database.
- If a database boundary is defined by an administrative boundary that runs down the middle of a river polygon, then the river is split, one polygon in each database, for example, the Rhine River between France and Germany.

2.8.4 Administrative Area Coding

- In North America and South Africa, on country boundaries, the administrative area information is duplicated on both sides of the boundary. For example, the Canadian database has Canadian administrative levels coded on both sides of the Canada/U.S. boundary, while the U.S. databases would have the U.S. administrative levels coded on both sides for the U.S./Canada boundary. Except for where Point Roberts, WA and the Red Lake Indian Reservation in Minnesota border Canada. These sections of Washington and Minnesota are contained within the Canadian product. For that segment of the U.S./Canadian boundary each side is properly coded (not duplicated). Administrative area coding is not duplicated on database boundaries that are not also country boundaries.

- In Europe, on country boundaries, the appropriate administrative information is applied per side of the boundary when a country is fully contained inside another country. For example, Monaco is fully contained within France. However, when countries border each other (e.g. France and Germany), the administrative area information is duplicated on both sides of the boundary. For the French database, the administrative information on both sides of the border reflects France. If the neighbouring country is not an included country then the administrative information of the included country is also duplicated on both sides. For example, the border between Greece and Turkey is coded as Greece on both sides.
- On non-country database borders the appropriate administrative coding is applied to each side. This means that even in the Oregon database, there is coding for California that represent administrative areas on the border. However, there is no any corresponding polygonal or linear features (as explained above) for these features.

2.8.5 Other

- Other attributes such as Feature Name, Direction of Travel, Access Characteristics, etc., are consistent across databases.

(This page intentionally left blank)

Installation

(This page intentionally left blank)

3.1 ArcView

3.1.1 Overview

This chapter provides the instructions for installing NAVSTREETS data, coverage area, documentation, and custom symbols in ArcView GIS 3.2.

Note that the colour display setup on your system should be set to 24 bit RGB colour to ensure that your system will display the data (boundaries, highways, etc.), using the NAVTEQ database's preset standard colours (the technical descriptions in Chapter 3 list the standard colours for each layer).

3.1.2 Installation Procedure

The product has been shipped as a GZipped collection of Shape files, using standard NAVSTREETS design.

The delivery mode for NAVSTREETS ArcView is a GZipped TAR archive with the following content:

- Map layers (Shape), with corresponding index and attribute files.
- Project file (.APR).
- Separate directory with Icon files.

  Note: The provided Icon files only work with ArcView, and are not ArcGIS compatible.
- Projection File (.PRJ) is generated for each map layer for the NAVSTREETS ArcView product. This eliminates the need to add a projection file for each layer.

3.2 MapInfo

3.2.1 Overview

This chapter provides the instructions for installing NAVSTREETS data, coverage area, documentation, and custom symbols in MapInfo Professional. These instructions assume that you already have MapInfo Professional (version 6 or higher), installed on your system.

Note that the colour display setup on your system should be set to 24 bit RGB colour to ensure that your system will display the data (boundaries, highways, etc.), using the NAVTEQ database's preset standard colours (the technical descriptions in Chapter 3 list the standard colours for each layer).

3.2.2 Installation Procedure

The product has been shipped as a GZipped collection of Tab files, using standard NAVSTREETS design.

The delivery mode for NAVSTREETS MapInfo is a GZipped TAR archive with the following content:

- Map layers (Tab), with corresponding index and attribute files.
- Workspace files (.WOR).
- Separate directory with Icon files.

3.3 Oracle

3.3.1 System Requirements

Before installing the NAVSTREETS Oracle Spatial Object Model Data, confirm that the computer and database environments meet the minimum requirements.

3.3.2 Install Environment

The NAVSTREETS installer can run directly on the database server or on any machine having SQL*NET connectivity to the database server. The installation requires Java runtime version 1.2 (must be installed on system where InstallShield is launched). Java runtime version 1.2 is available free of charge on the Internet.

The installer is supported on the following operating systems:

- Windows NT 4.0
- Windows 2000
- Windows 98
- Unix (Sun Solaris, AIX 4.33)

3.3.3 Database Server

The supported operating systems for the database server include:

- Windows NT 4.0
- Windows 2000
- Windows 98
- Unix (Sun Solaris, AIX 4.33)

3.3.4 Oracle Spatial Database

The Oracle database requirements include:

- Oracle Enterprise Edition (version 9.0.1 or 9.2), with Spatial package.
- Multi-language support for Oracle includes: ISO8858-1.

  Note: NAVTEQ data does not support Eastern European Languages.
- SQL*Loader.

3.3.5 Installation Options

The data can be installed on your machine using two methods: (using the InstallShield package on the CD).

3.3.5.1 “Typical"

Automated data loading occurs using a default pre-defined environment. User is prompted to enter basic Oracle parameters prior to data loading. This option does not allow changes to the Oracle schema names nor to the space allocations of the structures.

- Database connectivity

  In addition to the Oracle userid/password, the user will be required to enter the following information:

  - Database

    This will be the instance name defined in the tnsnames.ora file.

  - Host

    The address of the server that will be updating the database.

  - Service Name

    The current NET8 Service Name of your database. If you are installing the database locally, you can use the default "LOCAL" option of this field.

  - Tablespace Directory

    Directory path where the tablespaces will be created. If they already have been created; this is not required.

    Note: During the installation process on NT you will be unable to browse the tablespace directory outside of your client. You must be connected before selecting the tablespace.

- The user has the following options for the database install:

  If tables already exist, the user will have the following options:

  - **Append** - Append tables to currently existing tables.

    Note: It is **STRONGLY** recommended to drop all indexes before performing an append. There are two reasons for this. The first is that the append operations will be much slower for a table that is already indexed. The Second reason is that the indexes created does not take into account an append, and it may be more optimal to set new index values.

  - **Delete** - Remove existing NAVSTREETS Tables and Tablespaces.

The user will also have the following options:

- **Index Tables** - Perform default indexing on NAVSTREETS Tables.
- **Do not Index** - Perform no indexing on NAVSTREETS Tables.

3.3.5.2 “Custom"

An automated installation unloads scripts and data. The user can select the following options to be installed:

- Symbols (ArcView and MapInfo)
- Documentation
- Tables and Control Files
- Install and Indexing Scripts

The user can manually modify scripts to customize them to a specific environment (space extents, tablespace names). The modified scripts can then be run manually to load data.

Note: Tables delivered with polygon geometries will have to run the Oracle procedure "sdo_migrate.to_current(<table name>>)" on each of these tables to have Oracle accept them as valid spatial tables.

Note: When using the custom installation process of NAVTEQ's NavStreets for Oracle 9i (North American products) please check the readme file shipped with the product.

3.3.6 Uninstall Options

There are a few different methods for removing the product from the system.

- Any disk files that were installed can be removed by going to the uninstall directory for the installed product. A ready-to-use uninstall application will have the process to remove unwanted files.
- Any created database tables and tablespaces can be removed by:
  - Running the installation script again.
  - Using provided SQL scripts to drop tables and tablespaces.

3.3.7 Pre-Installation Checklist

A pre-installation checklist is provided to prepare the Oracle environment for installation of the NAVSTREETS data in a "Typical" install.

Note: A Custom install will not interact with Oracle and just unload the data, control files and scripts that can be used to install the data to Oracle.

Requirements for Installation of Oracle Data:

- Java runtime version 1.2 or later (must be installed on system where InstallShield is launched)
- Oracle Enterprise Edition 9.0.1 Server (local or remote)
- Oracle Client
- Oracle user with defined permissions:

  ALTER DATABASE

  CREATE ANY INDEX

  CREATE SESSION

  CREATE TABLE

  CREATE TABLESPACE

  DROP ANY INDEX

  DROP ANY TABLE

  DROP TABLESPACE

  INSERT ANY TABLE

  SELECT ANY TABLE

  UNLIMITED TABLESPACE

  UPDATE ANY TABLE
- SQL*Loader
- Database to Load Data: (May increase for larger than average datasets)

  Recommended:

  - Character set = IS8858-1 (default).
  - Rollback Space(RBS.DBF) = 500MB (default).
  - Temporary Space (TEMP.DBF) = 500MB
  - Index Space (INDX.DBF) = 60K (Default)
  - System Space (SYSTEM.DBF) = 1GB
- NAVSTREET TableSpaces:

  NAVSTREET_DATA.ORA and NAVSTREET_INDEX.ORA will be automatically created for the user. Since each dataset can be a different size, these files will vary in size. On average, the recommended disk space required for a coverage area will be as follows.

  - NAVSTREET_DATA.ORA = ~1GB
  - NAVSTREET_INDEX.ORA = ~1GB.

Another way to estimate the size of these tablespaces is to take the size of the installation package (setup.jar) on the CD and multiply by 25. For example, if the setup.jar is 80MB, the size needed for each tablespace would be approximately 2GB.

3.3.8 Database Optimization

The default values that are used to create tables and indexes for the NAVSTREETS products have been calculated by using averages of dataset sizes. Since datasets can vary significantly from product to product, the tablespaces for the data and indexes might not be the most efficiently optimized for your data. If you are having performance issues you may want to consider using a custom install and use provided SQL scripts to customize the table creation and indexing of the data.

3.3.9 Oracle Indexing & Constraints

SQL Scripts have been provided for data loading and table adjustment.

Types of index scripts include:

- Spatial (R Tree) indexes on all tables with spatial properties (when querying a spatial object an associated spatial index is required).
- B-Tree indexes for all tables that have attribute Link IDs.
- Bitmap Indexes on attribute Feature Type in LandUseA and LandUseB.
- Bitmap Indexes on attribute Feature Type in WaterWys.
- Bitmap Indexes on attribute Facility Type on all POIs.

B-Tree Indexing provides faster access to fields with unique values. Bitmap Indexing provides faster access to fields with a small range of values. Please refer to Oracle 9.0.1 documentation for more information on indexing.

Please refer to the table definitions below to see which tables have indexing provided.

Some constraints have been added to certain fields of certain tables. The table definitions in this document describe the applicable constraints.

3.3.10 Installation Instructions

3.3.10.1 Typical Installation

1. Before installing, you must have Java 1.2 Runtime or later and Oracle 9.0.1 Client installed. Please see the Oracle Product Guide for more details.

For Windows Installs:

Double click on **setup.jar icon**.

From the command line, type:

java -jar <drive:>/setup.jar

For AIX Installs:

From the command line, type:

java -jar -Dtemp.dir=<temporary directory> drive:\setup.jar*

Note: You must be user ROOT to install the product if you are using Oracle 9.0.1.

For Sun Installs:

From the command line, type:

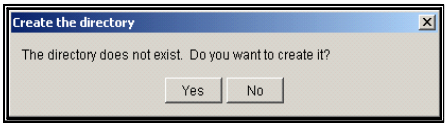
java -jar <path>/setup.jar

Once you have entered the applicable command line, the system displays the Welcome screen.

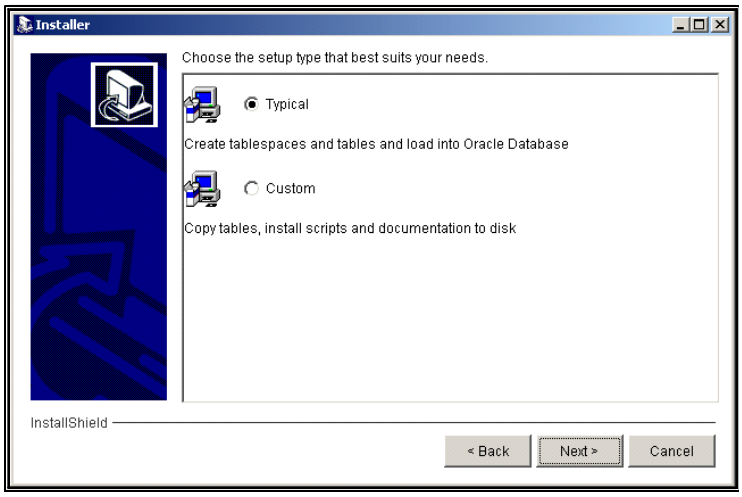
2. Click on **Next** to proceed to the Destination Location screen.

3. Choose the destination directory for your NAVSTREETS data either by accepting the **default location** or clicking the **Browse** button and specifying your **preferred destination directory**.

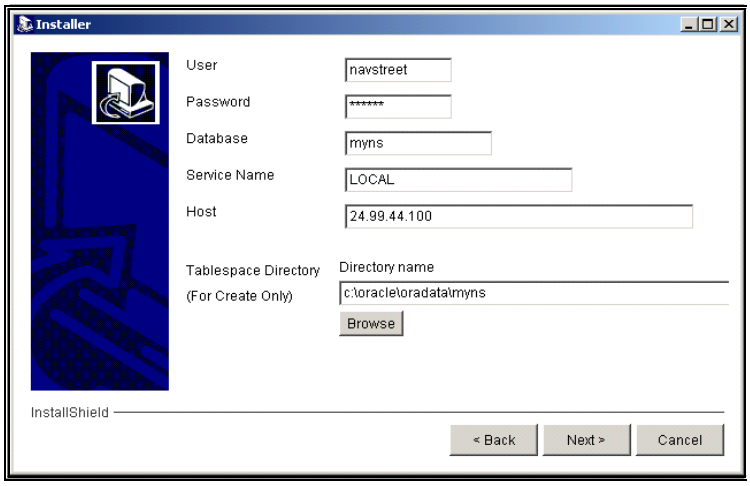
4. If you are installing a new release in the default location, the following message will appear after choosing **Next** on the previous screen.



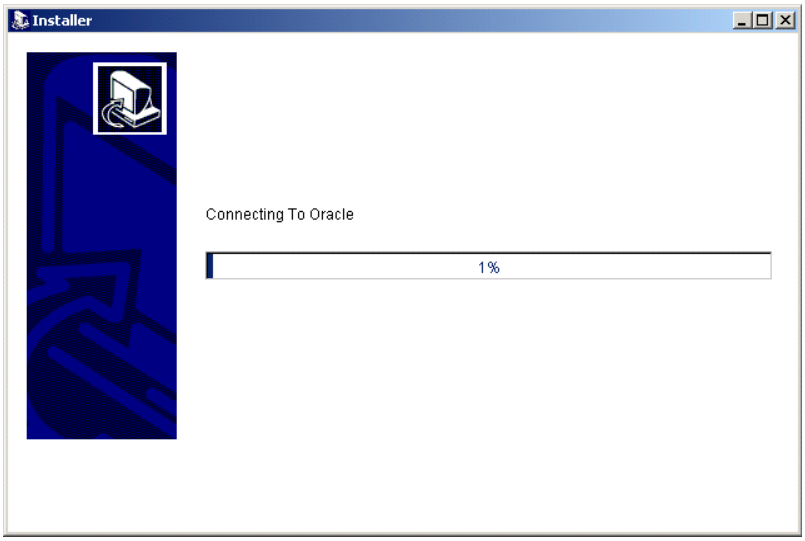
5. If you select **No**, the system returns you to the Directory Location screen. If you choose **Yes**, the Systems moves to the Setup Type screen.



6. Select **Typical Install** and click on **Next** to proceed to the Login screen.



7. Fill in **User Name**, **Password**, **Database Instance** (SID), **Service Name** (if not running server on local machine, enter the **Host ID** of the Oracle server. If the install is a new install, specify the locations of the tablespaces that will be created for this database install. If an this is an append, this field is not required. Click on **Next** and the system will provide a series of Status screens to indicate the installation's progress.



8. If a previous install of the database exists, you will be asked if the tables should be appended or deleted. Choosing the **Append** option will return back to status bar continuing database install operations. Choosing **Delete** will return back to status bar displaying delete operations.

9. You will be asked if you wish to index the tables. If you select **Yes**, indexing (as described in the Product Guide) will be applied to the tables. If you select **No**, then the table will not be indexed. Click on **OK** to proceed with the installation process.

10. Once the database has been installed, the system will also install the Symbols, Documentation, and Install and Indexing Scripts files to the selected directory. Click on **Next** to install these files and complete the installation.

11. The installation is now complete. Click on **Finish** to exit the install application.

3.0.0.1 Custom Installation

1. Before installing, you must have Java 1.2 Runtime or later and Oracle 9.0.1 Client installed. Please see the Oracle Product Guide for more details.

For Windows Installs:

Double click on **setup.jar icon**.

From the command line, type:

java -jar <drive:>/setup.jar

For AIX Installs:

From the command line, type:

java -jar -Dtemp.dir=<temporary directory> drive:\setup.jar*

Note: You must be user ROOT to install the product if you are using Oracle 9.0.1.

For Sun Installs:

From the command line, type:

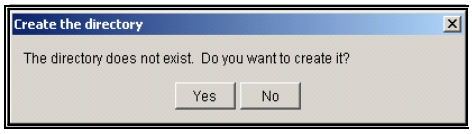
java -jar <path>/setup.jar

Once you have entered the applicable command line, the system displays the Welcome screen.

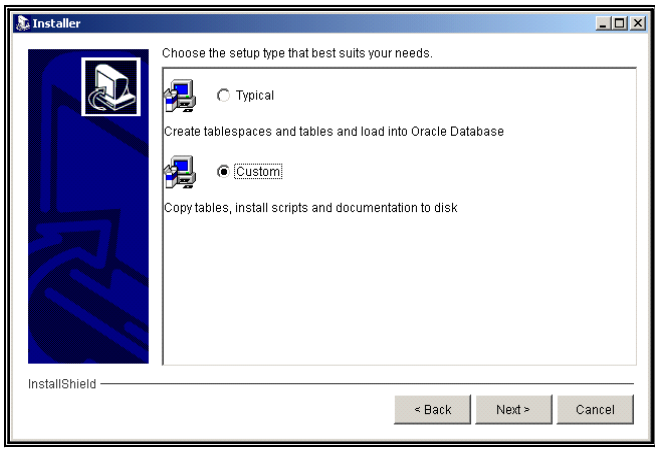
2. Click on **Next** to proceed to the Destination Location screen.

3. Choose the destination directory for your NAVSTREETS data either by accepting the **default location** or clicking the **Browse** button and specifying your **preferred destination directory**.

4. If you are installing a new release in the default location, the following message will appear after choosing **Next** on the previous screen.



5. If you select **No**, the system returns you to the Directory Location screen. If you choose **Yes**, the Systems moves to the Setup Type screen.



6. Select **Custom** and click on **Next** to proceed to the Features screen.

7. Select **one or more features** to be installed on directory selected above. Click on **Next** to proceed to Selected Features Summary screen.

8. The Feature Summary screen displays the features you have selected, along with their file sizes and directory destination. Click on **Next** to proceed with the installation and view the ongoing status of the installation.

9. The installation is complete. Click on **Finish** to exit the install application.

NAVSTREETS Layers

(This page intentionally left blank)

4.1 ArcView/MapInfo/Oracle

This section describes the NAVSTREETS layer for ArcView, MapInfo and Oracle.

Note: The creation of NAVSTREETS sometimes calls for the extraction of empty layers. Whereby, even though coverage may not exist for a certain feature type in a given region, the NAVSTREETS product carries an empty layer.

4.1.1 Major Highways

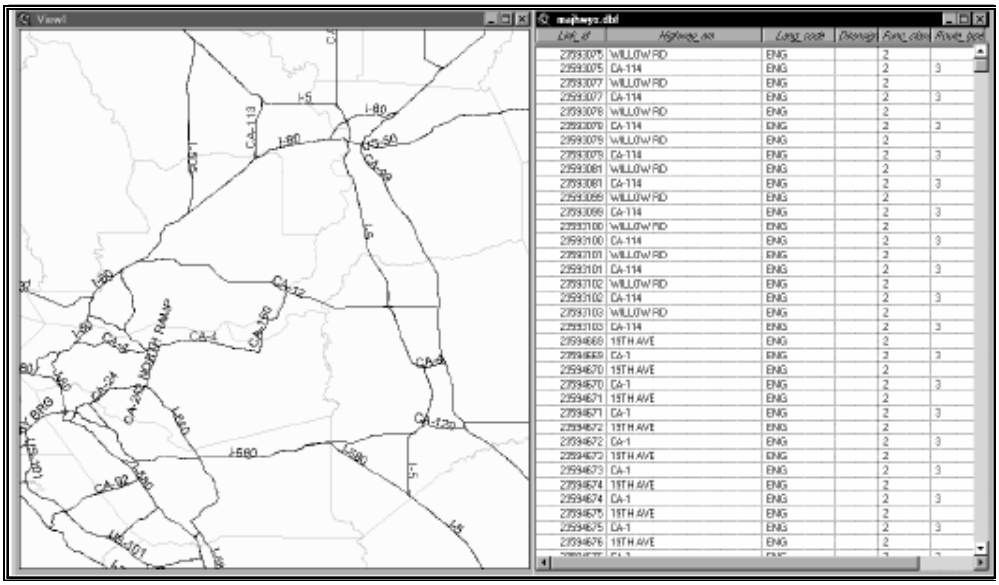
The Major Highways layer contains Road Network features based on the "Functional Class" value on each link present in NAVSTREETS. This layer contains all links that have a Functional Class value of either "Level 1" or "Level 2". The Functional Class of a highway defines the network used to determine a logical and efficient route for a traveller.

Functional Class Level 1 roads are those with very few (if any), speed changes, typically controlled access, and provide high volume, maximum speed movement between and through major metropolitan areas.

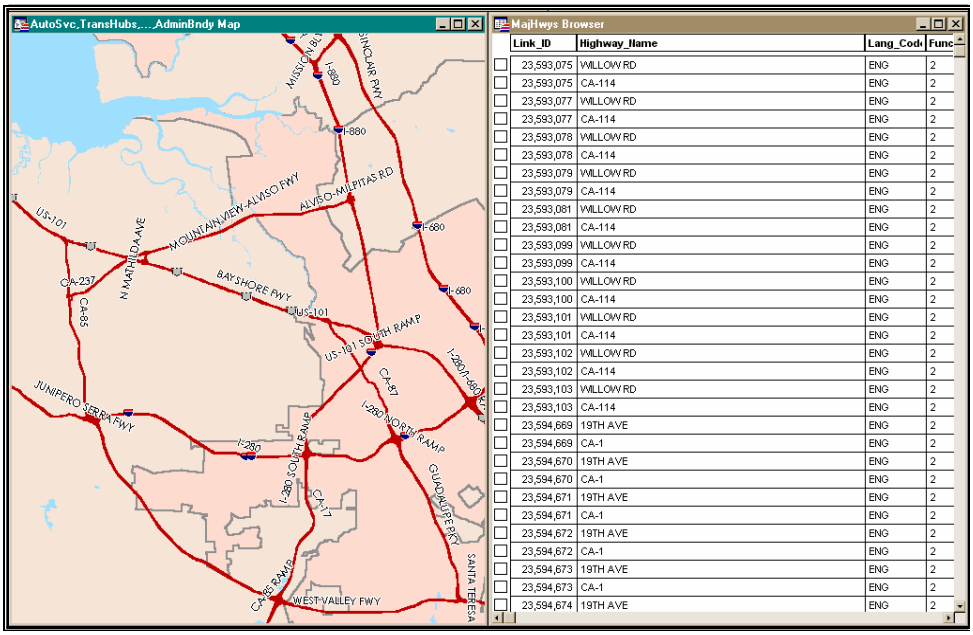
Functional Class Level 2 roads are those with very few (if any), speed changes, and provide high volume, high speed traffic movement. They are typically used to channel traffic to (and from) Level 1 roads.

The Major Highways layer is used for map visualisation:

ArcView



MapInfo



4.1.2 Major Highway Shields

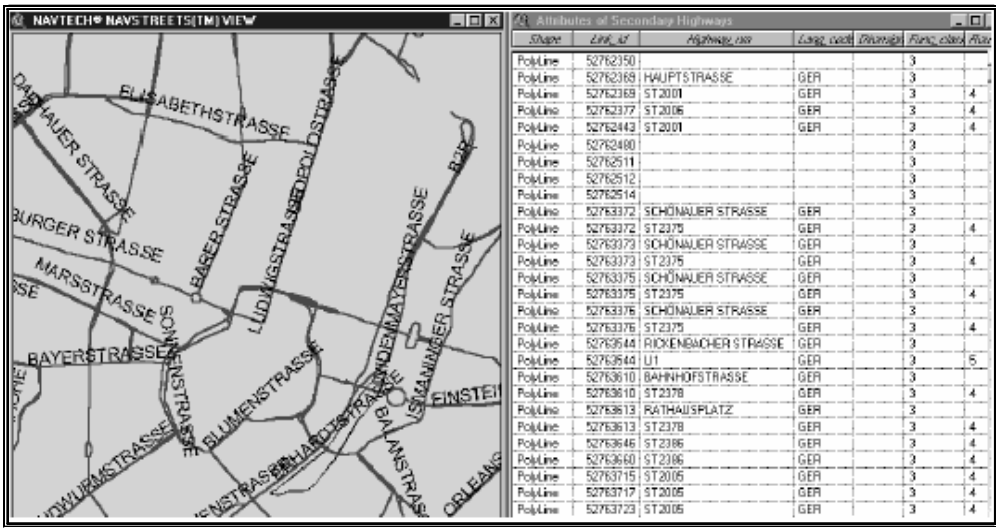
The Major Highway Shields layer contains the shield icons for Major Highways. These shields are used in conjunction with the Major Highways layer to identify the route number and distinguish a major highway from a different type of highway. The Major Highway Shields layer is used for map visualisation. This layer is currently only applicable to North American databases.

4.1.3 Secondary Highways

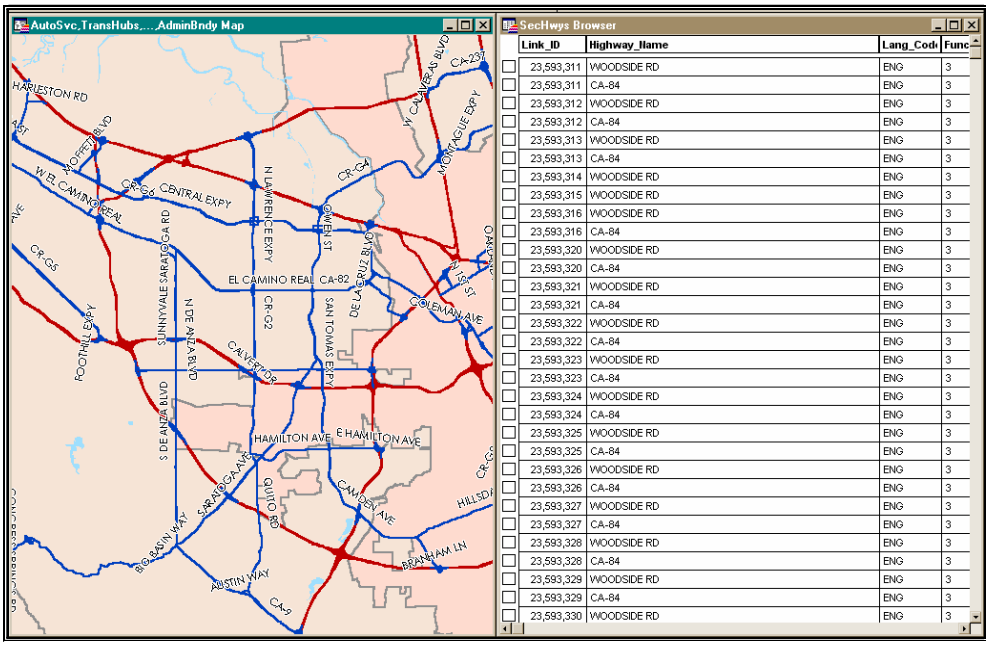
The Secondary Highways layer contains Road Network features based on the "Functional Class" value on each link present in NAVSTREETS. This layer contains all links that have a "Functional Class" value of 'Level 3' and 'Level 4'. Functional Class 3 roads interconnect Level 2 roads and provide a high volume of traffic movement at a lower level of mobility than Level 2 roads. Functional Class 4 roads provide for a high volume of traffic movement at moderate speeds between neighborhoods.

The Secondary Highways layer is used for map visualisation.

ArcView



MapInfo



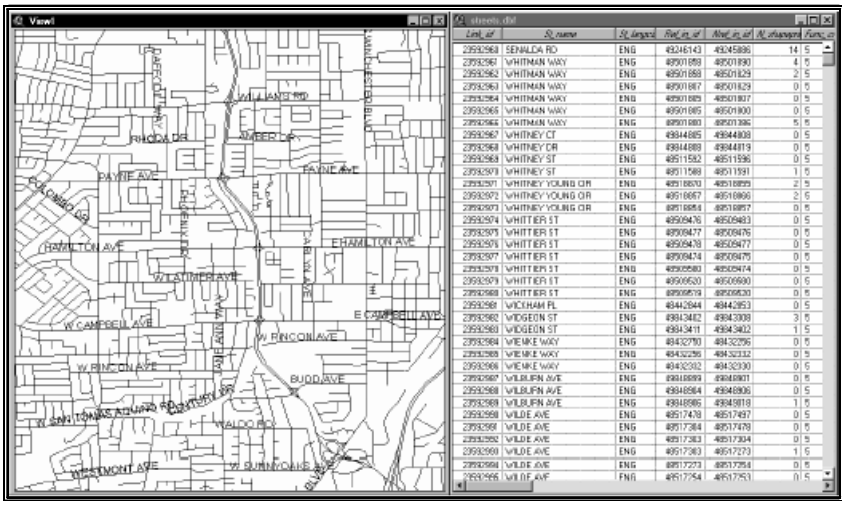
4.1.4 Secondary Highway Shields

The Secondary Highway Shields layer contains the shield icons for Secondary Highways. These shields display above the Secondary Highways layer to identify the route number, and distinguish a secondary highway from a different type of highway. The Secondary Highway Shields layer is used for map visualisation. This layer is currently applicable only to North American databases.

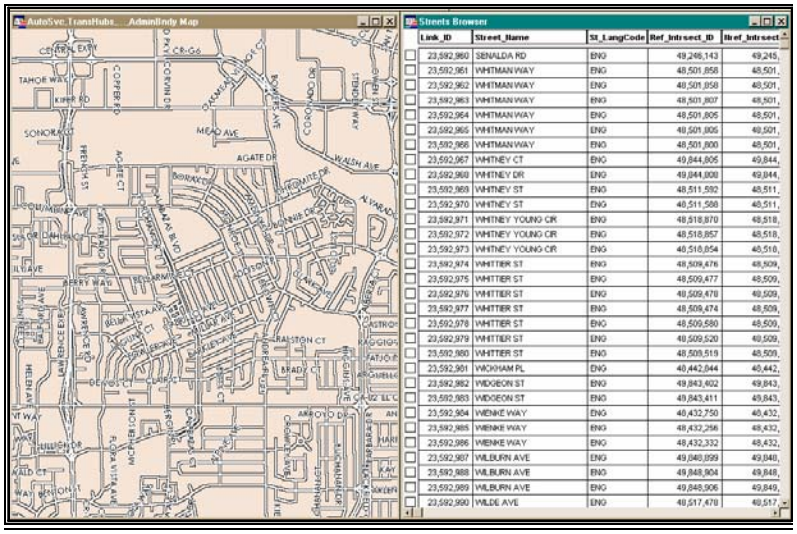
4.1.5 Streets

The Streets layer contains all roads plus all Road Network features such as direction of travel, dividers, speed category, and access restrictions. This layer is suitable for routing applications, as it represents the complete navigable road network. For intersection-driven routing applications, the Z Levels layer can also be used to establish roadway connectivity. This layer contains address ranges for all addressable lines and polylines in the Streets layer, and is used primarily for geocoding. NAVSTREETS provides Addresses for each end and each side of a line or polyline. "From" addresses correspond to the "Reference" end of the line or polyline, and "To" addresses correspond to the "Non-Reference" end of the line or polyline.

ArcView



MapInfo



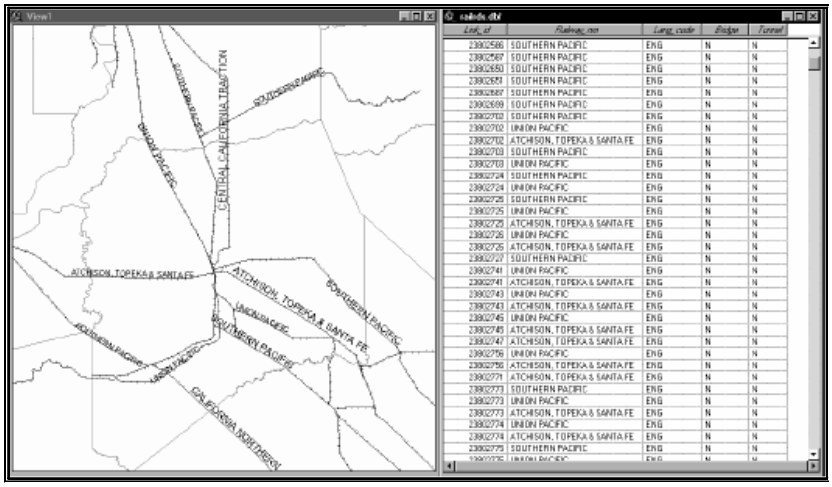
4.1.6 Alternate Street Address

The Alternate Street Address table is to publish alternate road names and address information for Street Links. This table is non-geometrical, and eliminates the duplicate geometry present in the current Streets layer. Some Street Layer entries will have a corresponding Alternate Street Address layer entry.

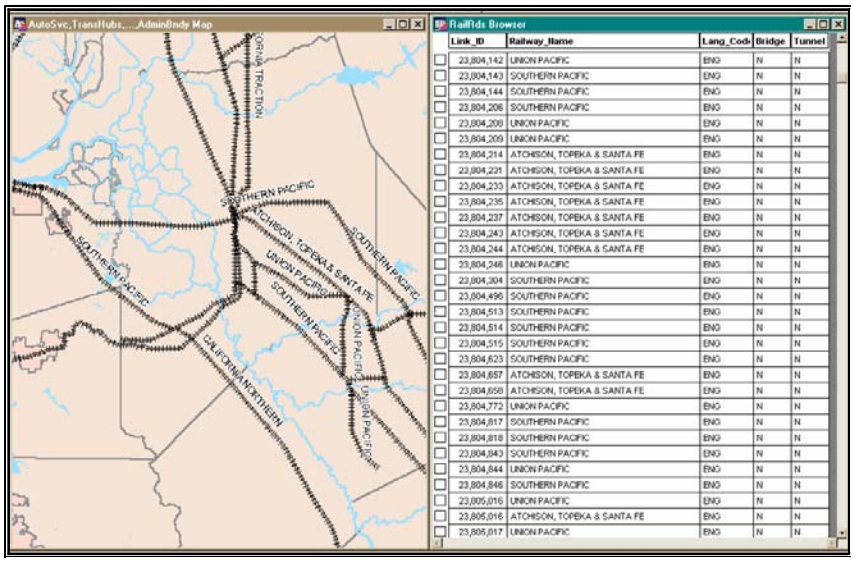
4.1.7 Railroads

The Railroads layer contains Railroad features published as lines and polylines. These include the name of the railroad, and if the railroad goes onto a bridge or through a tunnel. This layer is used primarily for map visualisation.

ArcView



MapInfo



4.1.8 Signs

The Signs layer contains highway entrance and exit signage. This layer is primarily used for route guidance.

4.1.9 Condition/Driving Manoeuvres

The Condition/Driving Manoeuvres layer contains information about different condition types that exist on the source link that prohibit navigation from one navigable line or polyline object (source link) to another (e.g. a restricted driving manoeuvre (no left turn), an access restriction (carpool vehicles only), or a seasonal road closure). This layer is used for route calculation.

4.1.10 Condition/Driving Manoeuvres - Date/Time Modifiers

The Condition/Driving Manoeuvre - Date/Time Modifiers layer contains information about the time period when a Condition/Driving Manoeuvre is in effect. This layer is used for route calculation in conjunction with the Condition/Driving Manoeuvres layer.

4.1.11 Condition Modifiers

The Condition Modifiers layer contains information about the restricted access conditions related to HOV lanes.

4.1.12 Condition Lane Template

The Condition Lane Template layer contains the values of the lane representation for HOV lanes. A row exists in this table only if a lane condition exists. Lane numbering is based on direction of travel with 1 being the innermost lane (left for right-side driving countries such as the US, and right for leftside driving countries such as the UK). Y/N values are only published for the number of actual lanes defined for the specified direction; all other lane columns will be blank.

4.1.13 Condition Lane Traversal

The Condition Lane Traversal layer contains the lane-lane connectivity associated with a Lane Traversal condition. (The Lane Traversal condition is published in the regular Condition/Driving Maneouvres (CDMS) layer. The standard model (RDM/Maneouvre Links, RDMS layer) is used to publish links involved in the Lane Traversal condition.

4.1.14 Restricted Driving Manoeuvres - Manoeuvre Links

The Restricted Driving Manoeuvres - Manoeuvre Links layer contains information about all the manoeuvre links associated with a Restricted Driving Manoeuvre. This layer is essential when working with a Restricted Driving Manoeuvre that includes multiple links (e.g. an access restriction that applies to more than one link when calculating a route). This layer is used for route calculation in conjunction with the Condition/Driving Manoeuvres layer.

4.1.15 Traffic

The Traffic layer contains traffic codes for all navigable links used within NAVSTREETS.

4.1.16 Z-Levels

The Z-Levels layer contains relative vertical positions for all points represented by polylines, lines, points, and regions. Valid values for Z-Levels range from -4 to +5. Points at grade are represented by 0. No inference of actual elevation can be made based on these values. This layer is used for route calculation and vehicle positioning. This layer also assists with the development of routing applications that are intersection driven (intersections that are used in the Streets layer).

Note: Z-Levels are only represented for road segments in NAVSTREETS.

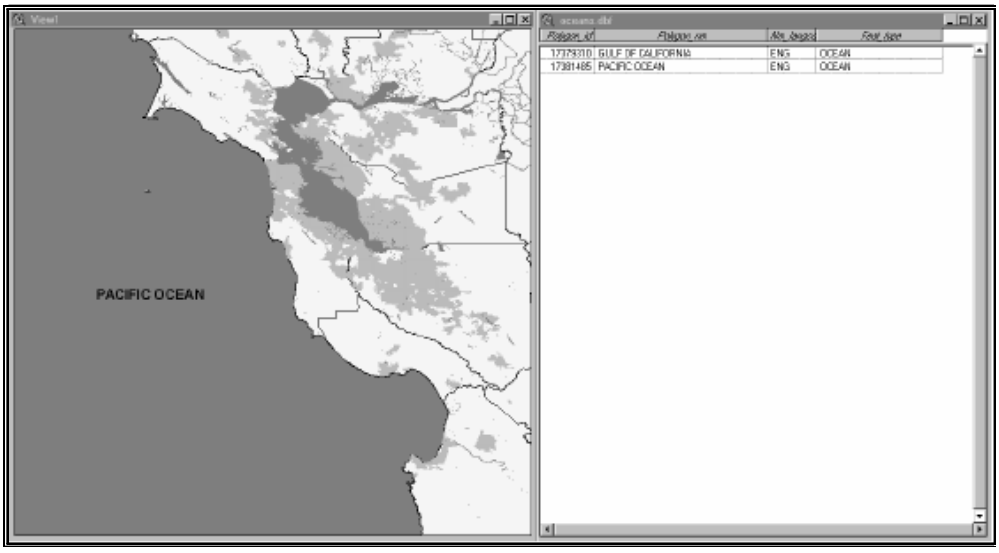
4.1.17 Zones

The Zones layer contains zone information (where applicable), for navigable lines and polylines in the Streets layer. The Zones layer allows users to specify a destination when the administrative coding of a destination link does not reflect its commonly known name. An example of a "Known As" zone would be to geocode to an address in Queens instead of using New York as a city name in address resolution.

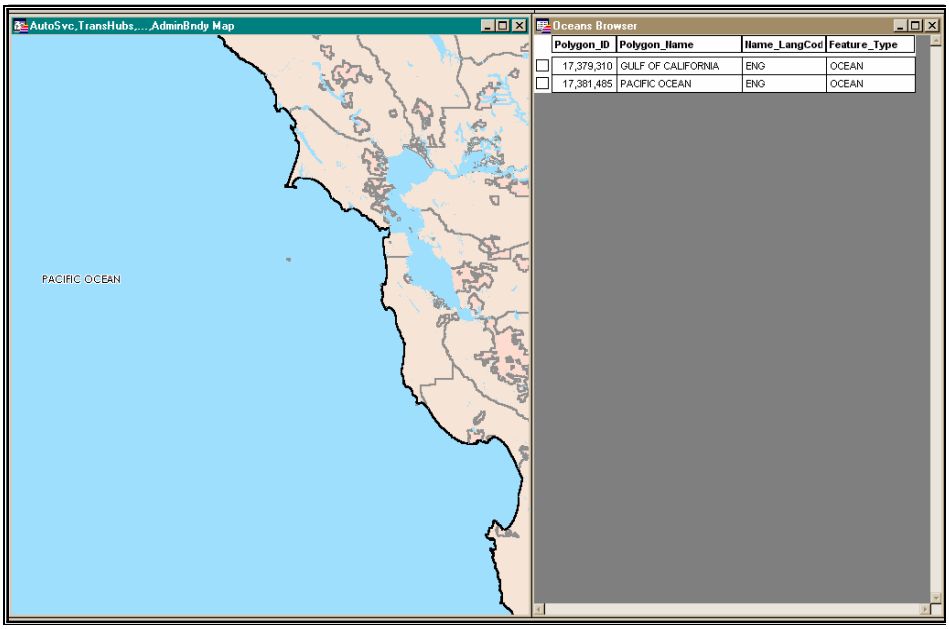
4.1.18 Oceans

The Oceans layer contains all oceans within your NAVSTREETS detailed coverage area. An ocean is represented as a polygonal feature. The oceans layer is used for map visualisation.

ArcView



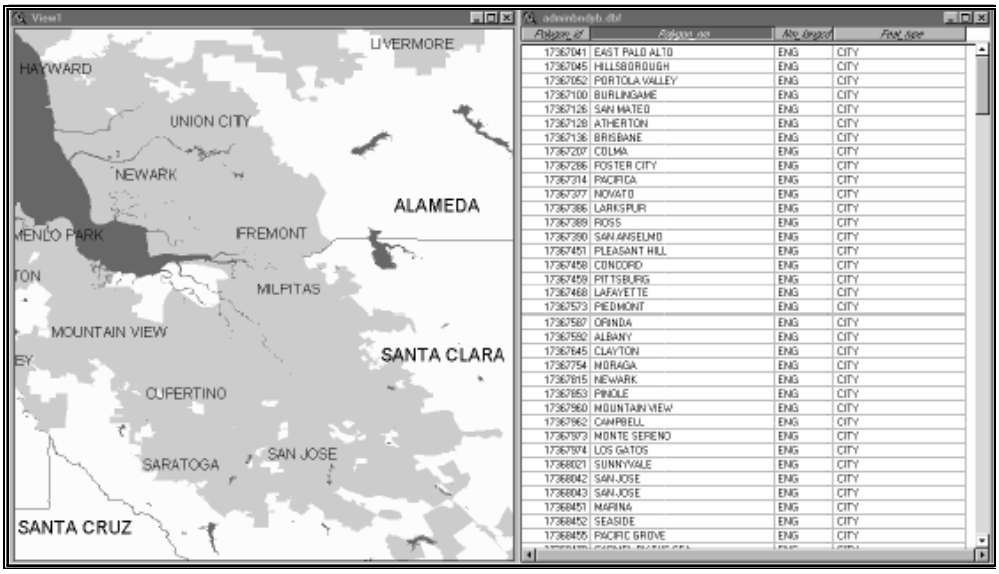
MapInfo



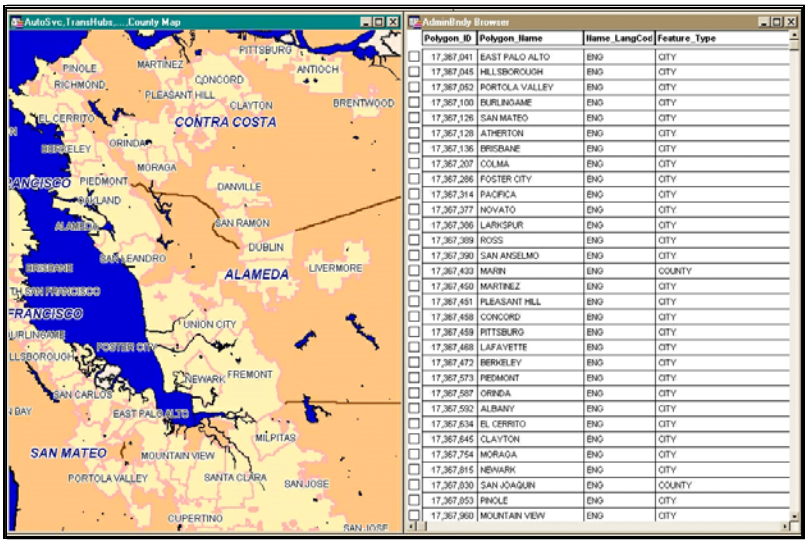
4.1.19 Administrative Area Boundaries (1, 2, 3, 4, 5)

There are five Administrative Area Boundaries layers (1, 2, 3, 4, 5). These layers contain the boundaries that divide countries into administrative areas such as country, state, county, city, or settlement. These designations vary on a country by country basis. (In the US for example, the Administrative Area Boundary 3 layer displays the county boundaries, and Administrative Area Boundary 4 displays the City boundaries.) *See Appendix B* for a list of the administrative area types by country. This layer is used for map visualisation.

ArcView



MapInfo



4.1.20 Administrative Area

The Administrative Area layer contains a list of additional area ids associated with administrative area boundaries within NAVSTREETS.

4.1.21 Cartographic Country

The Cartographic Country layer contains linear features that represent country boundary information. This layer is used for map visualisation.

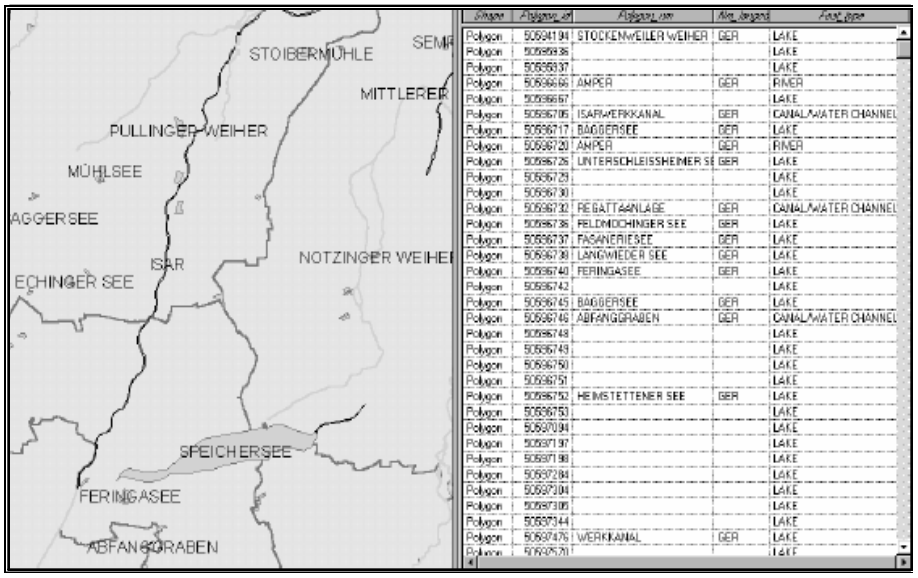
4.1.22 Cartographic State

The Cartographic State layer contains linear features that represent state boundary information. This layer is used for map visualisation.

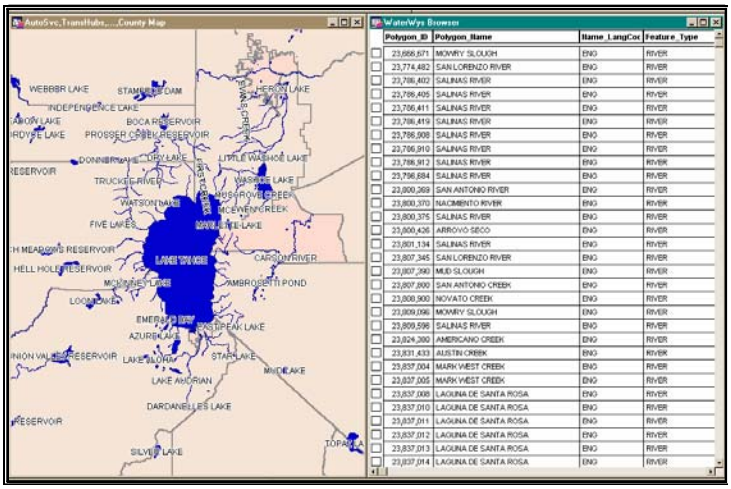
4.1.23 Waterway Polygons, Waterway Segments

The Waterway Polygons and Waterway Segments layers contain polygonal and linear features that represent water features within a NAVSTREETS coverage area. These include Rivers, Water Channels, Lakes, Bays/Harbours, Rivers, Intermittent Rivers and Canals/Water Channels that can be represented as either polygons or linear features, while other water features are typically represented as polygons. These layers are used for map visualisation.

ArcView



Mapinfo



4.1.24 Building/Landmark Features

The Building/Landmark features layer contains polygons that represent various building and landmarks features found within a coverage area. These include Business/Commerce, Convention/Exhibition, Cultural, Education, Emergency, Government, Historical, Medical, Park/ Leisure, Residential, Sports and Transportation.

This layer is used for map visualisation.

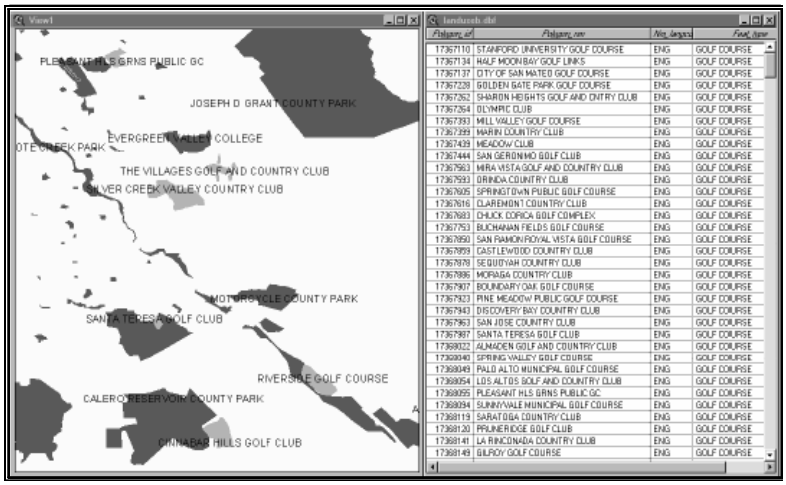
4.1.25 Land Use Features (A, B)

NAVSTREETS provides two Land Use Feature layers. Land Use Features (A) contains polygons that represent various land usage features found within a detailed coverage area. These include Airports, Cemeteries, Hospitals, Industrial Complexes, Military Bases, Parks, Park in Water, National Monuments, Public Use Areas, Shopping Centres, Sports Complexes, Undefined Traffic Areas, University/Colleges, and Woodlands.

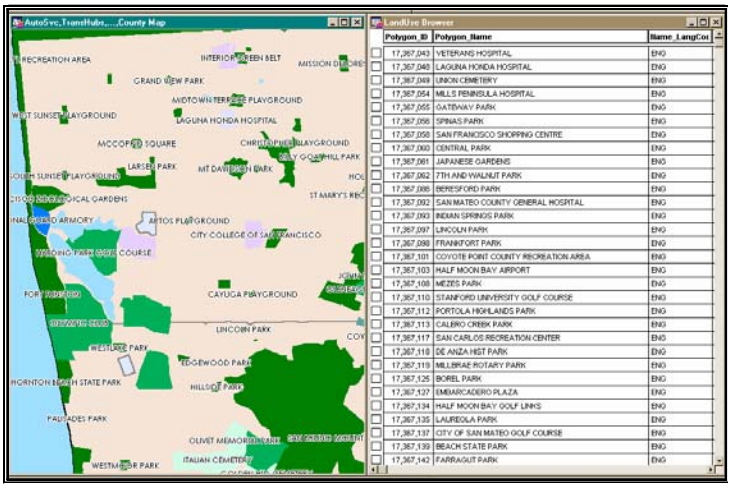
The Land Use Features (B) layer contains features that may be within larger Land Use Features. These include Aircraft Roads, Golf Courses, Native American Reservations, and Pedestrian Zones.

Both layers are used for map visualisation.

ArcView



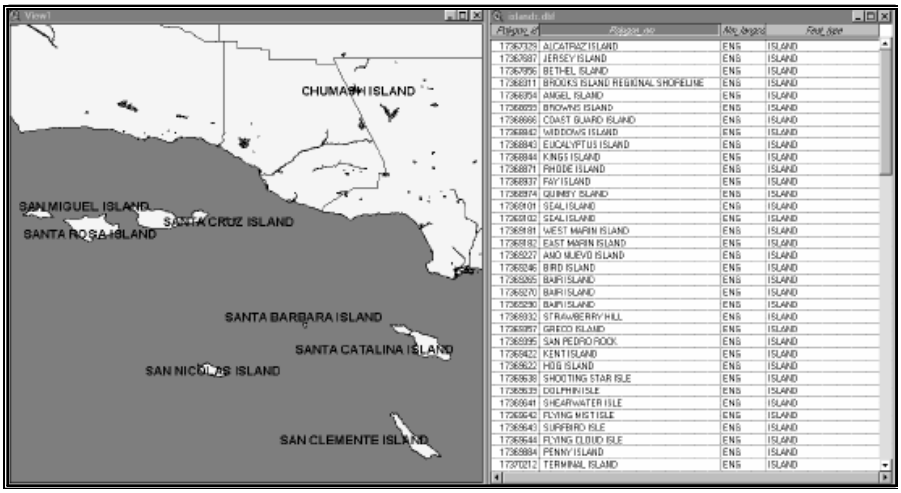
MapInfo



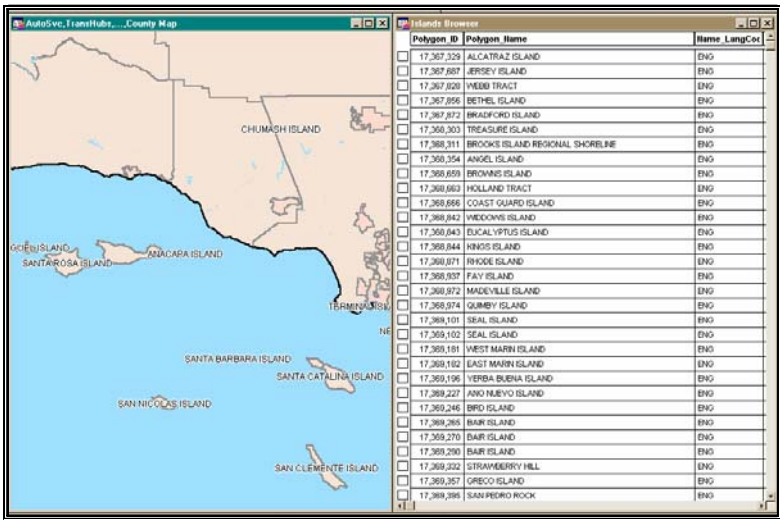
4.1.26 Islands

The Islands layer contains all islands within a NAVSTREETS coverage area. An island is represented as a polygonal feature. The Islands layer is used for map visualisation.

ArcView



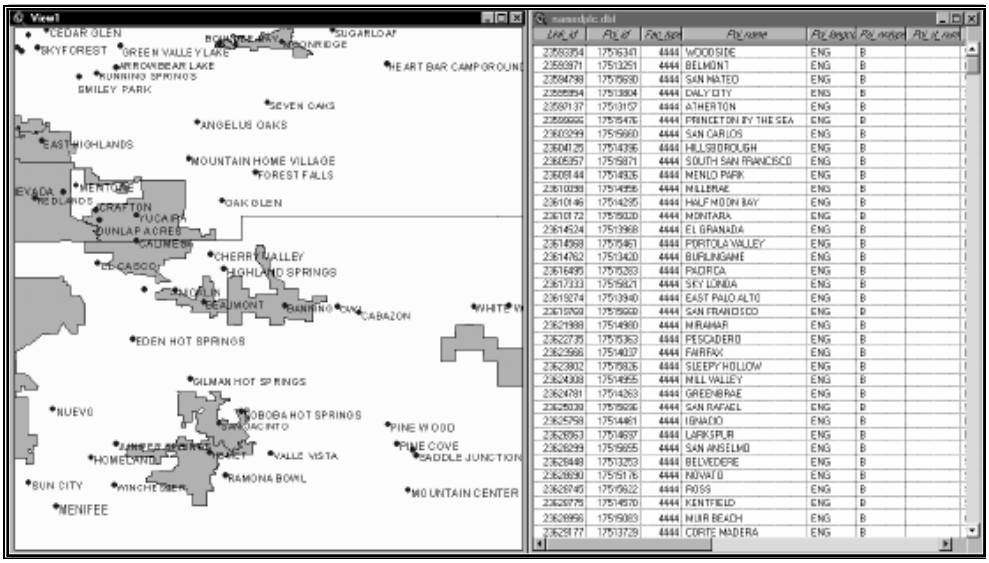
MapInfo



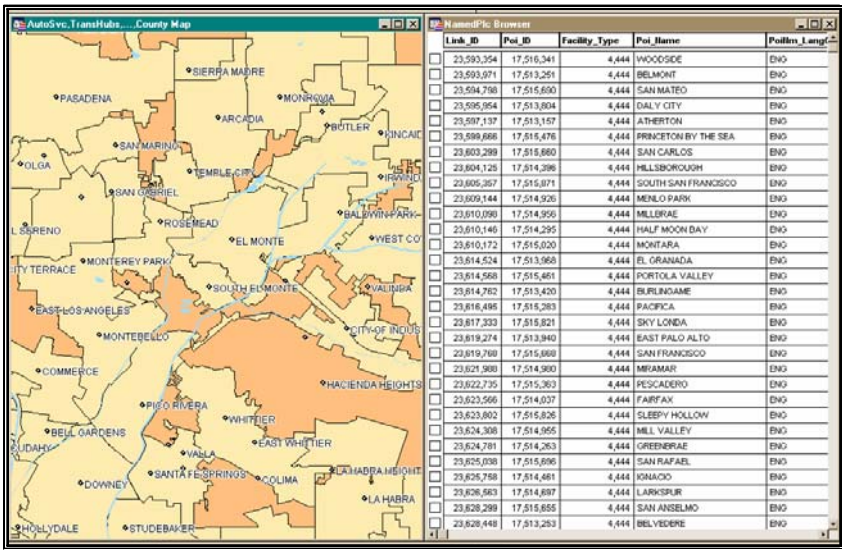
4.1.27 Named Places

The Named Places layer contains the names of populated areas within a NAVSTREETS coverage area (e.g. all US cities, towns, or villages). In Europe, there are named places for all municipalities, and all other settlements that are over 200,000m2. The location of a named place is usually a city centre, or a main point such as a city hall, police station, or library. The Named Places layer is especially useful for calculating routes to a non-specific location (e.g. London to Paris).

ArcView



MapInfo



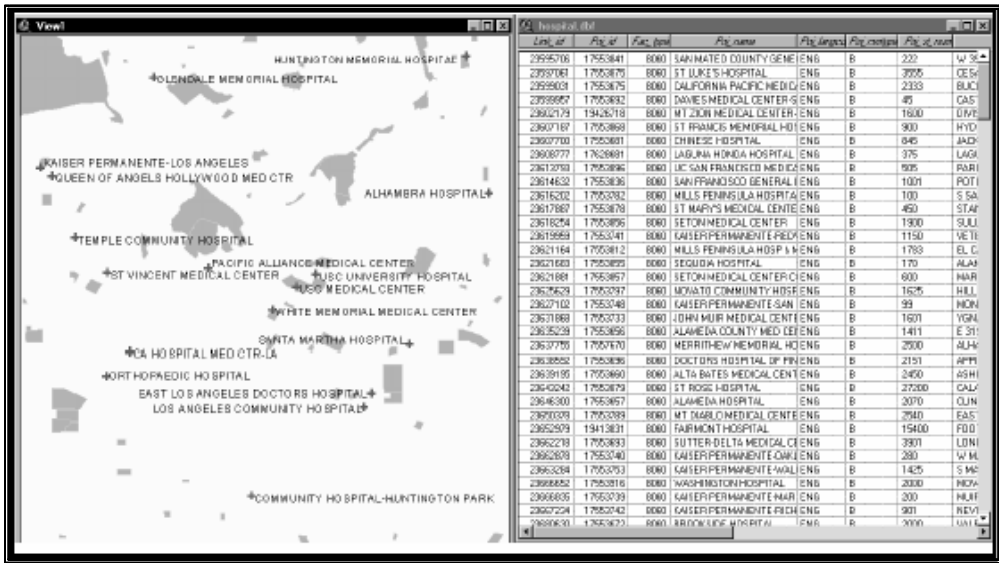
4.1.28 Hamlets

The Hamlets layer contains the names of populated areas within the NAVSTREETS detailed coverage area (e.g. villages). A Hamlet is a very small village, typically without a church. In some countries, these Hamlets are well known locations and are used by inhabitants to refer to their home address. When the Hamlet is a duplicate of a Named Place, no Hamlet will be included.

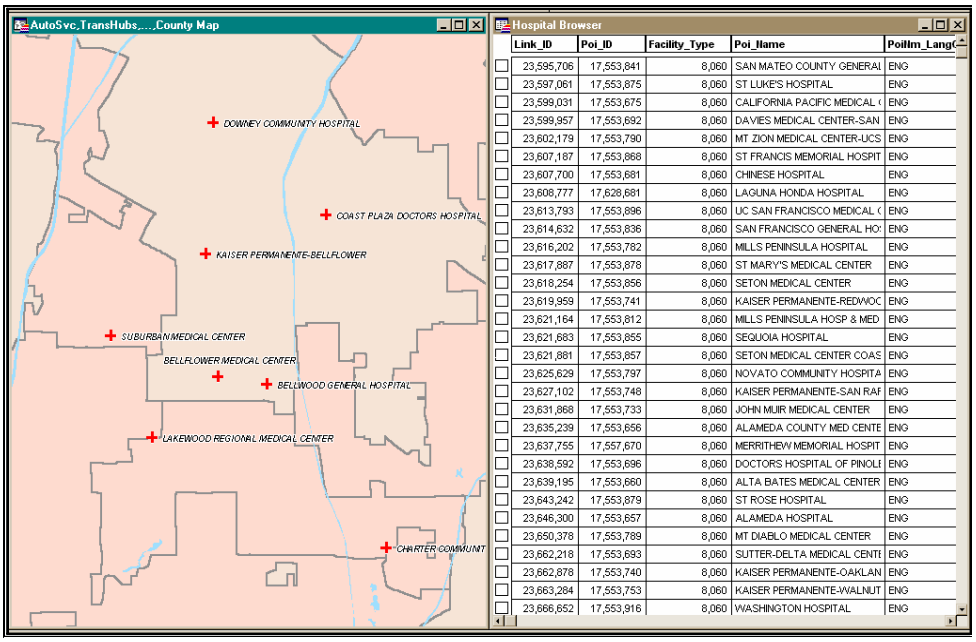
4.1.29 Hospitals

The Hospitals layer contains facilities within a NAVSTREETS coverage area that provide in-patient and emergency care for people. This layer is used for destination selection, geocoding, and map visualisation.

ArcView



MapInfo



4.1.30 Parks and Recreation

The Parks and Recreation layer contains Amusement Parks, Golf Courses, Museums, Sports Complexes, Marinas, Public Sport Airports, Bowling Centres, Park/Recreation areas, Casinos, Sports Centres, and Ice Skating Rinks within a NAVSTREETS coverage area. This layer is used for destination selection, geocoding, and map visualisation.

Amusement Parks These include locally known parks that contain rides or other entertainment that may be based on a central theme.

Golf Courses These include all private and public golf courses.

Museums These include museums of regional importance that are open to the public.

Sports Complexes These include all multi-use indoor arenas that seat more than 1,000 people, multi-use outdoor arenas that seat more than 10,000 people, and race tracks.

Marinas These are specific to yacht harbours and public docking facilities. This category is exclusive to North America.

Public Sport Airports These include all airfields designated for recreational purposes (e.g. to fly hot air balloons, use gliders, get flying lessons, or fly private airplanes). This category is exclusive to Europe.

Bowling Centres These include major bowling centres that are regionally known and have more than six bowling alleys. This category is exclusive to Europe.

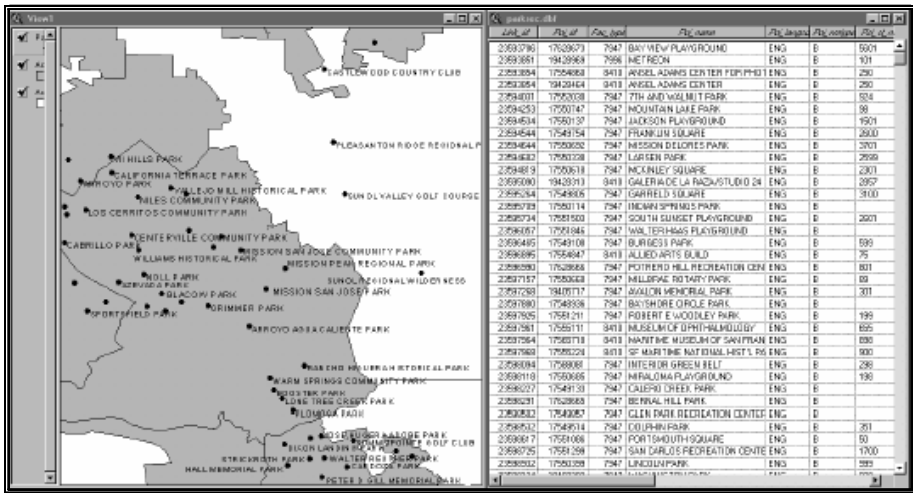
Park/ Recreation Areas These include areas of public land that are preserved and maintained for recreational use (public parks and recreation parks).

Casinos In the United States, these include any variety of gambling and gaming establishments ranging from the large casinos in Las Vegas to riverboat gambling and card rooms that draw regionally. In Europe and Canada, NAVSTREETS only includes casinos that are licensed by the government.

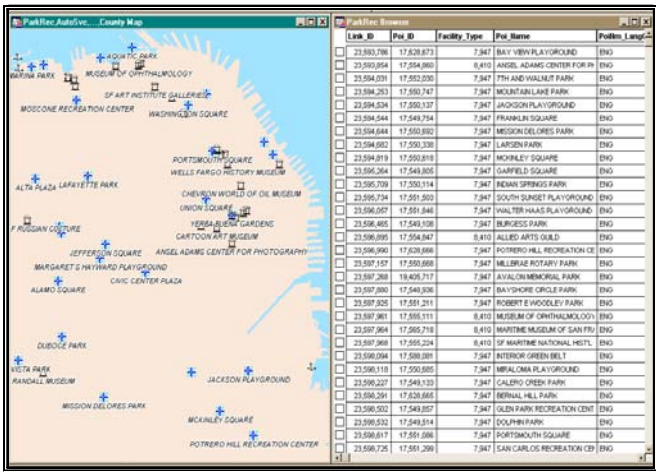
Sports Centres These include all combined sport centres, swimming and tennis facilities, and famous public fitness centres that also offer other facilities like sauna and massage. This category is exclusive to Europe.

Ice Skating Rinks These include all indoor and outdoor facilities designed for all types of ice skating. This category is exclusive to Europe.

ArcView:



MapInfo



4.1.31 Transportation Hubs

The Transportation Hubs layer contains all Airports, Bus Stations, Train Stations, and Ferry Terminals within a NAVSTREETS coverage area. This layer is used for destination selection, geocoding, and map visualisation.

Airports These include all national public airports in Europe (more than 300,000 passengers per year), all FAA certified airports in the United States, and all public airports in Canada.

Bus Stations These are facilities that function as a hub for a bus service network, including those that provide park and ride facilities, and long distance and/or inter-city bus service.

Train Stations These include all facilities that function as a hub for passengers and goods traveling between metropolitan areas along a railway network.

Ferry Terminals This category is specific to structures established and maintained by ferry services that transport passengers and automotive vehicles by rail or water.

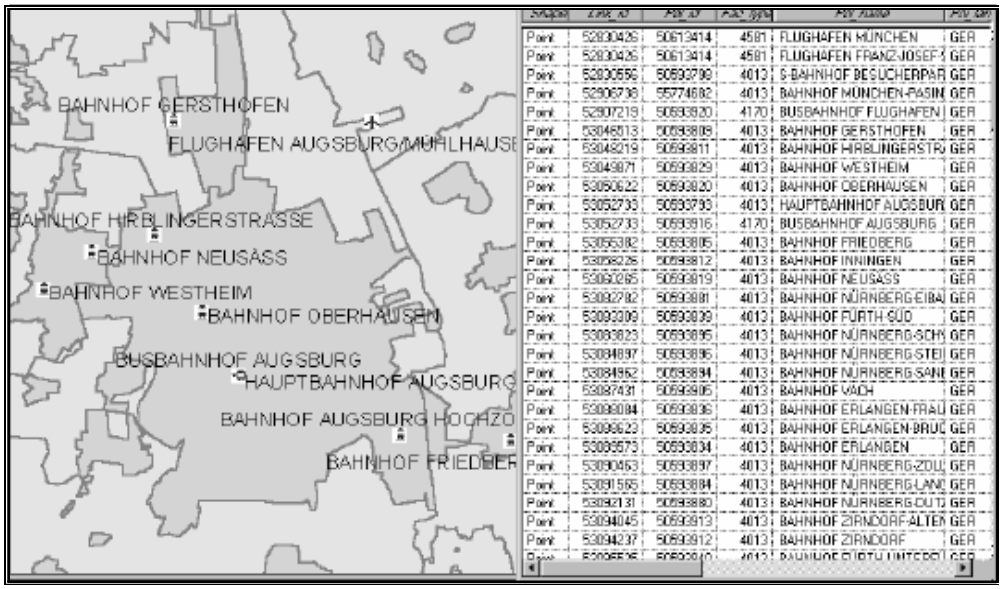
Public Transit Stop These are points where passengers can board a public transportation vehicle.

Public Transit Access These facilities represent multiple entrances for one Public Transit Stop.

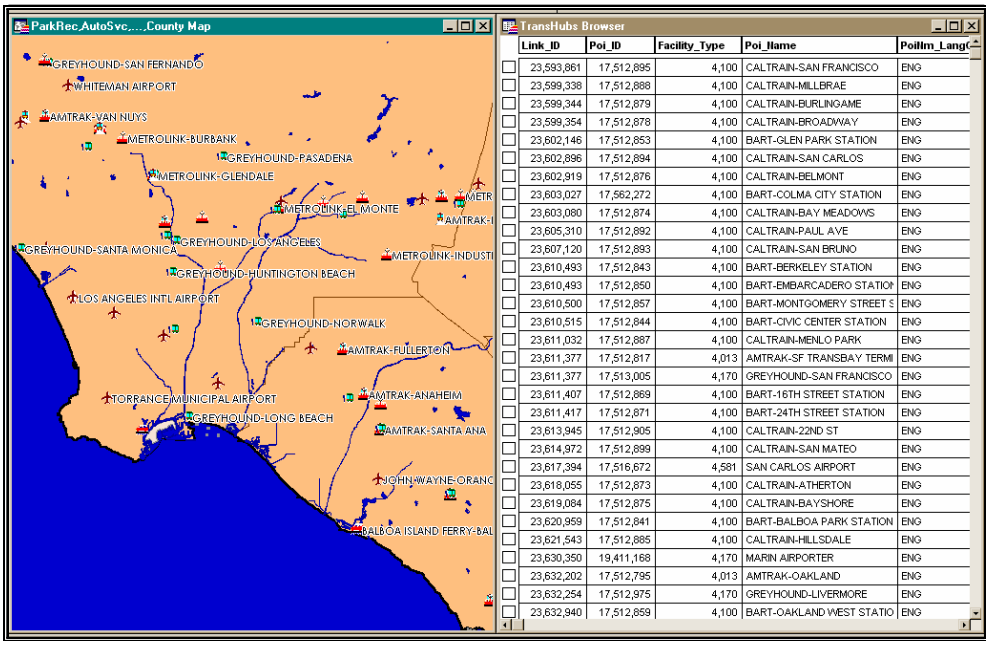
Taxi Stand These are designated areas for queuing, loading and unloading taxis.

Commuter Rail Stations These are facilities established to provide inter-city and commuter rail transportation. This includes all metro stations in the UK.

ArcView



MapInfo



4.1.32 Travel Destinations

The Travel Destinations layer contains all hotels, motels, significant tourist attractions, and tourist information locations within your NAVSTREETS detailed coverage area. This layer is used for destination selection, geocoding, and map visualisation.

Hotels/ Motels These include all chain and locally known independent hotels and motels.

Tourist Attractions These include regionally known landmarks that do not meet the criteria for inclusion in a more specific category (an example of a more specific category is Historical Monuments, which contains historical sites, monuments, etc.).

Tourist Information These include all tourist information offices that provide services such as lodging procurement, tourism information, and events schedules and information.

Convention/ Exhibition Centres These include all regionally known convention centres used for large events such as trade shows, trade fairs, or conventions.

Wineries These include wineries that provide tours or wine tasting.

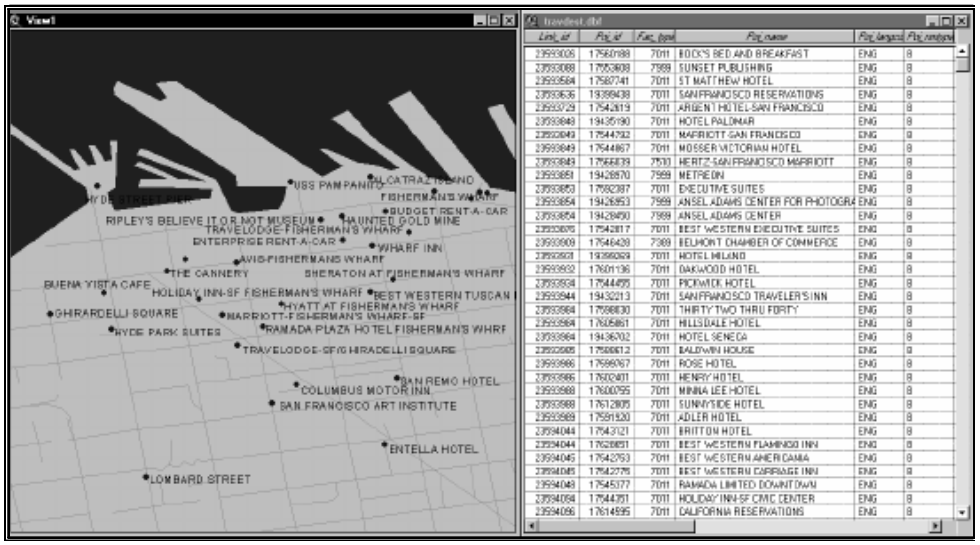
Ski Resorts These include nationally or regionally recognised downhill ski resorts (i.e. larger resorts with multiple ski lifts and lodge facilities).

Rest Areas These include any signed/named rest areas along motorways where the entrance leads only to the rest area.

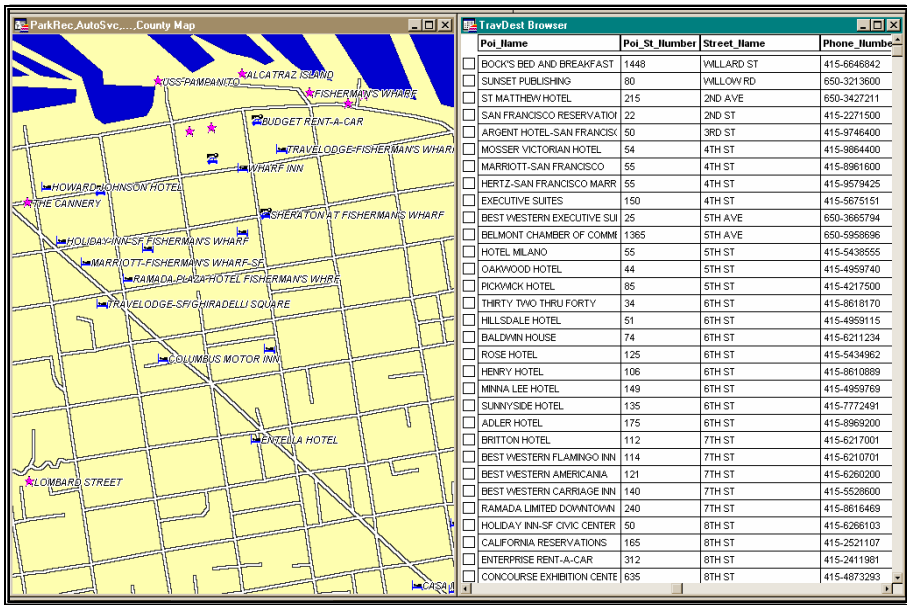
Historical Monuments These include buildings, statues, monuments, or sites with important historical or cultural value.

Rental Car Agencies These include all rental car agency chain locations that have pick-up and return facilities.

ArcView



MapInfo

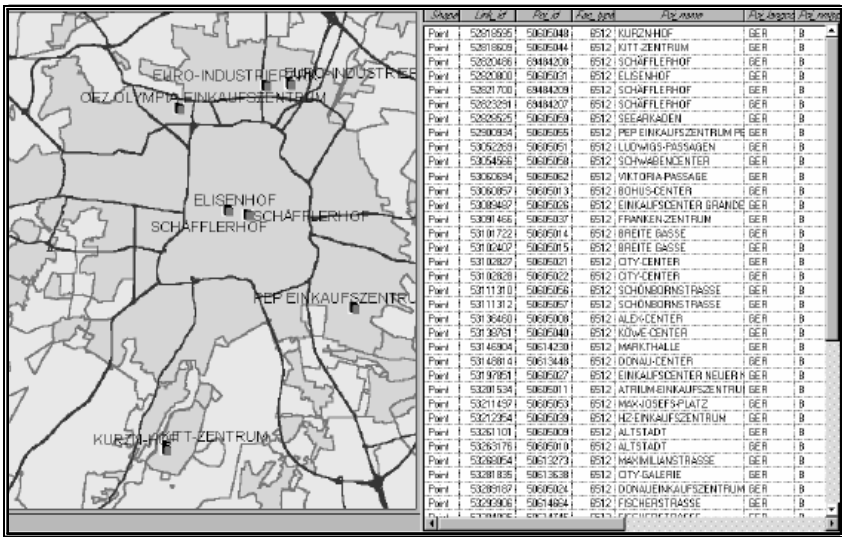


4.1.33 Shopping

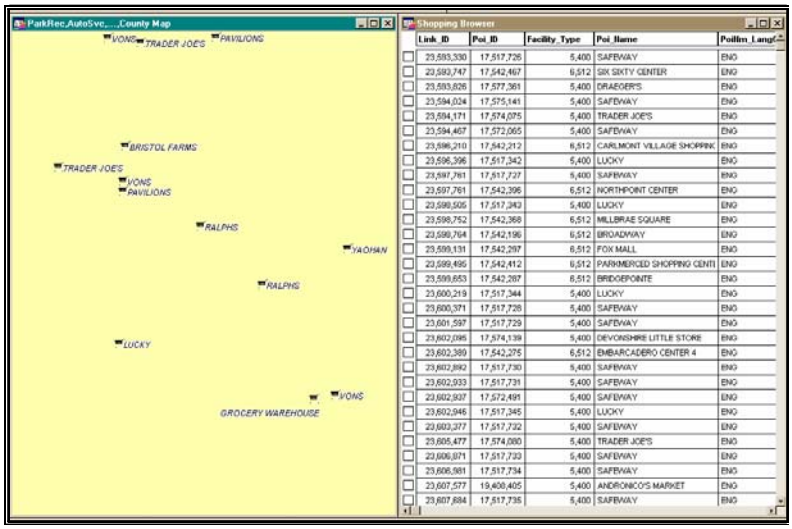
The Shopping layer contains shopping destinations identified as grocery stores (only chains and other locally known large grocery stores), or a complex of businesses, such as retail stores and restaurants, grouped together and sharing common services such as parking or utilities. This layer is used for destination selection, geocoding, and map visualisation.

In Europe, this includes all covered shopping centers and pedestrian areas with shops and restaurants. In North America, the Shopping layer includes all enclosed shopping malls of regional importance ("strip malls" are not included).

ArcView



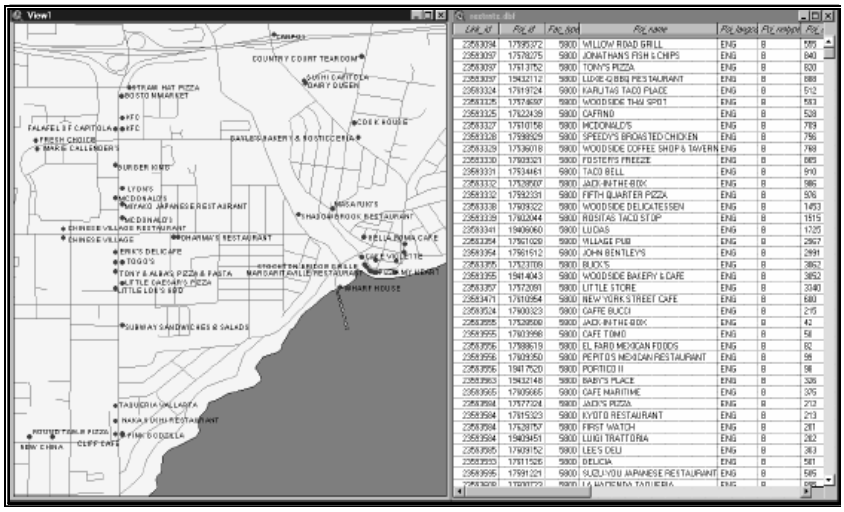
MapInfo



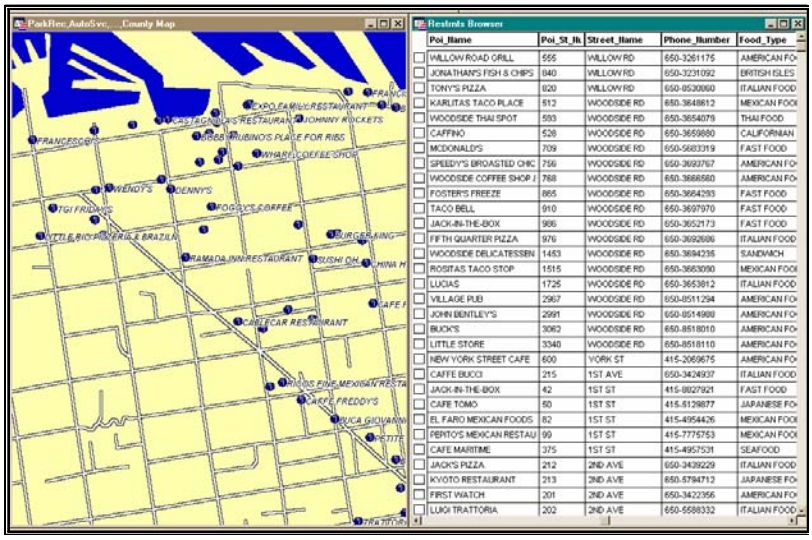
4.1.34 Restaurants

The Restaurants layer contains all restaurants within a NAVSTREETS coverage area. This includes all chain and locally known restaurants, as well as those located at rest areas along motorways. This layer is used for destination selection, geocoding, and map visualisation.

ArcView



MapInfo



4.1.35 Entertainment

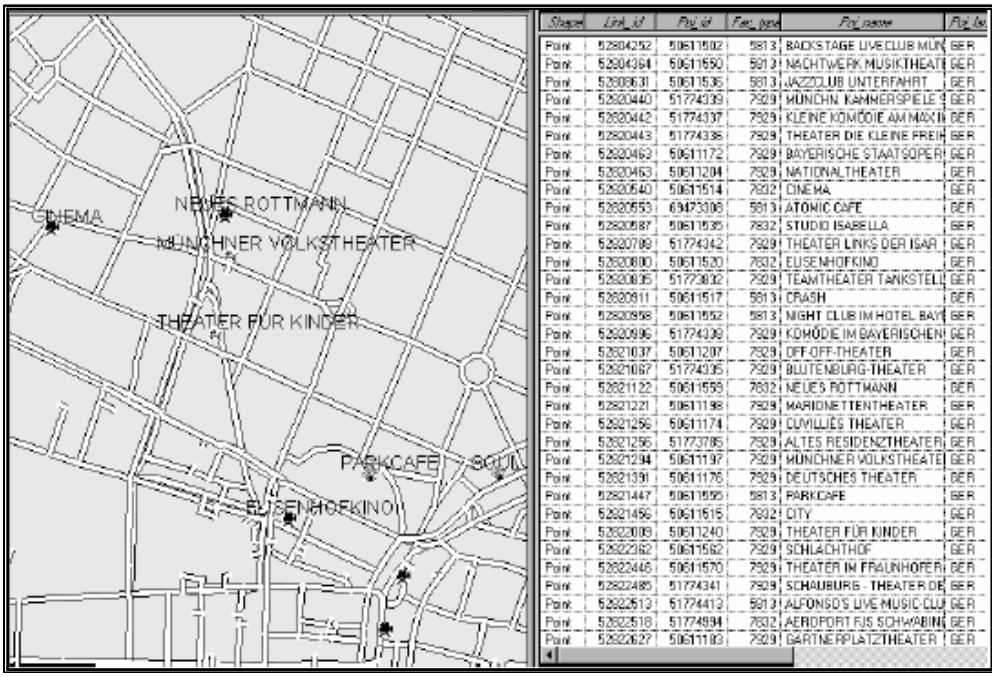
The Entertainment layer contains all nightlife, performing arts, and entertainment destinations within a NAVSTREETS coverage area. This layer is used for destination selection, geocoding, and map visualisation.

Nightlife This is specific to places that offer live music, and includes most famous music clubs in a European detailed coverage area. This category is exclusive to European detailed coverage areas.

Performing Arts These include all cultural centres, concert halls, and theatres that seat more than 250 people, or that are locally known within the NAVSTREETS detailed coverage area.

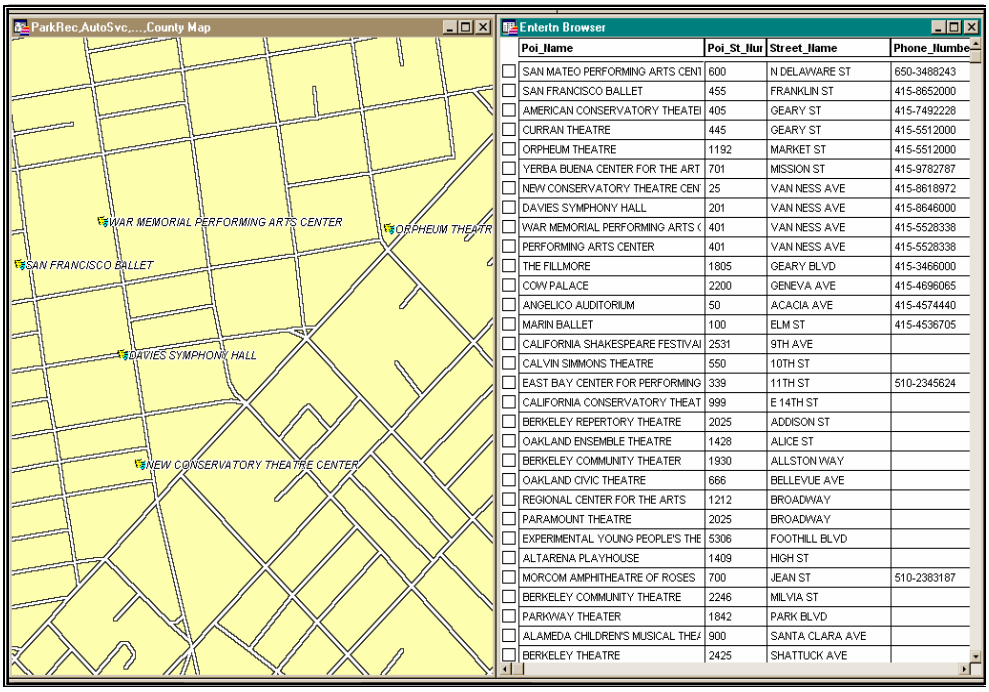
Cinemas These include all cinemas with more than 200 seats. This category is exclusive to European detailed coverage areas.

ArcView



Shape	Link_id	Poi_id	Fac_type	Poi_name	Poi_lo
Point	52804252	50611502	5813	BACKSTAGE LIVE CLUB MÜN	GER
Point	52804364	50611550	5813	NACHTWERK MUSIKTHEATE	GER
Point	52808631	50611535	5813	JAZZCLUB UNTERFAHRT	GER
Point	52820440	51774039	7929	MÜNCHN. KAMMERSPIELE	GER
Point	52820442	51774037	7929	KLEINE KOMÖDIE AM MAXI	GER
Point	52820443	51774336	7929	THEATER DIE KLEINE FREIH	GER
Point	52820462	50611172	7929	BAYERISCHE STAATSOPER	GER
Point	52820463	50611204	7929	NATIONALTHEATER	GER
Point	52820540	50611514	7832	CINEMA	GER
Point	52820553	63473306	5813	ATOMIC CAFE	GER
Point	52820587	50611535	7832	STUDIO ISABELLA	GER
Point	52820799	51774342	7929	THEATER LINKS DER ISAR	GER
Point	52820800	50611520	7832	EUSENHOFKINO	GER
Point	52820835	51773832	7929	TEAMTHEATER TANKSTELL	GER
Point	52820911	50611517	5813	CRASH	GER
Point	52820958	50611552	5813	NIGHT CLUB IM HOTEL BAY	GER
Point	52820996	51774038	7929	KOMÖDIE IM BAYERISCHEN	GER
Point	52821037	50611207	7929	OFF-OFF-THEATER	GER
Point	52821087	51774035	7929	BLUTENBURG-THEATER	GER
Point	52821122	50611559	7832	NEUES ROTTMANN	GER
Point	52821221	50611198	7929	MARIONETTENTHEATER	GER
Point	52821256	50611174	7929	CUVILLIÉS THEATER	GER
Point	52821256	51773785	7929	ALTES RESIDENZTHEATER	GER
Point	52821294	50611197	7929	MÜNCHNER VOLKSTHEATE	GER
Point	52821391	50611176	7929	DEUTSCHES THEATER	GER
Point	52821447	50611555	5813	PARKCAFE	GER
Point	52821456	50611515	7832	CITY	GER
Point	52822009	50611240	7929	THEATER FÜR KINDER	GER
Point	52822362	50611562	7929	SCHLACHTHOF	GER
Point	52822446	50611570	7929	THEATER IN FRAUNHOFER	GER
Point	52822485	51774341	7929	SCHAUBURG - THEATER DE	GER
Point	52822513	51774413	5813	ALFONSO'S LIVE MUSIC CLU	GER
Point	52822518	51774934	7832	AEROPORT FJS SCHWABING	GER
Point	52822627	50611183	7929	GÄRTNERPLATZTHEATER	GER

MapInfo



Poi_Name	Poi_St_Nur	Street_Name	Phone_Numbe
SAN MATEO PERFORMING ARTS CENT	600	N DELAWARE ST	650-3488243
SAN FRANCISCO BALLET	455	FRANKLIN ST	415-8652000
AMERICAN CONSERVATORY THEATEI	405	GEARY ST	415-7492228
CURRAN THEATRE	445	GEARY ST	415-5512000
ORPHEUM THEATRE	1192	MARKET ST	415-5512000
YERBA BUENA CENTER FOR THE ART	701	MISSION ST	415-9782787
NEW CONSERVATORY THEATRE CEN	25	VAN NESS AVE	415-8618972
DAVIES SYMPHONY HALL	201	VAN NESS AVE	415-8646000
WAR MEMORIAL PERFORMING ARTS (	401	VAN NESS AVE	415-5528338
PERFORMING ARTS CENTER	401	VAN NESS AVE	415-5528338
THE FILLMORE	1805	GEARY BLVD	415-3466000
COW PALACE	2200	GENEVA AVE	415-4696065
ANGELICO AUDITORIUM	50	ACACIA AVE	415-4574440
MARIN BALLET	100	ELM ST	415-4536705
CALIFORNIA SHAKESPEARE FESTIVAI	2531	9TH AVE	
CALVIN SIMMONS THEATRE	550	10TH ST	
EAST BAY CENTER FOR PERFORMING	339	11TH ST	510-2345624
CALIFORNIA CONSERVATORY THEAT	999	E 14TH ST	
BERKELEY REPERTORY THEATRE	2025	ADDISON ST	
OAKLAND ENSEMBLE THEATRE	1428	ALICE ST	
BERKELEY COMMUNITY THEATER	1930	ALLSTON WAY	
OAKLAND CIVIC THEATRE	666	BELLEVUE AVE	
REGIONAL CENTER FOR THE ARTS	1212	BROADWAY	
PARAMOUNT THEATRE	2025	BROADWAY	
EXPERIMENTAL YOUNG PEOPLE'S THE	5306	FOOTHILL BLVD	
ALTARENA PLAYHOUSE	1409	HIGH ST	
MORCOM AMPHITHEATRE OF ROSES	700	JEAN ST	510-2383187
BERKELEY COMMUNITY THEATRE	2246	MILVIA ST	
PARKWAY THEATER	1842	PARK BLVD	
ALAMEDA CHILDREN'S MUSICAL THEA	900	SANTA CLARA AVE	
BERKELEY THEATRE	2425	SHATTUCK AVE	

4.1.36 Auto Maintenance, Service, and Petrol

The Auto Maintenance, Service, and Petrol layer contains all automobile service and petrol stations within a NAVSTREETS coverage area. This layer is used for destination selection, geocoding, and map visualisation.

Petrol/Gas Stations These include all petrol/gas stations and convenience stores that sell gasoline.

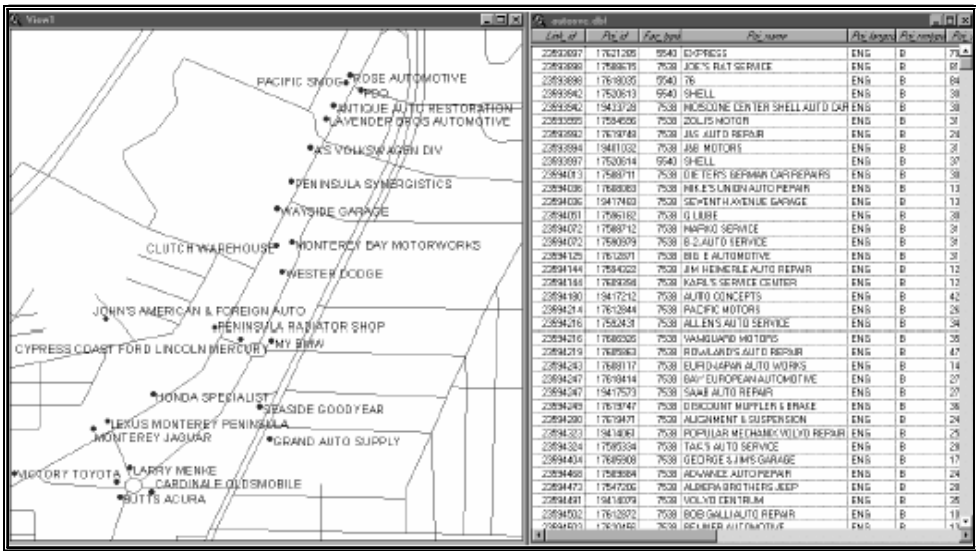
Auto Service and Maintenance These include all major automotive service chains, dealerships, and (for the United States), AAA approved repair facilities within a NAVSTREETS North American detailed coverage areas. This category is exclusive to North America.

Automobile Dealerships These are specific to new car dealerships based on auto manufacturer supplied lists.

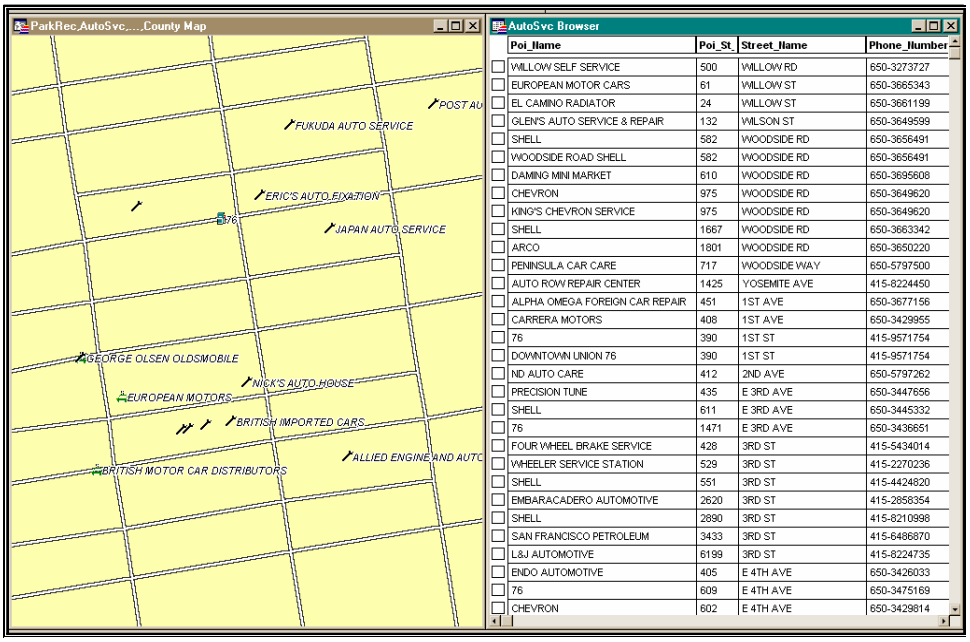
Automobile Clubs These include all AAA and CAA branch and main office locations in North America. This category is exclusive to North America.

Motorcycle Dealerships These are specific to new motorcycle dealerships based on motorcycle manufacturer supplied lists.

ArcView



MapInfo

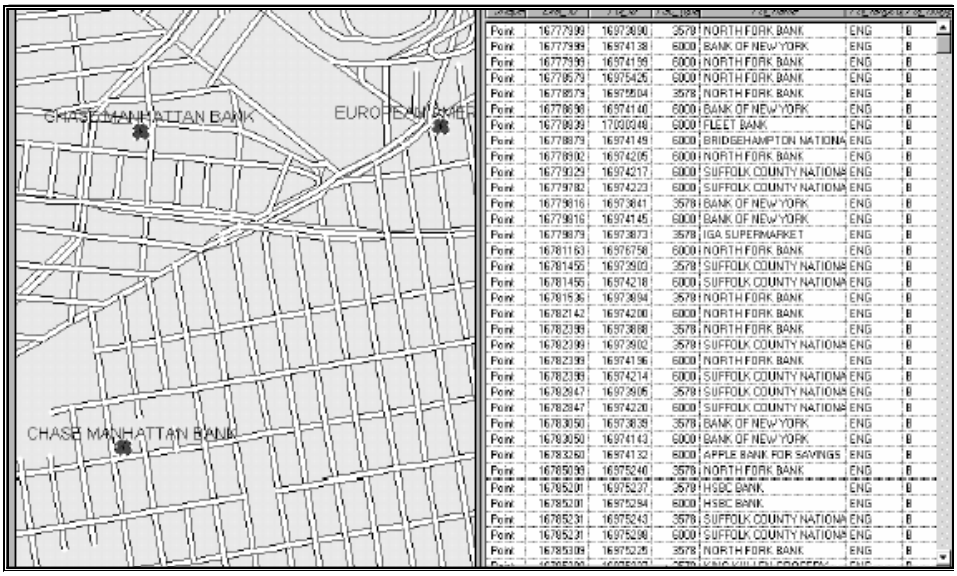


Poi_Name	Poi_St_	Street_Name	Phone_Number
WILLOW SELF SERVICE	500	WILLOW RD	650-3273727
EUROPEAN MOTOR CARS	61	WILLOW ST	650-3665343
EL CAMINO RADIATOR	24	WILLOW ST	650-3661199
GLEN'S AUTO SERVICE & REPAIR	132	WILSON ST	650-3649599
SHELL	582	WOODSIDE RD	650-3656491
WOODSIDE ROAD SHELL	582	WOODSIDE RD	650-3656491
DAMING MINI MARKET	610	WOODSIDE RD	650-3695608
CHEVRON	975	WOODSIDE RD	650-3649620
KING'S CHEVRON SERVICE	975	WOODSIDE RD	650-3649620
SHELL	1667	WOODSIDE RD	650-3663342
ARCO	1801	WOODSIDE RD	650-3650220
PENINSULA CAR CARE	717	WOODSIDE WAY	650-5797500
AUTO ROW REPAIR CENTER	1425	YOSEMITE AVE	415-8224450
ALPHA OMEGA FOREIGN CAR REPAIR	451	1ST AVE	650-3677156
CARRERA MOTORS	408	1ST AVE	650-3429955
76	390	1ST ST	415-9571754
DOWNTOWN UNION 76	390	1ST ST	415-9571754
ND AUTO CARE	412	2ND AVE	650-5797262
PRECISION TUNE	435	E 3RD AVE	650-3447656
SHELL	611	E 3RD AVE	650-3445332
76	1471	E 3RD AVE	650-3436651
FOUR WHEEL BRAKE SERVICE	428	3RD ST	415-5434014
WHEELER SERVICE STATION	529	3RD ST	415-2270236
SHELL	551	3RD ST	415-4424820
EMBARACADERO AUTOMOTIVE	2620	3RD ST	415-2858354
SHELL	2890	3RD ST	415-8210998
SAN FRANCISCO PETROLEUM	3433	3RD ST	415-6486870
L&J AUTOMOTIVE	6199	3RD ST	415-8224735
ENDO AUTOMOTIVE	405	E 4TH AVE	650-3426033
76	609	E 4TH AVE	650-3475169
CHEVRON	602	E 4TH AVE	650-3429814

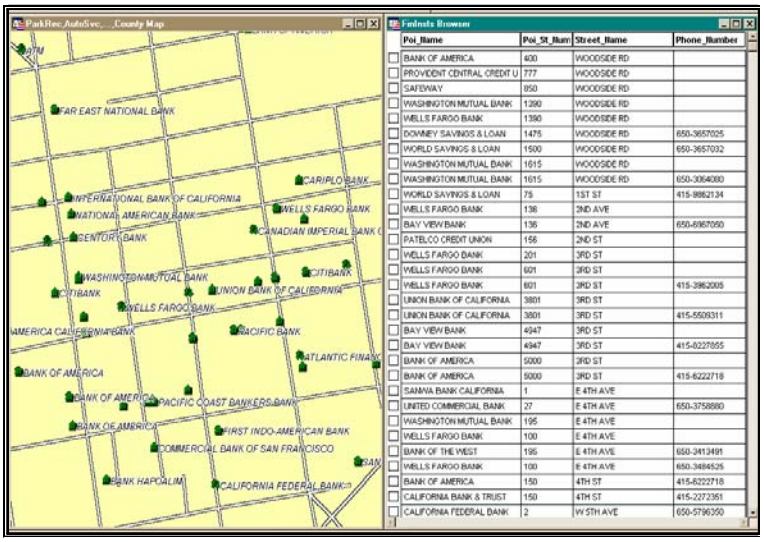
4.1.37 Financial Solutions

The Financial Institutions layer contains all banks (headquarters and regional office locations), and ATMs of the major banks and networks within a NAVSTREETS detailed coverage areas in North America. This layer is used for destination selection, geocoding, and map visualisation.

ArcView



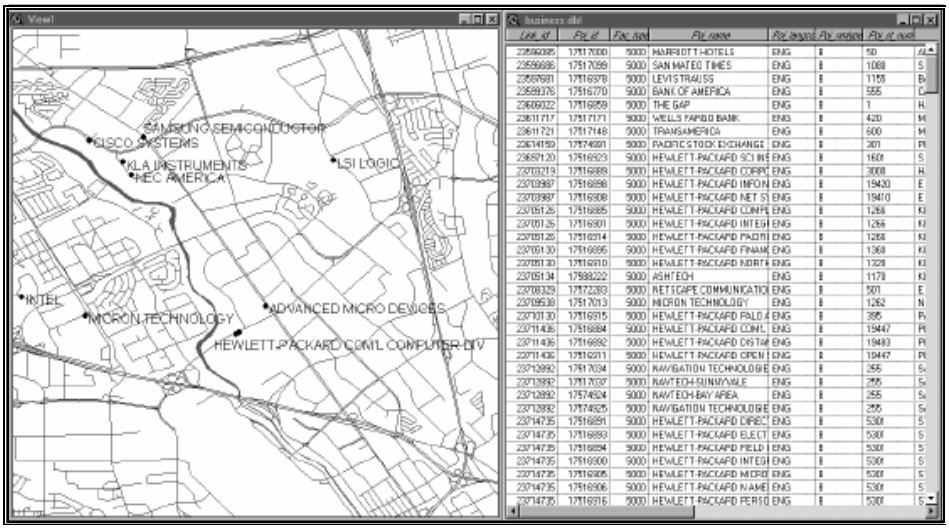
MapInfo



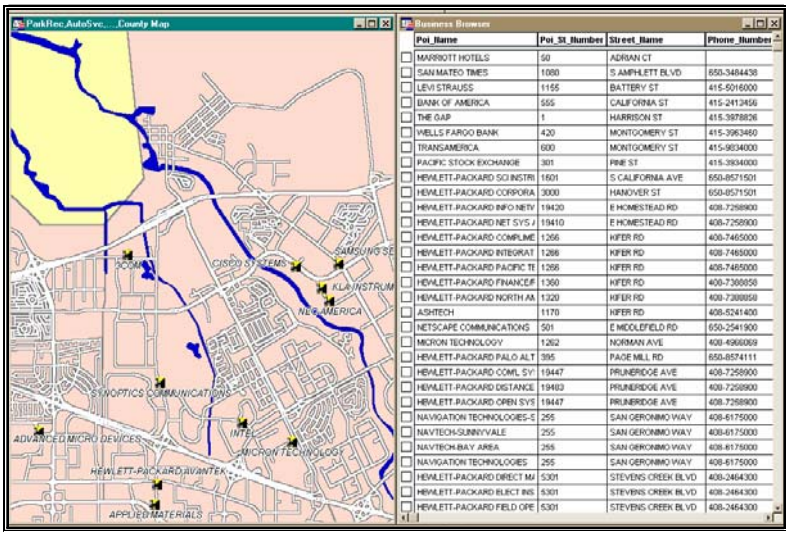
4.1.38 Business Facilities

The Business Facilities layer contains all businesses that are considered the largest employers in each city as determined by the Chambers of Commerce. These include headquarters, all regional office locations, and all NAVTEQ offices. In Europe, this layer only includes NAVTEQ offices and client specified offices. This layer is used for destination selection, geocoding, and map visualisation.

ArcView



MapInfo



4.1.39 Community Service Centres

The Community Service Centres layer contains all civic/community centres, city halls, court houses, religious buildings, and police stations within a NAVSTREETS coverage area. This layer is used for destination selection, geocoding, and map visualisation.

Civic/ Community Centre These include all civic or community centres (public buildings used for community events). In Europe, this is specific to civic or community centres with a regional function.

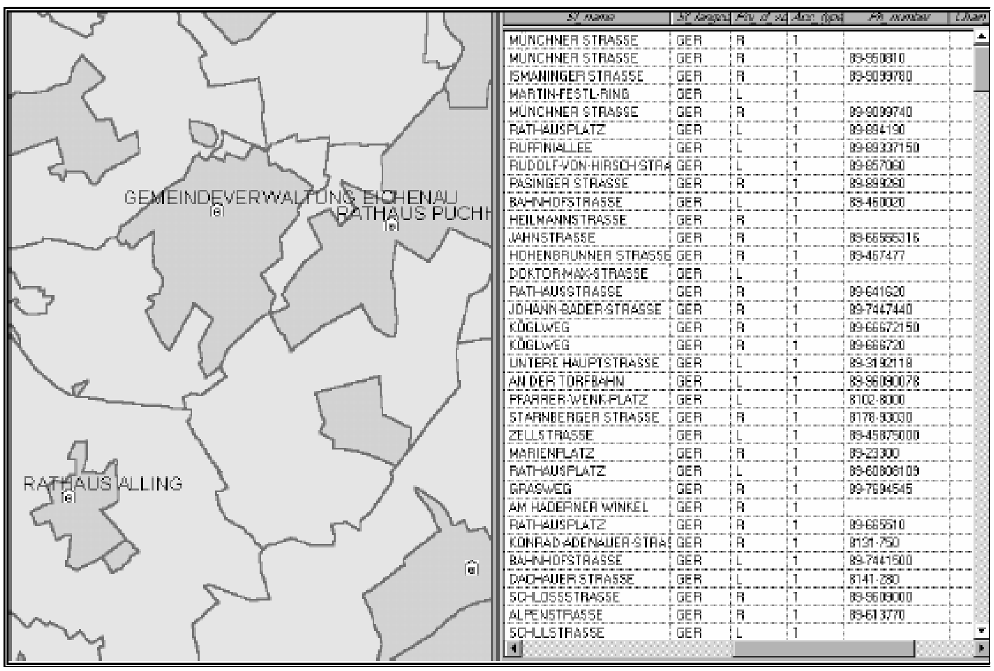
City Hall These include the city hall of each municipality or settlement within the NAVSTREETS detailed coverage area.

Court House These include court houses at any level of government. This category is exclusive to North America.

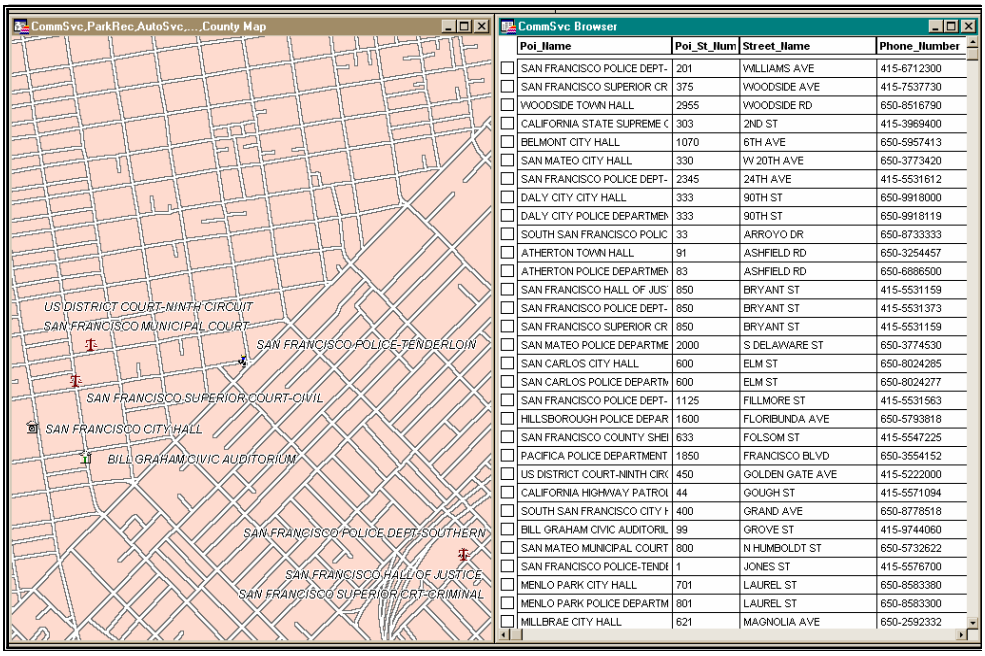
Police Station These include any police stations within the NAVSTREETS detailed coverage area. This category is exclusive to North America.

Place of Worship These include all places of worship within the NAVSTREETS coverage area.

<u>ArcView</u>



MapInfo



Poi_Name	Poi_St_Num	Street_Name	Phone_Number
SAN FRANCISCO POLICE DEPT-	201	WILLIAMS AVE	415-6712300
SAN FRANCISCO SUPERIOR CR	375	WOODSIDE AVE	415-7537730
WOODSIDE TOWN HALL	2955	WOODSIDE RD	650-8516790
CALIFORNIA STATE SUPREME C	303	2ND ST	415-3969400
BELMONT CITY HALL	1070	6TH AVE	650-5957413
SAN MATEO CITY HALL	330	W 20TH AVE	650-3773420
SAN FRANCISCO POLICE DEPT-	2345	24TH AVE	415-5531612
DALY CITY CITY HALL	333	90TH ST	650-9918000
DALY CITY POLICE DEPARTMEN	333	90TH ST	650-9918119
SOUTH SAN FRANCISCO POLIC	33	ARROYO DR	650-8733333
ATHERTON TOWN HALL	91	ASHFIELD RD	650-3254457
ATHERTON POLICE DEPARTMEN	83	ASHFIELD RD	650-6886500
SAN FRANCISCO HALL OF JUS	850	BRYANT ST	415-5531159
SAN FRANCISCO POLICE DEPT-	850	BRYANT ST	415-5531373
SAN FRANCISCO SUPERIOR CR	850	BRYANT ST	415-5531159
SAN MATEO POLICE DEPARTME	2000	S DELAWARE ST	650-3774530
SAN CARLOS CITY HALL	600	ELM ST	650-8024285
SAN CARLOS POLICE DEPARTM	600	ELM ST	650-8024277
SAN FRANCISCO POLICE DEPT-	1125	FILLMORE ST	415-5531563
HILLSBOROUGH POLICE DEPAR	1600	FLORIBUNDA AVE	650-5793818
SAN FRANCISCO COUNTY SHEI	633	FOLSOM ST	415-5547225
PACIFICA POLICE DEPARTMENT	1850	FRANCISCO BLVD	650-3554152
US DISTRICT COURT-NINTH CIR	450	GOLDEN GATE AVE	415-5222000
CALIFORNIA HIGHWAY PATROL	44	GOUGH ST	415-5571094
SOUTH SAN FRANCISCO CITY H	400	GRAND AVE	650-8778518
BILL GRAHAM CIVIC AUDITORIL	99	GROVE ST	415-9744060
SAN MATEO MUNICIPAL COURT	800	N HUMBOLDT ST	650-5732622
SAN FRANCISCO POLICE-TENDE	1	JONES ST	415-5576700
MENLO PARK CITY HALL	701	LAUREL ST	650-8583380
MENLO PARK POLICE DEPARTM	801	LAUREL ST	650-8583300
MILLBRAE CITY HALL	621	MAGNOLIA AVE	650-2592332

4.1.40 Educational Institutions

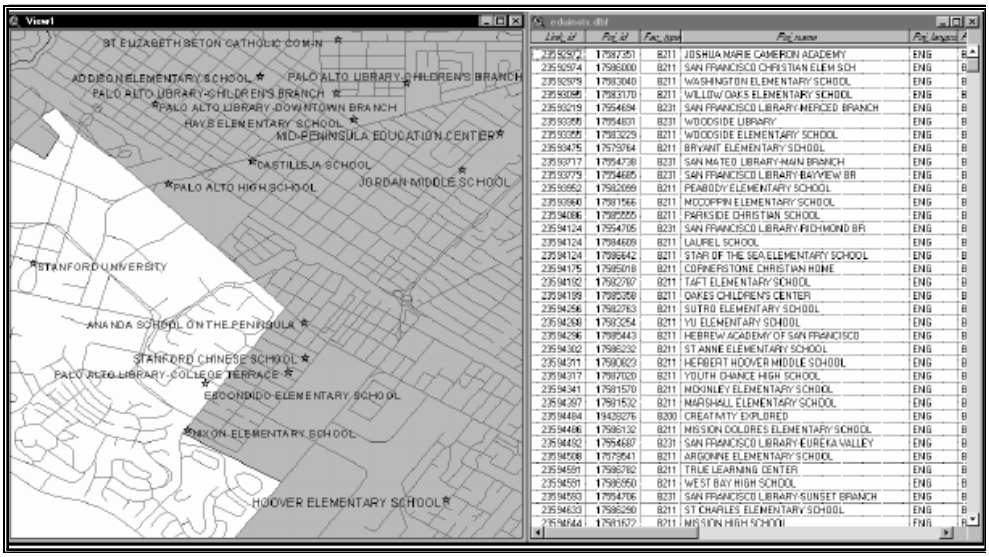
The Educational Institutions layer contains all schools, libraries and higher education facilities within a NAVSTREETS coverage area. This layer is used for destination selection, geocoding, and map visualisation.

School These include all K-12/elementary or secondary educational facilities. This category is exclusive to North America.

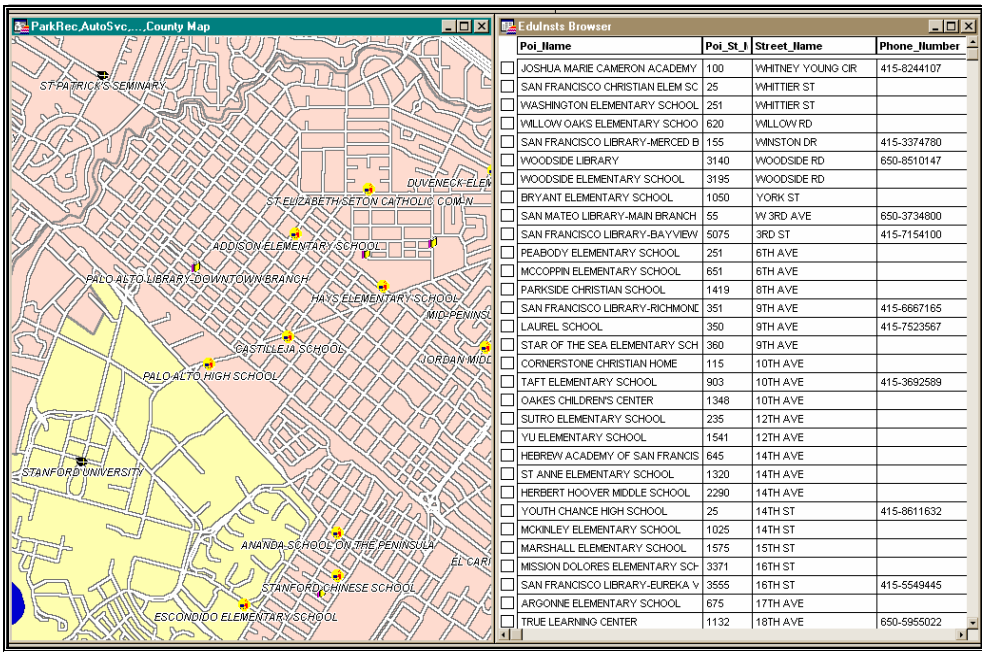
Library These include all public libraries within the NAVSTREETS detailed coverage area. This category is exclusive to North America.

Higher Education Facility These include the main administration building of any post secondary education facility, junior college, college, or university.

ArcView



MapInfo



4.1.41 Parking

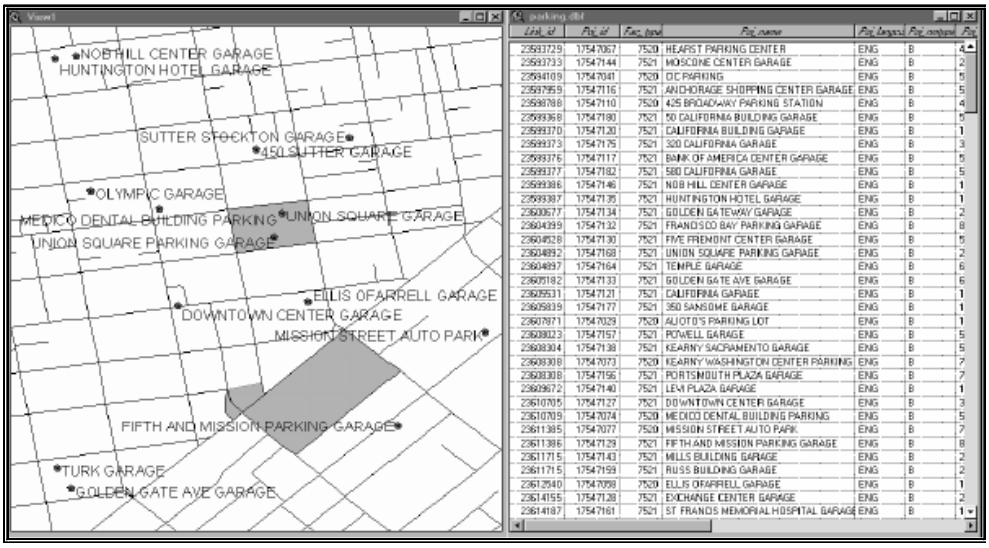
The Parking layer contains all parking lots, parking garages/houses and, park & rides within a NAVSTREETS coverage area. This layer is used for destination selection, geocoding, and map visualisation.

Parking Lot These include public parking lots based on local knowledge and airport parking lots.

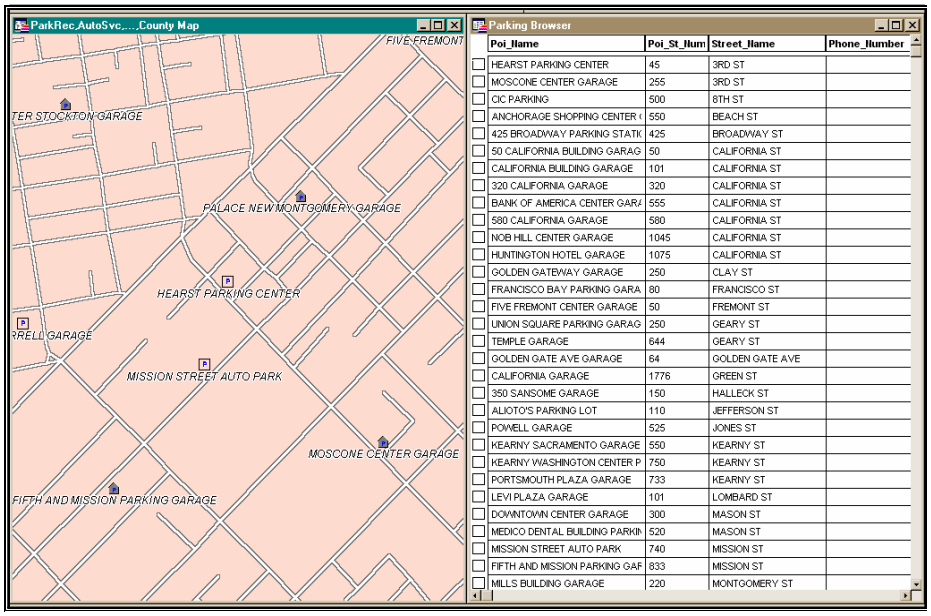
Parking Garage/ House These include enclosed facilities for parking motor vehicles such as public parking houses and garages based on local knowledge, and parking garages in airports.

Park & Ride These include all park & ride facilities designated on official city plans, or on signs as a Park & Ride.

ArcView



MapInfo



4.1.42 Border Crossing

The Border Crossing layer contains all international border crossings for all motorway crossings, as well as other important crossings that are not on motorways. This layer is used for destination selection, and map visualisation.

4.1.43 Miscellaneous Categories (MiscCategories)

The Miscellaneous Categories layer contains facilities within the NAVSTREETS coverage area that cannot be categorized into any other layer.

4.1.44 Post Office

The Post Office layer contains facilities within the NAVSTREETS coverage area that provide mail services.

4.1.45 Point Addresses

The Point Addresses layer contains the individual house numbers for a link, represented as point objects.

4.1.46 Point Of Interest Association

The Point of Interest Association layer contains a list of all the Point of Interest layer parent and child relationships within NAVSTREETS.

4.1.47 Aggregated Feature

The Aggregated Feature layer contains general aggregation (grouping) of polygonal features used in the context of City Model data: Grouped Structures or Grouped Complexes.

4.1.48 Aggregated Feature Component

The Aggregated Feature Component layer defines the components included in an Aggregated Feature.

4.1.49 Aggregated Feature File Association

The Aggregated Feature File Association layer defines the association of auxiliary files to an Aggregated Feature. The files are provided as auxiliary data outside the NAVSTREETS structure.

4.1.50 POI File Association

The POI File Association layer defines the association of auxiliary files to a POI. The files are provided as auxiliary data outside the NAVSTREETS structure.

4.1.51 Actual POI Location

The Actual POI Location layer contains the Actual POI Location display coordinates for POIs.

4.1.52 Metadata - Reference Classes

The Metadata -Reference Classes layer contains a description of all the coding schemes (Reference Classes) used within NAVSTREETS. See the References Classes layer description in Chapter 3 for a complete list of NAVSTREETS Reference Classes.

4.1.53 Metadata - Administrative Area

The Metadata - Administrative Area layer contains primary information about each Administrative Area within the NAVSTREETS detailed coverage area, This includes the Area Name, Government Code, Administrative Level, and Administrative Hierarchy.

4.1.54 Metadata - Zone Records

The Metadata - Zone Records layer contains primary information about each Zone included in NAVSTREETS. This includes the Zone ID, Zone Name, Language Code, Name Type, Zone Type, and Area ID.

4.1.55 Metadata - File Identification

The Metadata - File Identification layer contains information that uniquely identifies a particular NAVSTREETS database, including the date of creation, the version, and the geographic area represented in the file.

4.1.56 Metadata - Country Reference

The Metadata -Country Reference layer contains information that is particular to a given country. Information includes the country's Unit of Measure, Maximum Administrative Level, House Number Format, Driving Side, Phone Country Code, and a description of each of its administrative levels.

4.1.57 Metadata – Compound Reference

The Metadata - Compound Reference layer contains description information for the access restriction (HOV) condition modifiers.

Attributes per Layer

(This page intentionally left blank)

5.1 Introduction

5.1.1 General information

This section describes all the attributes per layer for ArcView, MapInfo and Oracle.

5.1.2 NAVSTREETS Entity Relationship Diagram

Figure *Figure 5-1* shows the main related attributes.

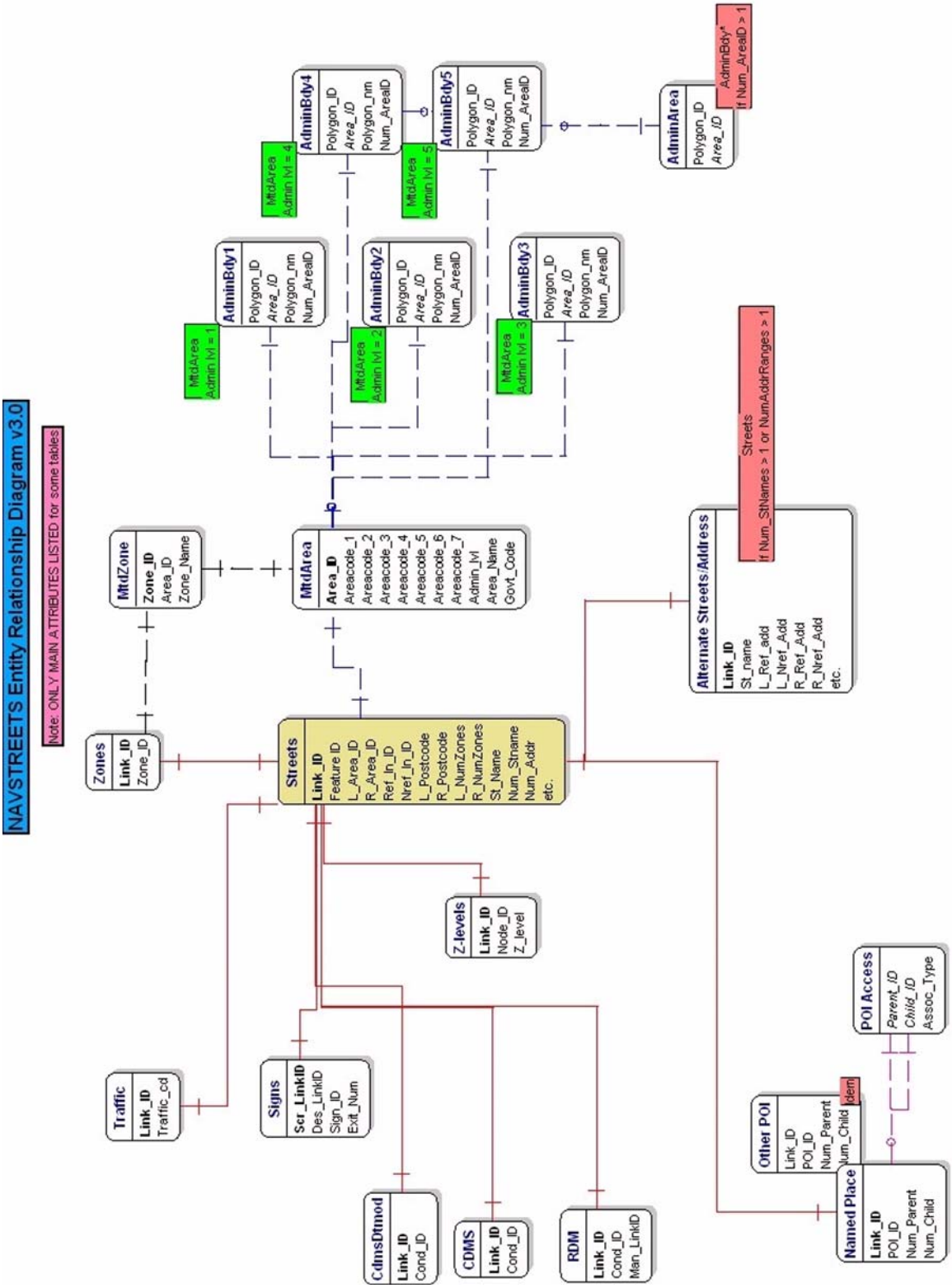

NAVSTREETS Entity Relationship Diagram v3.0
Note: ONLY MAIN ATTRIBUTES LISTED for some tables
MtdZone
Zone_ID
Area_ID
Zone_Name
MtdArea
Area_ID
Areacode_1
Areacode_2
Areacode_3
Areacode_4
Areacode_5
Areacode_6
Areacode_7
Admin_lvl
Area_Name
Govt_Code
MtdArea Admin lvl = 1
MtdArea Admin lvl = 2
MtdArea Admin lvl = 3
MtdArea Admin lvl = 4
MtdArea Admin lvl = 5
AdminBdy1
AdminBdy2
AdminBdy3
AdminBdy4
AdminBdy5
Polygon_ID
Area_ID
Polygon_nm
Num_AreaID
AdminArea
Polygon_ID
Area_ID
AdminBdy*
If Num_AreaID > 1
Zones
Link_ID
Zone_ID
Streets
Link_ID
Feature ID
L_Area_ID
R_Area_ID
Ref_In_ID
Nref_In_ID
L_Postcode
R_Postcode
L_NumZones
R_NumZones
St_Name
Num_Stname
Num_Addr
etc.
Alternate Streets/Address
Link_ID
St_name
L_Ref_add
L_Nref_Add
R_Ref_Add
R_Nref_Add
etc.
Streets
If Num_StNames > 1 or NumAddrRanges > 1
Z-levels
Link_ID
Node_ID
Z_level
Traffic
Link_ID
Traffic_cd
Signs
Scr_LinkID
Des_LinkID
Sign_ID
Exit_Num
CdmsDtmod
Link_ID
Cond_ID
CDMS
Link_ID
Cond_ID
RDM
Link_ID
Cond_ID
Man_LinkID
POI Access
Parent_ID
Child_ID
Assoc_Type
Other POI
Link_ID
POI_ID
Num_Parent
Num_Child
dem
Named Place
Link_ID
POI_ID
Num_Parent
Num_Child

Figure 5-1

5.2 ArcView

5.2.1 Major Highways (MajHwys)

The MajHwys (.shp, .shx, .dbf) files represent the Major Highways layer. Major Highways has a Scale Min/Max of 0/6,000,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	NSpen.avp Pen Palette: Highway (3) Boat Ferry (4) Train Ferry (5)
Fill Patterns	N/A

Attributes and Structure

The Major Highways layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a major highway when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Highway Name	Highway_Nm	Char(80)
Highway Name Language Code	Lang_Code	Char(3)
Functional Class	Func_Class	Char(1)
Route Type	Route_Type	Char(1)
Direction On Sign	DirOnSign	Char(1)
Ferry Type	Ferry_Type	Char(1)

5.2.2 Major Highway Shields (MajHwyShield)

The MajHwyShield (.shp, .shx, .dbf) files represent the Major Highway Shields layer. The Major Highway Shields layer has a Scale Min/Max of 0/185,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Points	transp.avp Marker Palette:  (0) Interstate Highway Nsmarker.avp Marker Palette:  (54) Federal Highway,  (14) State Highway  (59) Federal Highway (Canada),  (60) Provincial Highway (Canada)  (61) Regional Road (Canada)
Fill Patterns	N/A

Attributes and Structure

The Major Highway Shields layer contains the following attributes. Note that multiple point objects represent a Major Highway Shield icon when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Highway Name	Highway_Nm	Char(80)
Highway Name Language Code	Lang_Code	Char(3)
Direction On Sign	DirOnSign	Char(1)
Highway Type	Hwy_Type	Char(2)

5.2.3 Secondary Highways (SecHwys)

The SecHwys (.shp, .shx, .dbf) files represent the Secondary Highways layer. The Secondary Highways layer has a Scale Min/Max of 0/185,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	NSpen.avp Pen Palette: Highway (3) Boat Ferry (4) Train Ferry (5)
Fill Patterns	N/A

Attributes and Structure

The Secondary Highways layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a secondary highway when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Highway Name	Highway_Nm	Char(80)
Highway Name Language Code	Lang_Code	Char(3)
Functional Class	Func_Class	Char(1)
Route Type	Route_Type	Char(1)
Direction On Sign	DirOnSign	Char(1)
Ferry Type	Ferry_Type	Char(1)

5.2.4 Secondary Highway Shields (SecHwyShield)

The SecHwyShield (.shp, .shx, .dbf) files represent the Secondary Highway Shields layer. The Secondary Highway Shields layer has a Scale Min/Max of 0/185,000.

Object	*Font/Pen/Brush/Symbol*
Points	NSmarker.avp Marker Palette: transp.avp Marker Palette:  (0) Interstate Highway Nsmarker.avp Marker Palette:  (54) Federal Highway,  (14) State Highway  (59) Federal Highway (Canada),  (60) Provincial Highway (Canada)  (61) Regional Road (Canada)
Fill Patterns	N/A

Attributes and Structure

The Secondary Highway Shields layer contains the following attributes. Note that multiple point objects represent a Secondary Highway Shield icon when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Highway Name	Highway_Nm	Char(80)
Highway Name Language Code	Lang_Code	Char(3)
Direction On Sign	DirOnSign	Char(1)
Highway Type	Hwy_Type	Char(2)

5.2.5 Streets (Streets)

The Streets (.shp, .shx, .dbf) files represent the Streets layer. The Streets layer has a Scale Min/ Max of 0/70,000.

Note: The Street Layer will contain two extra files (streets.mxs, streets.ixs) in the layer that will allow it to be used as a reference theme in geocoding. The Geocode index is produced using the ArcView's create geocode index function with the US street address with zones format. This speeds up the process of finding addresses in the reference theme. (This is only applicable for North America.)

An Alternate Street Address table exists to model alternate names/addresses for Street Links. This table is non-geometrical, and thereby eliminates the duplicate geometry present in the current Streets layer.

Certain Street Layer entries will have a corresponding Alternate Street Address layer entry. In the following cases an Alternate Street Address layer entry is generated for a Link:

- The Link has more than one Street Name
- The Link has more than one Address Range

Street Layer entries having Num_StNmes > 1 or Num_Ad_Rng > 1 will have a corresponding entry in the Alternate Street Address layer.

Display Characteristics

Object	*Font/Pen/Brush/Symbol*
Lines	NSpen.avp Pen Palette: Highway (0) Boat Ferry (1) Train Ferry (2)
Points	N/A
Fill Patterns	N/A

Attributes and Structure

The Streets layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a street when it is associated with multiple street names and multiple addresses..

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Street Name	St_Name	Char(80)
Feature ID	Feature_ID	Number(10,0)
Street Name Language Code	St_LangCd	Char(3)
Number of Street Names	Num_StNmes	Number(2,0)
Street Name Prefix	St_Nm_Pref	Char(2)
Street Type Before	St_Typ_Bef	Char(30)
Street Name Base	St_Nm_Base	Char(35)
Street Name Suffix	St_Nm_Suff	Char(2)

Attribute	Field Name	Format
Street Type After	St_Typ_Aft	Char(30)
Street Type Attached	St_Typ_Att	Char(1)
Address Type	Addr_Type	Char(1)
Left Side Reference Address	L_RefAddr	Char(10)
Left Side Non-Reference Address	L_NrefAddr	Char(10)
Left Address Scheme	L_AddrSch	Char(1)
Left Address Format	L_AddrForm	Char(1)
Right Side Reference Address	R_RefAddr	Char(10)
Right Side Non-Reference Address	R_NRefAddr	Char(10)
Right Address Scheme	R_AddrSch	Char(1)
Right Address Format	R_AddrForm	Char(1)
Reference End Intersection ID	Ref_In_ID	Number(10,0)
Non-Reference End Intersection ID	Nref_In_ID	Number(10,0)
Number of Shapepoints	N_ShapePnt	Number(10,0)
Functional Class	Func_Class	Char(1)
Speed Category	Speed_Cat	Char(1)
From Reference Speed Limit	Fr_Spd_Lim	Number(5)
Toward Reference Speed Limit	To_Spd_Lim	Number(5)
To Lanes	To_Lanes	Number(2,0)
From Lanes	From_Lanes	Number(2,0)
Enhanced Geometry	Enh_Geom	Char(1)
Lane Category	Lane_Cat	Char(1)
Divider Location	Divider	Char(1)
Direction of Travel	Dir_Travel	Char(1)
Left Area ID	L_Area_ID	Number(10,0)
Right Area ID	R_Area_ID	Number(10,0)
Left Postal Code	L_PostCode	Char(11)
Right Postal Code	R_PostCode	Char(11)
Number of Left Zones	L_NumZones	Number(2,0)
Number of Right Zones	R_NumZones	Number(2,0)
Number of address Ranges	Num_Ad_Rng	Number(2,0)
Access Automobiles	AR_Auto	Char(1)

Attribute	Field Name	Format
Access Buses	AR_Bus	Char(1)
Access Taxis	AR_Taxis	Char(1)
Access Carpools	AR_Carpool	Char(1)
Access Pedestrians	AR_Pedest	Char(1)
Access Trucks	AR_Trucks	Char(1)
Access Through Traffic	AR_Traff	Char(1)
Access Deliveries	AR_Deliv	Char(1)
Access Emergency Vehicles	AR_EmerVeh	Char(1)
Paved	Paved	Char(1)
Private	Private	Char(1)
Frontage Road	Frontage	Char(1)
Bridge	Bridge	Char(1)
Tunnel	Tunnel	Char(1)
Ramp	Ramp	Char(1)
Tollway	Tollway	Char(1)
POI Access Road	PoiAccess	Char(1)
Controlled Access	ContrAcc	Char(1)
Roundabout	Roundabout	Char(1)
Intersection Internal	InterInter	Char(1)
Undefined Traffic Area	UndefTraff	Char(1)
Ferry Type	Ferry_Type	Char(1)
Multiply Digitised	MultiDigit	Char(1)
Maximum Attributes	MaxAttr	Char(1)
Special Traffic Figure	SpecTrFig	Char(1)
Indescribable	Indescrib	Char(1)
Manoeuvre	Manoeuvre	Char(1)
Divider Legal	DividerLeg	Char(1)
In Process Data	InProcData	Char(1)
Full Geometry	Full_Geom	Char(1)
Urban	Urban	Char(1)
Route Type	Route_Type	Char(1)

Attribute	Field Name	Format
Direction On Sign	DirOnSign	Char(1)
Explicatable	Explicatbl	Char(1)
Name on Road Sign	NameOnRdSn	Char(1)
Postal Name	PostalName	Char(1)
Stale Name	StaleName	Char(1)
Vanity Name	VanityName	Char(1)
Junction Name	JunctionNm	Char(1)
Exit Number	ExitName	Char(1)
Scenic Route	Scenic_Rt	Char(1)
Scenic Route Name	Scenic_Nm	Char(1)
To Extended Lanes	To_X_Lanes	Decimal(10,0)
From Extended Lanes	Fr_X_Lanes	Decimal(10,0)
Four-Wheel Drive	FourWheelDr	Char(1)
Coverage Indicator	CoverInd	Char(2)

5.2.6 Alternate Street Address (AltStreets)

The AltStreets (.dbf) files represent the Alternate Streets Address layer.

Display Graphics

The Alternate Street Address layer does not have any graphic objects associated with the data.

Attributes and Structure

The Alternate Street Address layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Street Name	St_Name	Char(80)
Feature ID	Feature_ID	Number(10,0)
Street Name Language Code	St_LangCd	Char(3)
Street Name Prefix	St_Nm_Pref	Char(2)

Attribute	Field Name	Format
Street Type Before	St_Typ_Bef	Char(30)
Street Name Base	St_Nm_Base	Char(35)
Street Name Suffix	St_Nm_Suff	Char(2)
Street Type After	St_Typ_Aft	Char(30)
Street Type Attached	St_Typ_Att	Char(1)
Address Type	Addr_Type	Char(1)
Left Side Reference Address	L_RefAddr	Char(10)
Left Side Non-Reference Address	L_NrefAddr	Char(10)
Left Address Scheme	L_AddrSch	Char(1)
Left Address Format	L_AddrForm	Char(1)
Right Side Reference Address	R_RefAddr	Char(10)
Right Side Non-Reference Address	R_NRefAddr	Char(10)
Right Address Scheme	R_AddrSch	Char(1)
Right Address Format	R_AddrForm	Char(1)
Number of address Ranges	Num_Ad_Rng	Number(2,0)
Route Type	Route_Type	Char(1)
Direction On Sign	DirOnSign	Char(1)
Explicatable	Explicatbl	Char(1)
Name on Road Sign	NameOnRdSn	Char(1)
Postal Name	PostalName	Char(1)
Stale Name	StaleName	Char(1)
Vanity Name	VanityName	Char(1)
Junction Name	JunctionNm	Char(1)
Exit Number	ExitName	Char(1)
Scenic Route Name	Scenic_Name	Char(1)

5.2.7 Railroads (RailRds)

The RailRds (.shp, .shx, .dbf) files represent the Railroads layer. The Railroads layer has a Scale Min/Max of 0/30,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	1 point wide, Black, Standard Pen Palette (22)
Points	N/A
Fill Patterns	N/A

Attributes and Structure

The Railroads layer contains the following attributes. Note that a single segment of a railroad is represented by multiple line or polyline objects when it is associated with multiple railroad names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Railway Name	Railway_Nm	Char(35)
Railway Name Language Code	Lang_Code	Char(3)
Bridge	Bridge	Char(1)
Tunnel	Tunnel	Char(1)

5.2.8 Signs (Signs)

The Signs (.shp, .shx, .dbf) files represent the Signs layer.

Display Graphics

This layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Src_LinkID	Number(10,0)
Destination Link ID	Dst_LinkID	Number(10,0)

Attribute	Field Name	Format
Sign ID	Sign_ID	Number(10,0)
Sequence Number	Seq_Num	Number(4,0)
Exit Number	Exit_Num	Char(8)
Branch Route ID	Br_RteID	Char(20)
Branche Route Direction	Br_RteDir	Char(1)
Sign Text Type	Sign_TxtTp	Char(1)
Sign Text	Sign_Text	Char(60)
Sign Language Code	Lang_Code	Char(3)
Toward Route ID	Tow_RteID	Char(20)
Straight On	Straight_On	Char(1)

5.2.9 Condition/Driving Manoeuvres (Cdms)

The Cdms (.shp, .shx, .dbf) files represent the Condition/Driving Manoeuvres layer.

Display Graphics

This layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition/Driving Manoeuvres layer contains the following attributes. When there are multiple restricted manoeuvre links associated with a condition on a link then multiple records will be found in this layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Condition ID	Cond_ID	Number(10,0)
Condition Type	Cond_Type	Number(5,0)
Condition Value	Cond_Val1	Char(30)
Condition Value 2	Cond_Val2	Char(15)
Condition Value 3	Cond_Val3	Char(30)
Condition Value 4	Cond_Val4	Number(5,0)
End of Link	End_Of_Lk	Char(1)

Attribute	Field Name	Format
AR-Auto	AR_Auto	Char(1)
AR-Bus	AR_Bus	Char(1)
AR-Taxis	AR_Taxis	Char(1)
AR-Carpools	AR_Carpool	Char(1)
AR-Pedestrians	AR_Pedest	Char(1)
AR-Trucks	AR_Trucks	Char(1)
AR-Through Traffic	AR_ThruTr	Char(1)
AR-Deliveries	AR_Deliver	Char(1)
AR-Emergency Vehicles	AR_EmerVeh	Char(1)

5.2.10 Condition/Driving Manoeuvres - Date/Time Modifiers (CdmsDtmod)

The CdmsDtmod (.shp, .shx, .dbf) files represent the Condition/Driving Manoeuvre - Date/Time Modifiers layer.

Display Graphics

The Condition/Driving Manoeuvre - Date/Time Modifiers layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition/Driving Manoeuvre - Date/Time Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Condition ID	Cond_ID	Number(10,0)
Date/Time Modifier (DTM) Type	DtTme_Type	Char(1)
Exclude Date	Excl_Date	Char(1)
From End	FromEnd	Char(1)
Reference Date	Ref_Date	Char(8)
Expiration Date	Exp_Date	Char(8)
Start Time	StartTime	Char(4)

Attribute	Field Name	Format
End Time	EndTime	Char(4)

5.2.11 Condition Modifiers (CndMod)

The Condition Modifiers layer contains information about the restricted access conditions as well as driver alert conditions. The modifier value field may contain a coded value or a value string.

Display Graphics

The Condition Modifiers layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)
Modifier Type	Modifier_Type	Decimal(5,0)
Modifier Value	Modifier_Value	Decimal(100)

5.2.12 Condition Lane Template (CndLn)

The Condition Lane Template layer contains the values of the lane representation for HOV lanes. A row exists in this table only if a lane condition exists. Lane numbering is based on direction of travel with 1 being the innermost lane (left for right-side driving countries such as the US, and right for leftside driving countries such as the UK). Y/N values are only published for the number of actual lanes defined for the specified direction; all other lane columns will be blank.

Display Graphics

The Condition Lane Template layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Lane Template layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)
Lane 1	Lane_1	Char(1)
Lane 2	Lane_2	Char(1)
Lane 3	Lane_3	Char(1)
Lane 4	Lane_4	Char(1)
Lane 5	Lane_5	Char(1)
Lane 6	Lane_6	Char(1)
Lane 7	Lane_7	Char(1)
Lane 8	Lane_8	Char(1)
Lane 9	Lane_9	Char(1)
Lane 10	Lane_10	Char(1)
Lane 11	Lane_11	Char(1)
Lane 12	Lane_12	Char(1)
Lane 13	Lane_13	Char(1)
Lane 14	Lane_14	Char(1)
Lane 15	Lane_15	Char(1)
Lane 16	Lane_16	Char(1)

5.2.13 Condition Lane Traversal (CndLaneTrav)

The Condition Lane Traversal layer contains the lane-lane connectivity associated with a Lane Traversal condition. (The Lane Traversal condition is published in the regular Condition/Driving Maneouvres (CDMS) layer. The standard model (RDM/Maneouvre Links, RDMS layer) is used to publish links involved in the Lane Traversal condition.

Display Graphics

The Condition Lane Traversal layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)

Attribute	Field Name	Format
Source Lane Number	S_Lane_Nr	Decimal(2,0)
Source Travel Direction	S_Dir_Trav	Char(1)
Destination Lane Number	D_Lane_Nr	Decimal(2,0)
Destination Travel Direction	D_Dir_Trav	Char(1)

5.2.14 Restricted Driving Manoeuvres - Manoeuvre Links (Rdms)

The Restricted Driving Manoeuvres – Manoeuvre Links layer contains information about all the manoeuvre links associated with a Condition/Driving Manoeuvre. This layer is essential when working with a Condition/Driving Manoeuvre that includes multiple links (e.g. an access restriction that applies to more than one link when calculating a route). This layer is used for route calculation in conjunction with the Restricted Driving Manoeuvres layer. The table ONLY contains conditions that involve two (2) or more links.

The Rdms (.shp, .shx, .dbf) files represent the Restricted Driving Manoeuvres - Manoeuvre Links layer.

Display Graphics

The Rdms layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Condition ID	Cond_ID	Number(10,0)
Manoeuvre Link ID	Man_LinkID	Number(10,0)
Sequence Number	Seq_Number	Number(4,0)

5.2.15 Traffic (Traffic)

The Traffic (.shp, .shx, .dbf) files represent the Traffic layer.

Display Graphics

The Traffic layer does not have any graphic objects associated with the data.

Attributes and Structure

The Traffic layer contains the following attributes. Note that for countries with multiple providers, there will be links having multiple traffic codes. Using the Location Database Number it is possible to be able to find the set of Traffic Codes for a specific provider. Please refer to the Product Release Notes for information about traffic providers and the values assigned to them.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Traffic Code	Traffic_Cd	Char(10)

5.2.16 Z-Levels (Zlevels)

The Zlevels (.shp, .shx, .dbf) files represent the Z-Levels layer. No labels are produced for geometric points.

Display Graphics

The Z-Levels layer does not have any graphic objects associated with the data.

Attributes and Structure

The Z-Levels layer contains the following attributes. Note that a single intersection is represented by multiple point objects when it connects with multiple line or polyline street segments.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Point Number	Point_Num	Number(4,0)
Node ID	Node_ID	Number(10,0)
Z-Level	Z_Level	Number(2,0)
Intersection	Intrsect	Char(1)
Z-Shape	Dot_Shape	Number(2,0)
Aligned	Aligned	Char(1)

5.2.17 Zones (Zones)

The Zones (.shp, .shx, .dbf) files represent the Zones layer.

Display Graphics

The Zones layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Zone ID	Zone_ID	Number(10,0)
Zone Side	Side	Char(1)

5.2.18 Oceans (Oceans)

The Oceans (.shp, .shx, .dbf) files represent the Oceans layer. The Oceans layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	2 points wide, Black
Points	N/A
Fill Patterns	LightBlue

Attributes and Structure

The Oceans layer contains the following attributes.

Attribute	Field Name	Format
Ocean ID	Polygon_ID	Number(10,0)
Ocean Name	Polygon_Nm	Char(80)

Attribute	Field Name	Format
Ocean Name Language Code	Nm_LangCd	Char(3)
Ocean Description	Feat_Type	Char(40)
Detailed City	Detail_Cty	Char(1)
Admin Feature Code	Feat_Cod	Number(7,0)
Display Class	Disp_Class	Char(1)

5.2.19 Administrative Area Boundaries (1) (Adminbndy1)

The Adminbndy1 (.shp, .shx, .dbf) files represent the Administrative Area Boundaries (1) layer. The Administrative Area Boundaries (1) layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	4 points wide, Black
Points	N/A
Fill Patterns	Solid

Attributes and Structure

The Administrative Area Boundaries (1) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10,0)
Area ID	Area_ID	Number(10)
Admin Area Name	Polygon_Nm	Char(80)
Admin Area Name Language Code	Nm_LangCd	Char(3)
Admin Area Description	Feat_type	Char(40)
Detailed City	Detail_Cty	Char(1)
Admin Feature Code	Feat_Cod	Number(7,0)

5.2.20 Administrative Area Boundaries (2-5) (Adminbndy2/3/4/5)

The Adminbndy2/3/4/5 (.shp, .shx, .dbf) files represent the Administrative Area Boundaries (2/3/4/5) layer. The Administrative Area Boundaries (2/3/4/5) layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	2 points wide, Light Grey
Points	N/A
Fill Patterns	Solid

Attributes and Structure

The Administrative Area Boundaries (2, 3, 4, 5) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10,0)
Area ID	Area_ID	Number(10)
Admin Area Name	Polygon_Nm	Char(80)
Admin Area Name Language Code	Nm_LangCd	Char(3)
Admin Area Description	Feat_type	Char(40)
Detailed City	Detail_Cty	Char(1)
Admin Feature Code	Feat_Cod	Number(7,0)

5.2.21 Administrative Area (AdminArea)

The AdminArea table represents the Administrative Area layer.

Display Graphics

The Administrative Area layer does not have any graphic objects associated with the data.

Attributes and Structure

The Administrative Area contains the following attributes

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10,0)
Area ID	Area_ID	Number(10,0)
Number of Area Ids	Nm_Area_Id	Number(2,0)

5.2.22 Cartographic Country (CartoCountry)

The CartoCountry (.shp, .shx, .dbf) files table represents the Cartographic Country layer. The Cartographic Country layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	2 pixels wide, Solid Red
Points	N/A
Fill Patterns	N/A

5.2.22.1 Attributes and Structure

The Cartographic Country layer contains the following attributes.

Attribute	Field Name	Format
Cartographic Country ID	Link_ID	Number(10,0)
Cartographic Country Left Name	Left_Name	Char(35)
Cartographic Country Left Language Code	L_Nm_LngCd	Char(3)
Cartographic Country Right Name	Right_Name	Char(35)
Cartographic Country Right Language Code	R_Nm_LngCd	Char(3)

Attribute	Field Name	Format
Detailed City	Detailed_City	Char(1)

5.2.23 Cartographic State (CartoState)

The CartoState (.shp, .shx, .dbf) files table represents the Cartographic State layer. The Cartographic State layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	2 pixels wide, Solid Red
Points	N/A
Fill Patterns	N/A

Attributes and Structure

The Cartographic State layer contains the following attributes.

Attribute	Field Name	Format
Cartographic State ID	Link_ID	Number(10,0)
Cartographic State Left Name	Left_Name	Char(35)
Cartographic State Left Language Code	L_Nm_LngCd	Char(3)
Cartographic State Right Name	Right_name	Char(35)
Cartographic State Right Language Code	R_Nm_LngCd	Char(3)
Detailed City	Detailed_City	Char(1)

5.2.24 Waterway Polygons (WaterPoly)

The WaterPoly (.shp, .shx, .dbf) files represent the Waterway Polygons layer. The Waterway layer itself does not have a Scale Min/Max setting.

5.2.25 Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	2 points wide, Solid Blue
Points	N/A
Fill Patterns	Blue

Attributes and Structure

The Waterway Polygons layer contains the following attributes. Note that a Waterway Polygon is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Waterway ID	Polygon_ID	Number(10,0)
Waterway Name	Polygon_Name	Char(80)
Waterway Language Code	Nm_LangCd	Char(3)
Waterway Description	Feat_Type	Char(40)
Detailed City	Detail_Cty	Char(1)
Display Class	Disp_Class	Char(1)

5.2.26 Waterway Segments (WaterSeg)

The WaterSeg (.shp, .shx, .dbf) files represent the Waterway Segments layer. The Waterway Segments layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	2 points wide, Solid Blue
Points	N/A
Fill Patterns	Blue

Attributes and Structure

The Waterway Segments layer contains the following attributes. Note that a Waterway is represented by multiple line, or polyline objects when it has names in multiple languages.

Attribute	Field Name	Format
Waterway ID	Polygon_ID	Number(10,0)
Waterway Name	Polygon_Name	Char(80)
Waterway Language Code	Nm_LangCd	Char(3)
Waterway Description	Feat_Type	Char(40)
Detailed City	Detail_Cty	Char(1)
Admin Feature Code	Feat_Code	Number(7,0)
Display Class	Disp_Class	Char(1)

5.2.27 Building/Landmark Features (Landmark)

The Landmark (.shp, .shx, .dbf) filese represents the Building/Lanmark Features layer. The Building/Landmark Features layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	1 pixel wide, Solid Black
Points	N/A
Fill Patterns	Gray

Attributes and Structure

The Building/Landmark Features layer contains the following attributes. Note that a Building/ Landmark feature is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Building/Landmark ID	Polygon_ID	Number(10,0)
Building/Landmark Name	Polygon_Nm	Char(80)

Attribute	Field Name	Format
Building/Landmark Language Code	Nm_LgCode	Char(3)
Building/Landmark Description	Feat_Type	Char(40)
Detailed City	Detail_City	Char(1)
Admin Feature Code	Feat_Cod	Number(10,0)
Building Height	Height	Number(3,0)

5.2.28 Land Use Features A (LandUseA)

Land Use Features (A) contains polygons that represent various land usage features found within a coverage area. These include Airports, Beaches, Cemeteries, Hospitals, Industrial Complexes, Military Bases, Parks, Park in Water, National Monuments, Public Use Areas, Colonias, Shopping Centres, Sports Complexes, Undefined Traffic Areas, University/Colleges, Woodlands, Colonias, and Neighborhoods.

The Land Use Features A layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	1 point wide, Solid Black
Points	N/A
Fill Patterns	Industrial Complex Standard Fill Palette (26) Shopping Centre Standard Fill Palette (3) Park In Water Standard Fill Palette(Light Blue) All Others Features Solid (1)

Attributes and Structure

The Land Use Features A layer contains the following attributes. Note that a Land Usage is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Land Use ID	Polygon_ID	Number(10,0)
Land Use Name	Polygon_Nm	Char(80)
Land Use Language Code	Nm_LangCd	Char(3)
Land Use Description	Feat_Type	Char(40)
Detailed City	Detail_Cty	Char(1)
Feature Code	Feat_Cod	Number(7,0)
Display Class	Disp_Class	Char(1)

5.2.29 Land Use Features B (LandUseB)

The LandUseB (.shp, .shx, .dbf) files represent the Land Use Features B layer. The features included in this layer are Aircraft Roads, Golf Courses, Native American Reservations, and Pedestrian Zones.

The Land Use Features B layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	1 point wide, Black
Points	N/A
Fill Patterns	Aircraft Roads Standard Fill Palette (24) All Others Features Solid (1)

Attributes and Structure

The Land Use Features B layer contains the following attributes. Note that a Land Usage is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Land Use ID	Polygon_ID	Number(10,0)
Land Use Name	Polygon_Nm	Char(80)
Land Use Language Code	Nm_LangCd	Char(3)
Land Use Description	Feat_Type	Char(40)
Detailed City	Detail_Cty	Char(1)
Feature Code	Feat_Cod	Number(7,0)

5.2.30 Islands (Islands)

The Islands (.shp, .shx, .dbf) files represent the Islands layer. The Islands layer itself does not have a Scale Min/Max setting.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	1 point wide, LightGrey
Points	N/A
Fill Patterns	LightWheat

Attributes and Structure

The Islands layer contains the following attributes.

Attribute	Field Name	Format
Island ID	Polygon_ID	Number(10,0)
Island Name	Polygon_Nm	Char(80)
Island Name Language Code	Nm_LangCd	Char(3)
Island Description	Feat_Type	Char(40)
Detailed City	Detail_Cty	Char(1)
Admin Feature Code	Feat_Cod	Number(7,0)

5.2.31 Named Places (NamedPlc)

The NamedPlc (.shp, .shx, .dbf) files represent the Named Places layer. The Named Places layer has a Scale Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (16)
Fill Patterns	N/A

Attributes and Structure

The Named Places layer contains the following attributes. Note that a Named Place is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Named Place Name	Poi_Name	Char(35)
Named Place Name Language Code	Poi_LangCd	Char(3)
Named Place Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)

Attribute	Field Name	Format
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Population	Population	Number(10,0)
Capital	Capital	Char(1)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.32 Hamlets (NTC_Hamlet)

The Hamlet (.shp, .shx, .dbf) files represent the Hamlets layer. The Hamlets layer has a Scale Min/ Max of 0/6,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (63)
Fill Patterns	N/A

Attributes and Structure

The Hamlets layer contains the following attributes. Note that a hamlet is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Hamlet Name	Poi_Name	Char(35)
Hamlet Name Language Code	Poi_LangCd	Char(3)
Hamlet Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.33 Hospitals (hospital)

The Hospital (.shp, .shx, .dbf) files represent the Hospitals layer. The Hospitals layer has a Scale Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette: (29)  (67)
Fill Patterns	N/A

Attributes and Structure

The Hospitals layer contains the following attributes. Note that a Hospital is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Hospital Name	Poi_Name	Char(35)
Hospital Name Language Code	Poi_LangCd	Char(3)
Hospital Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)

Attribute	Field Name	Format
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.34 Parks and Recreation (ParkRec)

The Parks and Recreation layer contains Amusement Parks, Golf Courses, Museums, Sports Complexes, Marina, Public Sport Airports, Bowling Centres, Park/Recreation areas, Casinos, Sports Centres, and Ice Skating Rinks within the NAVSTREETS coverage area.

Amusement Parks These include locally known parks that contains rides or other entertainment that may be based on a central theme.

Golf Courses These include all private and public golf courses.

Museums These include museums of regional importance that are open to the public.

Sports Complexes These include all multi-use indoor arenas that seat more than 1,000 people, multi-use outdoor arenas that seat more than 10,000 people, and race tracks.

Marinas These are specific to yacht harbours and public docking facilities. (North America only.)

Public Sport Airports These include all airfields designated for recreational purposes (e.g. to fly hot air balloons, use gliders, get flying lessons, fly private airplanes). This category is exclusive to Europe.

Bowling Centres These include major bowling centres that are regionally known and have more than six bowling alleys. This category is exclusive to Europe.

Park/ Recreation Areas These include areas of public land that are preserved and maintained for recreational use (public parks and recreation parks).

Casinos IIn the United States, these include any variety of gambling and gaming establishments ranging from the large casinos in Las Vegas to riverboat gambling and card rooms that draw regionally. In Europe and Canada, NAVSTREETS only includes casinos that are licensed by the government.

Sports Centres These include all combined sport centres, swimming and tennis facilities, and famous public fitness centres that also offer other facilities like sauna and massage. This category is exclusive to Europe.

Ice Skating Rinks These include all indoor and outdoor facilities designed for all types of ice skating. This category is exclusive to Europe.

The ParkRec (.shp, .shx, .dbf) files represent the Parks and Recreation layer. The Parks and Recreation layer has a Scale Min/Max of 0/18000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (1), (35), (52), (44), (25), (5), (32), (12), (50), (53)
Fill Patterns	N/A

Attributes and Structure

The Parks and Recreation layer contains the following attributes. Note that a park/recreation facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Park/Recreation Name	Poi_Name	Char(35)
Park/Recreation Name Language Code	Poi_LangCd	Char(3)

Attribute	Field Name	Format
Park/Recreation Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.35 Transportation Hubs (TranHubs)

The Transportation Hubs layer contains all Airports, Bus Stations, Train Stations, and Ferry Terminals within the NAVSTREETS coverage area.

Airports These include all national public airports in Europe (more than 300,000 passengers per year), all FAA certified airports in the United States, and all public airports in Canada.

Bus Stations These are facilities that function as a hub for a bus service network, including those that provide park and ride facilities, and long distance and/or inter-city bus service.

Train Stations These include all facilities that function as a hub for passengers and goods traveling between metropolitan areas along a railway network.

Ferry Terminals This category is specific to structures established and maintained by ferry services that transport passengers and automotive vehicles by rail or water.

Public Transit Stop These are points where passengers can board a public transportation vehicle.

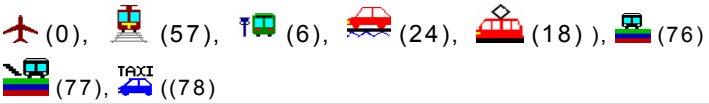
Public Transit Access These facilities represent multiple entrances for one Public Transit Stop.

Taxi Stand These are designated areas for queuing, loading and unloading taxis.

Commuter Rail Stations These are facilities established to provide inter-city and commuter rail transportation. This includes all metro stations in the UK.

The TransHubs (.shp, .shx, .dbf) files represent the Transportation Hubs layer. The Transportation Hubs layer has a Min/Max Scale Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (0), (57), (6), (24), (18)), (76) (77), TAXI ((78)
Fill Patterns	N/A

Attributes and Structure

The Transportation Hubs layer contains the following attributes. Note that a transportation hub is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)

Attribute	Field Name	Format
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Airport Type	Airpt_Type	Char(1)
Transit Access Level	T_Acc_Lev	Char(1)
Transit Access Type	T_Acc_Type	Char(1)
Transit Access Method	T_Acc_Meth	Char(1)

5.2.36 Travel Destinations (TravDest)

The TravDest (.shp, .shx, .dbf) files represent the Travel Destinations layer. The Travel Destinations layer has a Scale Min/Max of 0/18,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (30),  (56),  (55),  (19),  (58),  (51),  (46),  (28),  (45)
Fill Patterns	N/A

Attributes and Structure

The Travel Destination layer contains the following attributes. Note that a travel destination is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)

Attribute	Field Name	Format
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Rest Area Type	Rest_Type	Char(30)

5.2.37 Shopping (Shopping)

The Shopping (.shp, .shx, .dbf) files represent the Shopping layer. The Shopping layer has a set to a Scale Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette  (49),  (26),  (64)
Fill Patterns	N/A

Attributes and Structure

The Shopping layer contains the following attributes. Note that a shopping facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)

Attribute	Field Name	Format
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.38 Restaurants (Restrnts)

The Restrnts (.shp, .shx, .dbf) files represent the Restaurants layer. The Restaurants layer has a Scale Min/Max of 0/18,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette  (47)
Fill Patterns	N/A

Attributes and Structure

The Restaurant layer contains the following attributes. Note that a restaurant is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Cuisine Type	Food_Type	Char(35)
Vanity City	Van_City	Char(35)

Attribute	Field Name	Format
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.39 Entertainment (Entertn)

The Entertn (.shp, .shx, .dbf) files represent the Entertainment layer. The Entertainment layer has a Scale Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette  (21),  (39),  (13),  (66)
Fill Patterns	N/A

Attributes and Structure

The Entertainment layer contains the following attributes. Note that a entertainment facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)

Attribute	Field Name	Format
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.40 Auto Maintenance, Service, and Petrol (AutoSvc)

The AutoSvc (.shp, .shx, .dbf) files represent the Auto Maintenance, Service, and Petrol layer. The Auto Maintenance, Service, and Petrol layer has a Zoom Min/Max of 0/18,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette  (40),  (11),  (10),  (9)  (62)
Fill Patterns	N/A

Attributes and Structure

The Auto Maintenance, Service, and Petrol layer contains the following attributes. Note that auto maintenance, service, and petrol facilities are represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)

Attribute	Field Name	Format
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Open 24 Hours	Open_24	Char(1)
Diesel	Diesel	Char(1)

5.2.41 Financial Solutions (FinInsts)

The FinInsts (.shp, .shx, .dbf) files represent the Financial Institutions layer. The Financial Institutions layer has a Zoom Min/Max of 0/18,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette  (3),  (2)
Fill Patterns	N/A

Attributes and Structure

The Financial Institutions layer contains the following attributes. Note that a financial institution is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)

Attribute	Field Name	Format
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.42 Business Facilities (Business)

The Business (.shp, .shx, .dbf) files represent the Business Facilities layer. The Business Facilities layer has a Zoom Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette  (7),  (70)
Fill Patterns	N/A

Attributes and Structure

The Business Facilities layer contains the following attributes. Note that a business facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)

Attribute	Field Name	Format
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.43 Community Service Centres (CommSvc)

The Community Service Centres layer contains all civic/community centres, city halls, court houses, post offices, and police stations within the NAVSTREETS coverage area.

Civic/ Community Centre These include all civic or community centres (public buildings used for community events). In Europe, this is specific to civic or community centres with a regional function.

City Hall These include the city hall of each municipality or settlement within the NAVSTREETS coverage area. (North America only.)

Court House These include court houses at any level of government. (North America only.)

Police Station These include any police stations within the NAVSTREETS coverage area. (North America only.)

Place of Worship These include all places of worship within the NAVSTREETS coverage area.

Post Office These include all facilities which provide mail services.

The CommSvc (.shp, .shx, .dbf) files represent the Community Service Centres layer. The Community Service Centre layer has a Zoom Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (17),  (15),  (20),  (41),  (65),  (69),  (68)
Fill Patterns	N/A

Attributes and Structure

The Community Service Centres layer contains the following attributes. Note that a community service centre is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Building Type	Bld_Type	Char(30)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)

Attribute	Field Name	Format
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.44 Educational Institutions (EduInsts)

The EduInsts (.shp, .shx, .dbf) files represent the Educational Institutions layer. The Educational Institutions layer has a Scale Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (48),  (31),  (27)
Fill Patterns	N/A

Attributes and Structure

The Educational Institutions layer contains the following attributes. Note that an educational institution is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)

Attribute	Field Name	Format
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.45 Parking (Parking)

The Parking (.shp, .shx, .dbf) files represent the Parking layer. The Parking layer has a Scale Min/ Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (38), (37), (43)
Fill Patterns	N/A

Attributes and Structure

The Parking layer contains the following attributes. Note that a parking facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)

Attribute	Field Name	Format
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.46 Border Crossing (BordCross)

The BordCross (.shp, .shx, .dbf) files represent the Border Crossing layer. The Border Crossing layer has a Scale Min/Max of 0/95,000.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	NSmarker.avp Marker Palette:  (4)
Fill Patterns	N/A

Attributes and Structure

The Border Crossing layer contains the following attributes. Note that a border crossing is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	Poi_LangCd	Char(3)

Attribute	Field Name	Format
Facility Name Type	Poi_NmType	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCd	Char(3)
Side	Poi_St_Sd	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Number(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)
Actual Address	Act_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.47 Miscellaneous Categories (MiscCategories)

The Miscellaneous Categories layer contains facilities within the NAVSTREETS coverage area that cannot be categorized into any other layer.

The MiscCategories table represents the Miscellaneous Categories layer.

The Miscellaneous Categories layer has a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Lines	N/A
Points	 (71)
Fill Patterns	N/A

Attributes and Structure

The Miscellaneous Categories layer contains the following attributes. Note that a miscellaneous POI is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer..

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Fac_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCd	Char(3)
Facility Name Type	Poi_NmTyp	Char(1)
Street Number	Poi_St_Num	Char(10)
Street Name	St_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Acc_Type	Char(1)
Phone Number	Ph_Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	Nat_Import	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicin	Char(1)
Number Parents	Num_Parent	Decimal(5,0)
Number Children	Num_Child	Decimal(5,0)
Vanity City	Van_City	Char(35)

Attribute	Field Name	Format
Actual Address	Actl_Addr	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.2.48 Point Addresses (PntAddr)

The Point Addresses layer contains the individual house numbers for a link, represented as point objects.

The PntAddr table represents the Point Addresses layer.

Display Graphics

The Point Addresses layer has geometry associated with each point, but it does not have any graphic objects associated with the data.

Attributes and Structure

The Point Addresses layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Point Address ID	Pt_Addr_ID	Number(10,0)
Side	Side	Char(1)
Feature ID	Featur_ID	Decimal(10,0)
Address	Address	Char(10)

5.2.49 Point Of Interest Association (PoiAssoc)

The PoiAssoc table represents the Point Of Interest Association layer.

Display Graphics

The Point Of Interest Association layer does not have any graphic objects associated with the data.

Attributes and Structure

The Point Of Interest Association contains the following attributes.

Attribute	Field Name	Format
Parent ID	Parent_ID	Number(10,0)
Child ID	Child_ID	Number(10,0)
Assoc Type	Assoc_Type	Char(1)

5.2.50 Aggregated Feature (AggrFeature)

The Aggregated Feature layer contains general aggregation (grouping) of polygonal features used in the context of City Model data: Grouped Structures or Grouped Complexes.

The AggrFeature table represents the Aggregated Feature layer.

Display Graphics

The Aggregated Feature layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
Aggregated Feature Description	Feat_Type	Char(40)
Aggregation Type	Aggr_Type	Number(2,0)
Aggregated Feature Name	Aggr_Name	Char(35)
Aggregated Feature Language Code	Nm_LangCd	Char(3)
Associated POI ID	POI_ID	Number(10,0)
Number of Components	Num_Comp	Number(5,0)

Attribute	Field Name	Format
Feature Code	Feat_Code	Number(7,0)
Number of Attachments	Num_Attach	Number(5,0)

5.2.51 Aggregated Feature Component (AggrFeatComp)

The Aggregated Feature Component layer defines the components included in an Aggregated Feature.

The AggrFeatComp table represents the Aggregated Feature Component layer.

Display Graphics

The Aggregated Feature Component layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature Component layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
Sequence Number	Seq_Num	Number(5,0)
Component Type	Comp_Type	Char(2)
Component ID	Comp_ID	Number(10,0)

5.2.52 Aggregated Feature File Association (AggrFeatFile)

The Aggregated Feature File Association layer defines the association of auxiliary files to an Aggregated Feature. The files are provided as auxiliary data outside the NAVSTREETS structure.

The AggrFeatFile table represents the Aggregated Feature File Association layer.

Display Graphics

The Aggregated Feature File Association layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature File Association layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
File Type	File_Type	Number(2,0)
Attachment Type	Att_Type	Char(3)
File Name	File_Name	Char(150)

5.2.53 POI File Association (PoiFileAssoc)

The POI File Association layer defines the association of auxiliary files to a POI. The files are provided as auxiliary data outside the NAVSTREETS structure.

The PoiFileAssoc table represents the POI File Association layer.

Display Graphics

The POI File Association layer does not have any graphic objects associated with the data.

Attributes and Structure

The POI File Association layer contains the following attributes.

Attribute	Field Name	Format
POI ID	POI_ID	Number(10,0)
File Type	File_Type	Number(2,0)
Attachment Type	Att_Type	Char(3)
File Name	File_Name	Char(150)

5.2.54 Actual POI Location (ActPOILoc)

The Actual POI Location layer defines the actual position of a POI. Display coordinates are floating coordinates not positioned on any existent road network geometry. The files are provided as auxiliary data outside the NAVSTREETS structure.

Display Graphics

The Actual POI Location layer does not have any graphic objects associated with the data.

Attributes and Structure

The Actual POI Location contains the following attributes.

Attribute[1]	Field Name	Format
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5,0)

1. A POI facility is represented by multiple point objects when it has names in multiple languages. The field Facility Type should be used to refer each entry in this layer to the correct main POI Layer. The POI ID should then be used to retrieve the POI Name in the main POI layer.

5.2.55 Risk Prone Area (RiskArea)

The Risk Prone Area layer contains polygons representing risk prone areas. The risks can include hurricanes, tornados, etc. This layer can aide in showing evacuation routes in the event of a natural disaster. This layer currently supports hurricane prone areas only.

The RiskArea table represents the Risk Prone Area layer.

The Risk Prone Area layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, Solid Black
Points	N/A
Fill Patterns	Light orange color for hurricane prone areas

Attributes and Structure

The Risk Prone Area layer contains the following attributes.

Attribute	Field Name	Format
Polygon ID	Polygon_ID	Number(10,0)
Polygon Name	Polygon_Nm	Char(35)
Language Code	Nm_LangCd	Char(3)
Feature Description	Feat_Type	Char(40)
Detailed City	Detail_Cty	Char(1)
Admin Feature Code	Feat_Cod	Number(10,0)
Severity Rating	Sev_Rating	Char(2)

5.2.56 Metadata - Reference Classes (MtdRef)

The MtdRef (.shp, .shx, .dbf) files represent the Metadata - Reference Classes layer.

Display Graphics

The Metadata - Reference Classes layer does not have any graphic objects associated with the data.

Reference Class Descriptions

The Metadata - Reference Classes layer describes the following Reference Classes.

Name	Description/Attribute
AANAMTYP	Administrative Area Name Type
ADDRFMT	Address Format
ADDRSCH	Address Scheme
ADDRTYPE	Address Type
BEARING	Direction of Travel
CHAINID	Chain ID
CONDTYPE	Condition Type
CURRTYPE	Currency Type
DATETYPE	Date Type
DATUM	World Geodetic System of 1984
DIRSIGN	Direction on Sign

Name	Description/Attribute
DIVLOC	Divider Location
DRIVSIDE	Driving Side
FACILITY	Facility Type
FEATURE	Feature Type
FUNCLASS	Function Class
HSENBFMT	House Number Format
LANECAT	Lane Category
LANGCODE	Language Code
LINKEND	Link End
POIACTYP	POI Access Type
POISIDE	POI Side
PONAMTYP	POI Name Type
PREFSUFF	Prefix/Suffix Street Type
RTETYPE	Route Type
SPEEDCAT	Speed Category
STRTYPE[1]	Street Type
TEXTTYPE	Sign Text Type
UOM	Unit of Measure
ZNNAMTYP	Zone Name Type
ZONETYPE	Zone Type

1. The STRTYPE reference class has different formats depending upon European or North American data. For European data, the STREET TYPE is displayed as a full name, thus the code is actually the full name and the description is the abbreviation. The reverse is true for North America.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Reference Class	Ref_Class	Char(10)
Code	Code	Char(12)
Description	Descript	Char(40)

Attribute	Field Name	Format
Language Code	Lang_Code	Char(3)

5.2.57 Metadata - Administrative Area (MtdArea)

The MtdArea (.shp, .shx, .dbf) files represent the Metadata - Administrative Area layer.

Display Graphics

The Metadata - Administrative Area layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Area ID	Area_ID	Number(10,0)
Area Code 1	AreaCode_1	Number(5,0)
Area Code 2	AreaCode_2	Number(5,0)
Area Code 3	AreaCode_3	Number(5,0)
Area Code 4	AreaCode_4	Number(5,0)
Area Code 5	AreaCode_5	Number(5,0)
Area Code 6	AreaCode_6	Number(5,0)
Area Code 7	AreaCode_7	Number(5,0)
Administrative Level	Admin_Lvl	Number(1,0)
Area Name	Area_Name	Char(35)
Area Name Language Code	Lang_Code	Char(3)
Area Name Type	Area_Type	Char(1)
Government Code	Govt_Code	Number(10,0)

5.2.58 Metadata - Zone Records (MtdZoneRec)

The MtdZoneRec (.shp, .shx, .dbf) files represent the Metadata - Zone Records layer.

Display Graphics

The Metadata - Zone Records layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Zone ID	Zone_ID	Number(10,0)
Zone Name	Zone_Name	Char(35)
Language Code	Lang_Code	Char(3)
Name Type	Zone_NmType	Char(1)
Zone Type	Zone_Type	Char(2)
Area ID	Area_ID	Number(10,0)

5.2.59 Metadata - File Identification (MtdFileId)

The MtdFileId (.shp, .shx, .dbf) files represent the Metadata - File Identification layer.

Display Graphics

The Metadata - Field Identification layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Copyright	Copyright	Char(52)
SIF+ Standard Creation Date	CreatDate	Number(6,0)
Database Version	Db_Version	Char(5)
SIF+ Standard Creation Time	CreatTime	Number(6,0)
GIS Software Version	Mi_Sw_Ver	Char(5)
GIS File Version	Mi_FF_Ver	Char(5)
Requested Area	Req_Area	Char(30)

Attribute	Field Name	Format
DNDC Region	Region_ID	Char(5)
Datum	Datum	Char(5)

5.2.60 Metadata - Country Reference (MtdCntryRef)

The MtdCntryRef (.shp, .shx, .dbf) files represent the Metadata - Country Reference layer.

Display Graphics

The Metadata - Country Reference layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Government Code	Govt_Code	Number(10,0)
Unit of Measure	UntMeasure	Char(1)
Maximum Admin Level	AdminLevel	Number(1,0)
Currency Precision	Precision	Number(1,0)
House Number Format(	HseNbrForm	Char(1)
Driving Side	Driving_Sd	Char(1)
Currency Type	Cur_Type	Char(3)
Phone Country Code	CntryCode	Char(3)
AALevel 1 Feature Type	FeatType1	Number(7,0)
AALevel 2 Feature Type	FeatType2	Number(7,0)
AALevel 3 Feature Type	FeatType3	Number(7,0)
AALevel 4 Feature Type	FeatType4	Number(7,0)
AALevel 5 Feature Type	FeatType5	Number(7,0)
AALevel 6 Feature Type	FeatType6	Number(7,0)
AALevel 7 Feature Type	FeatType7	Number(7,0)
AALevel 1 Address Flag	AddrFlag1	Char(1)
AALevel 2 Address Flag	AddrFlag2	Char(1)

Attribute	Field Name	Format
AALevel 3 Address Flag	AddrFlag3	Char(1)
AALevel 4 Address Flag	AddrFlag4	Char(1)
AALevel 5 Address Flag	AddrFlag5	Char(1)
AALevel 6 Address Flag	AddrFlag6	Char(1)
AALevel 7 Address Flag	AddrFlag7	Char(1)
Admin Area 1 Description	Descript1	Char(18)
Admin Area 2 Description	Descript2	Char(18)
Admin Area 3 Description	Descript3	Char(18)
Admin Area 4 Description	Descript4	Char(18)
Admin Area 5 Description	Descript5	Char(18)
Admin Area 6 Description	Descript6	Char(18)
Admin Area 7 Description	Descript7	Char(18)

5.2.61 Metadata – Compound Reference (MtdCmpRef)

The Metadata - Compound Reference layer contains description information for the access restriction (HOV) condition modifiers. The MtdCmpRef table represents the Metadata – Compound Reference layer.

Display Graphics

The Metadata – Compound Reference layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Modifier Type	Modifier_Type	Decimal(10,0)
Modifier Value	Modifier_Value	Decimal(10,0)
Modifier Type Description	ModTypeDesc	Char(40)
Modifier Value Description	ModValDesc	Char(40)
Language Code	LangCode	Char(3)

Attribute	Field Name	Format
Code	Code	Char(8)

5.2.62 Empty Layers Note

Some layers can and will be empty. This will vary depending upon the coverage area and the size of the coverage area for the product. The following layers should always contain data:

MtdCntryRef

MtdArea

MtdFileid

MtdRef

MtdZoneRec

MtdZone

Streets

Zlevels

Note: Layers such as Waterwys, ntc_Adminbndy3, Adminbndy4, and Majhwys; could potentially be empty, but this is highly unlikely unless the size of the dataset size is extremely small.

(This page intentionally left blank)

5.3 MapInfo

5.3.1 Major Highways (MajHwys)

The MajHwys table represents the Major Highways layer. Major Highways has a Zoom Min/Max of 0/150 miles (0/241 kilometers). The Label Zoom Min/Max is 0/40 miles (0/64 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	2 pixels wide, Solid Red
Line Pattern	Roads – pattern# 2 Boat ferries – pattern# 111 Rail ferries – pattern# 118

Attributes and Table Structure

The Major Highways layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a major highway when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Highway Name	Highway_Name	Char(80)
Highway Name Language Code	Lang_Code	Char(3)
Functional Class	Func_Class	Char(1)
Route Type	Route_Type	Char(1)
Direction On Sign	DirOnSign	Char(1)
Boat Ferry	BoatFerry	Char(1)
Rail Ferry	RailFerry	Char(1)

5.3.2 Major Highway Shields (MajHwyShield)

The MajHwyShield table represents the Major Highway Shields layer. The Major Highway Shields layer has a Zoom Min/Max of 0/40 miles (0/64 kilometers). The Label Zoom Min/Max is 0/40 miles (0/64 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Points	 Inte-32.bmp,  StShield.bmp,  Circle.bmp  1bont324.bmp,  2ont324.bmp,  3ont324.bmp
Fill Patterns	N/A

Attributes and Structure

The Major Highway Shields layer contains the following attributes. Note that multiple point objects represent a Major Highway Shield icon when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Highway Name	Highway_Name	Char(80)
Highway Name Language Code	Lang_Code	Char(3)
Direction On Sign	DirOnSign	Char(1)

5.3.3 Secondary Highways (SecHwys)

The SecHwys table represents the Secondary Highways layer. The Secondary Highways layer has a Zoom Min/Max of 0/30 miles (0/48 kilometers). The Label Zoom Min/Max is 0/15 miles (0/24 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	2 pixels wide, Solid Blue
Line Pattern	Roads – pattern# 2 Boat ferries – pattern# 111 Rail ferries – pattern# 118

Attributes and Structure

The Secondary Highways layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a secondary highway when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Highway Name	Highway_Name	Char(80)
Highway Name Language Code	Lang_Code	Char(3)
Functional Class	Func_Class	Char(1)
Route Type	Route_Type	Char(1)
Direction On Sign	DirOnSign	Char(1)
Boat Ferry	BoatFerry	Char(1)
Rail Ferry	RailFerry	Char(1)

5.3.4 Secondary Highway Shields (SecHwyShield)

The SecHwyShield table represents the Secondary Highway Shields layer. The Secondary Highway Shields layer has a Zoom Min/Max of 0/40 miles (0/64 kilometers). The Label Zoom Min/Max is 0/40 miles (0/64 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Points	 Inte-32.bmp,  StShield.bmp,  Circle.bmp  1bont324.bmp,  2ont324.bmp,  3ont324.bmp
Fill Patterns	N/A

Attributes and Structure

The Secondary Highway Shields layer contains the following attributes. Note that multiple point objects represent a Secondary Highway Shield icon when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Highway Name	Highway_Name	Char(80)
Highway Name Language Code	Lang_Code	Char(3)
Direction On Sign	DirOnSign	Char(1)

5.3.5 Streets (Streets)

The Streets table represents the Streets layer. The Streets layer has a Zoom Min/Max of 0/12 miles (0/19 kilometers). The Label Zoom Min/Max is 0/4 miles (0/6 kilometers).

Note: The Streets layer contains a 'Unique' clause that helps speed up the search on a Street_Name within the Streets table (especially when there are duplicate street names in the table). The search is performed by executing the 'Find' command from within MapInfo Professional's menu option 'Query'. This feature is useful for Geocoding purposes.

Specifying a column in the 'Unique' clause for the Streets.mif file results in the creation of two additional tables in the Streets layer.

For example:

Streets.TAB Contains all the columns and can be indexed only by the Street_Name.

Streets1.TAB Contains all the columns with the exception of the Street_Name column (since it is specified as 'Unique'), and another column called 'MI_refnum' that contains a

reference number for each record. This reference number serves as a link between the Streets2.TAB and Streets1.TAB.

Streets2.TAB Contains only the Street_Name column and the 'MI_refnum' column.

The Streets1.TAB file also must be opened to add additional indices to the Streets table. If another column such as the 'Link_ID' was specified in the 'Index' clause within the MIF file (apart from searching the Streets.TAB table by the Street_Name), the search must be performed on the Streets1.TAB. This is because MapInfo Professional does not allow the user to perform the search by another index (since it was not specified in the 'Unique' clause) in the Streets.TAB table.

An Alternate Street Address table exists to model alternate names/addresses for Street Links. This table is non-geometrical, and thereby eliminates the duplicate geometry present in the current Streets layer.

Certain Street Layer entries will have a corresponding Alternate Street Address layer entry. In the following cases an Alternate Street Address layer entry is generated for a Link:

- The Link has more than one Street Name
- The Link has more than one Address Range

Street Layer entries having Num_StNames > 1 or NumAddrRanges > 1 will have a corresponding entry in the Alternate Street Address layer.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, Solid Black
Points	N/A
Line Pattern	Roads – pattern# 191 Boat ferries – pattern# 111 Rail ferries – pattern# 118

Attributes and Structure

The Streets layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a street when it is associated with multiple street names and contains multiple address ranges..

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Street Name	Street_Name	Char(80)
Feature ID	Feature_Id	Decimal(10,0)
Street Name Language Code	St_LangCode	Char(3)
Number of Street Names	Num_StNames	Decimal(2,0)
Street Name Prefix	StNm_Pref	Char(2)
Street Type Before	StType_Before	Char(30)
Street Name Base	StNm_Base	Char(35)
Street Name Suffix	StNm_Suff	Char(2)
Street Type After	StTyp_After	Char(30)
Street Type Attached	StType_Attached	Char(1)
Address Type	Address_Type	Char(1)
Left Side Reference Address	Left_RefAddr	Char(10)
Left Side Non-Reference Address	Left_NonRefAddr	Char(10)
Left Address Scheme	Left_AddrScheme	Char(1)
Left Address Format	Left_AddrFormat	Char(1)
Right Side Reference Address	Right_RefAddr	Char(10)
Right Side Non-Reference Address	Right_NonRefAddr	Char(10)
Right Address Scheme	Right_AddrScheme	Char(1)
Right Address Format	Right_AddrFormat	Char(1)
Reference End Intersection ID	Ref_Intrsect_ID	Decimal(10,0)
Non-Reference End Intersection ID	Nref_Intrsect_ID	Decimal(10,0)
Number of Shapepoints	Num_ShapePoints	Decimal(10,0)
Functional Class	Func_Class	Char(1)
Speed Category	Speed_Cat	Char(1)
From Reference Speed Limit	FromRefSpeedLimit	Decimal(5,0)
Toward Reference Speed Limit	TowardsRefSpeedLimit	Decimal(5,0)
To Lanes	To_Lanes	Decimal(2,0)
From Lanes	From_Lanes	Decimal(2,0)

Attribute	Field Name	Format
Enhanced Geometry	Enhanced_Geometry	Char(1)
Lane Category	Lane_Cat	Char(1)
Divider Location	Divider	Char(1)
Direction of Travel	Dir_Of_Travel	Char(1)
Left Area ID	L_Area_ID	Decimal(10,0)
Right Area ID	R_Area_ID	Decimal(10,0)
Left Postal Code	L_PostCode	Char(11)
Right Postal Code	R_PostCode	Char(11)
Number of Left Zones	Left_NumZones	Decimal(2,0)
Number of Right Zones	Right_NumZones	Decimal(2,0)
Access Automobiles	AR_Auto	Char(1)
Access Buses	AR_Bus	Char(1)
Access Taxis	AR_Taxis	Char(1)
Access Carpools	AR_Carpools	Char(1)
Access Pedestrians	AR_Pedestrians	Char(1)
Access Trucks	AR_Trucks	Char(1)
Access Through Traffic	AR_ThroughTraffic	Char(1)
Access Deliveries	AR_Deliveries	Char(1)
Access Emergency Vehicles	AR_EmerVeh	Char(1)
Paved	Paved	Char(1)
Private	Private	Char(1)
Frontage Road	Frontage	Char(1)
Bridge	Bridge	Char(1)
Tunnel	Tunnel	Char(1)
Ramp	Ramp	Char(1)
Tollway	Tollway	Char(1)
POI Access Road	PoiAccess	Char(1)
Controlled Access	ControlledAccess	Char(1)
Roundabout	Roundabout	Char(1)
Intersection Internal	IntersectionInternal	Char(1)

Attribute	Field Name	Format
Undefined Traffic Area	UndefTrafficArea	Char(1)
Boat Ferry	BoatFerry	Char(1)
Rail Ferry	RailFerry	Char(1)
Multiply Digitised	MultiDigitized	Char(1)
Maximum Attributes	MaxAttr	Char(1)
Special Traffic Figure	SpecialTrafficFigure	Char(1)
Indescribable	Indescribable	Char(1)
Manoeuvre	Manoeuvre	Char(1)
Divider Legal	DividerLegal	Char(1)
In Process Data	InProcessData	Char(1)
Full Geometry	FullGeometry	Char(1)
Urban	Urban	Char(1)
Route Type	Route_Type	Char(1)
Direction On Sign	DirOnSign	Char(1)
Explicatable	Explicatable	Char(1)
Name on Road Sign	NameOnRoad Sign	Char(1)
Postal Name	PostalName	Char(1)
Stale Name	StaleName	Char(1)
Vanity Name	VanityName	Char(1)
Junction Name	JunctionName	Char(1)
Exit Number	ExitName	Char(1)
Number Of Address Ranges	NumAddrRanges	Decimal(2,0)
Scenic Route	Scenic_Route	Char(1)
Scenic Route Name	Scenic_Name	Char(1)
To Extended Lanes	To_X_Lanes	Decimal(10,0)
From Extended Lanes	Fr_X_Lanes	Decimal(10,0)
Four-Wheel Drive	FourWheelDr	Char(1)
Coverage Indicator	CoverInd	Char(2)

5.3.6 Alternate Street Address (AltStreets)

The AltStreets (.dbf) files represent the Alternate Streets Address layer.

Display Graphics

The Alternate Street Address layer does not have any graphic objects associated with the data.

Attributes and Structure

The Alternate Street Address layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Street Name	St_Name	Char(80)
Feature ID	Feature_ID	Decimal(10,0)
Street Name Language Code	St_LangCode	Char(3)
Street Name Prefix	StNm_Pref	Char(2)
Street Type Before	StType_Before	Char(30)
Street Name Base	StNm_Base	Char(35)
Street Name Suffix	StNm_Suff	Char(2)
Street Type After	StTyp_After	Char(30)
Street Type Attached	StType_Attached	Char(1)
Address Type	Address_Type	Char(1)
Left Side Reference Address	Left_RefAddr	Char(10)
Left Side Non-Reference Address	Left_NonRefAddr	Char(10)
Left Address Scheme	Left_AddrScheme	Char(1)
Left Address Format	Left_AddrFormat	Char(1)
Right Side Reference Address	Right_RefAddress	Char(10)
Right Side Non-Reference Address	Right_NRefAddr	Char(10)
Right Address Scheme	Right_AddrScheme	Char(1)
Right Address Format	Right_AddrFormat	Char(1)
Route Type	Route_Type	Char(1)
Direction On Sign	DirOnSign	Char(1)
Explicatable	Explicatable	Char(1)
Name on Road Sign	NameOnRoad Sign	Char(1)

Attribute	Field Name	Format
Postal Name	PostalName	Char(1)
Stale Name	StaleName	Char(1)
Vanity Name	VanityName	Char(1)
Junction Name	JunctionName	Char(1)
Exit Number	ExitName	Char(1)
Number Of Address Ranges	NumAddrRanges	Decimal(2,0)
Scenic Route Name	Scenic_Name	Char(1)

5.3.7 Railroads (RailRds)

The RailRds table represents the Railroads layer. The Railroads layer has a Zoom Min/Max of 0/5 miles (0/7 kilometers). The Label Zoom Min/Max is 0/3 miles (0/5 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	MapInfo® Standard Pen Style 118
Points	N/A
Fill Patterns	N/A

Attributes and Structure

The Railroads layer contains the following attributes. Note that a single segment of a railroad is represented by multiple line or polyline objects when it is associated with multiple railroad names.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Railway Name	Railway_Name	Char(35)
Railway Name Language Code	Lang_Code	Char(3)
Bridge	Bridge	Char(1)

Attribute	Field Name	Format
Tunnel	Tunnel	Char(1)

5.3.8 Signs (Signs)

The Signs table represents the Signs layer.

Display Graphics

The Signs layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Destination Link ID	Destination_LinkID	Decimal(10,0)
Sign ID	SignID	Decimal(10,0)
Sequence Number	Seq_Number	Decimal(4,0)
Exit Number	Exit_Number	Char(8)
Branch Route ID	Branche_RouteID	Char(20)
Branche Route Direction	Brance_RouteDir	Char(1)
Sign Text Type	Sign_TextType	Char(1)
Sign Text	Sign_Text	Char(60)
Sign Language Code	Lang_Code	Char(3)
Toward Route ID	Toward_RouteID	Char(20)
Straight On	Straight_On	Char(1)

5.3.9 Condition/Driving Manoeuvres (Cdms)

The Cdms table represents the Condition/Driving Manoeuvres layer.

Display Graphics

This layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition/Driving Manoeuvres layer contains the following attributes. Note that multiple records will be found in this layer when there are multiple restricted manoeuvre links associated with a condition on a link.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Condition ID	Condition_ID	Decimal(10,0)
Condition Type	Condition_Type	Decimal(5,0)
Condition Value	Condition_Value1	Char(30)
Condition Value 2	Condition_Value2	Char(15)
End of Link	End_Of_Link	Char(1)
AR-Auto	AR_Auto	Char(1)
AR-Bus	AR_Bus	Char(1)
AR-Taxis	AR_Taxis	Char(1)
AR-Carpools	AR_Carpools	Char(1)
AR-Pedestrians	AR_Pedestrians	Char(1)
AR-Trucks	AR_Trucks	Char(1)
AR-Through Traffic	AR_ThroughTraffic	Char(1)
AR-Deliveries	AR_Deliveries	Char(1)
AR-Emergency Vehicles	AR_Emer_Veh	Char(1)

5.3.10 Condition/Driving Manoeuvres - Date/Time Modifiers (CdmDtmod)

The CdmDtmod table represents the Condition/Driving Manoeuvre - Date/Time Modifiers layer.

Display Graphics

The Condition/Driving Manoeuvre - Date/Time Modifiers layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition/Driving Manoeuvre - Date/Time Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Condition ID	Condition_ID	Decimal(10,0)
Date/Time Modifier (DTM) Type	DateTime_Type	Char(1)
Exclude Date	Exclude_Date	Char(1)
From End	FromEnd	Char(1)
Reference Date	Reference_Date	Char(8)
Expiration Date	Expiration_Date	Char(8)
Start Time	StartTime	Char(4)
End Time	EndTime	Char(4)

5.3.11 Condition Modifiers (CndMod)

The Condition Modifiers layer contains information about the restricted access conditions as well as driver alert conditions. The modifier value field may contain a coded value or a value string.

Display Graphics

The Condition Modifiers layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)
Modifier Type	Modifier_Type	Decimal(10,0)
Modifier Value	Modifier_Value	Decimal(10,0)

5.3.12 Condition Lane Template (CndLn)

The Condition Lane Template layer contains the values of the lane representation for HOV lanes. A row exists in this table only if a lane condition exists. Lane numbering is based on direction of travel with 1 being the innermost lane (left for right-side driving countries such as the US, and right for leftside driving countries such as the UK). Y/N values are only published for the number of actual lanes defined for the specified direction; all other lane columns will be blank.

Display Graphics

The Condition Lane Template layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Lane Template layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)
Lane 1	Lane_1	Char(1)
Lane 2	Lane_2	Char(1)
Lane 3	Lane_3	Char(1)
Lane 4	Lane_4	Char(1)
Lane 5	Lane_5	Char(1)
Lane 6	Lane_6	Char(1)
Lane 7	Lane_7	Char(1)
Lane 8	Lane_8	Char(1)
Lane 9	Lane_9	Char(1)
Lane 10	Lane_10	Char(1)
Lane 11	Lane_11	Char(1)
Lane 12	Lane_12	Char(1)
Lane 13	Lane_13	Char(1)
Lane 14	Lane_14	Char(1)
Lane 15	Lane_15	Char(1)
Lane 16	Lane_16	Char(1)

5.3.13 Condition Lane Traversal (CndLaneTrav)

The Condition Lane Traversal layer contains the lane-lane connectivity associated with a Lane Traversal condition. (The Lane Traversal condition is published in the regular Condition/Driving Maneouvres (CDMS) layer. The standard model (RDM/Maneouvre Links, RDMS layer) is used to publish links involved in the Lane Traversal condition.

Display Graphics

The Condition Lane Traversal layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)
Source Lane Number	S_Lane_Nr	Decimal(2,0)
Source Travel Direction	S_Dir_Trav	Char(1)
Destination Lane Number	D_Lane_Nr	Decimal(2,0)
Destination Travel Direction	D_Dir_Trav	Char(1)

5.3.14 Restricted Driving Manoeuvres - Manoeuvre Links (Rdms)

The Restricted Driving Manoeuvres – Manoeuvre Links layer contains information about all the manoeuvre links associated with a Condition/Driving Manoeuvre. This layer is essential when working with a Condition/Driving Manoeuvre that includes multiple links (e.g. an access restriction that applies to more than one link when calculating a route). This layer is used for route calculation in conjunction with the Restricted Driving Manoeuvres layer. The table ONLY contains conditions that involve two (2) or more links.

The Rdms table represents the Restricted Driving Manoeuvres - Manoeuvre Links layer.

Display Graphics

The Rdms layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Condition ID	Condition_ID	Decimal(10,0)
Manoeuvre Link ID	Manoeuvre Link ID	Decimal(10,0)
Sequence Number	Seq_Number	Decimal(4,0)

5.3.15 Traffic (Traffic)

The Traffic table represent the Traffic layer.

Display Graphics

The Traffic layer does not have any graphic objects associated with the data.

Attributes and Structure

The Traffic layer contains the following attributes. Note that for countries with multiple providers, there will be links having multiple traffic codes. Using the Location Database Number it is possible to be able to find the set of Traffic Codes for a specific provider. Please refer to the Product Release Notes for information about traffic providers and the values assigned to them.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Traffic Code	TrafficCode	Char(10)

5.3.16 Z-Levels (Zlevels)

The Zlevels table represents the Z-Levels layer. The Z-Levels layer has a Zoom Min/Max of 0/3 miles (0/5 kilometers). No labels are produced for geometric points.

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	N/A
Lines	N/A
Points	MapInfo standard Symbol 38 for End Points, and MapInfo Standard Symbol 40 for Shape Points.
Fill Patterns	N/A

Attributes and Structure

The Z-Levels layer contains the following attributes. Note that a single intersection is represented by multiple point objects when it connects with multiple line or polyline street segments.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Point Number	Point_Number	Decimal(4,0)
Node ID	Node_ID	Decimal(10,0)
Z-Level	Z_Level	Decimal(2,0)
Intersection	Intersection	Char(1)
Aligned	Aligned	Char(1)

5.3.17 Zones (Zones)

The Zones table represents the Zones layer.

Display Graphics

The Zones layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
Zone ID	Zone_ID	Decimal(10,0)
Zone Side	Side	Char(1)

5.3.18 Oceans (Oceans)

The Oceans table represents the Oceans layer. The Oceans layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, LightGrey
Points	N/A
Fill Patterns	LightBlue

Attributes and Structure

The Oceans layer contains the following attributes.

Attribute	Field Name	Format
Ocean ID	Polygon_ID	Decimal(10,0)
Ocean Name	Polygon_Name	Char(80)
Ocean Name Language Code	Name_LangCode	Char(3)
Ocean Description	Feature_Type	Char(40)
Detailed City	Detailed_Cty	Char(1)
Display Class	Disp_Class	Char(1)

5.3.19 Administrative Area Boundaries - 1 (Adminbndy1)

The Adminbndy1 table represents the Administrative Area Boundaries (1) layer. See Appendix B for a list of the administrative area types by country. The Administrative Area Boundaries (1) layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	4 pixels wide, Black
Points	N/A
Fill Patterns	Solid

Attributes and Structure

The Administrative Area Boundaries (1) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Decimal(10,0)
Area ID	Area_ID	Decimal(10)
Admin Area Name	Polygon_Name	Char(80)
Admin Area Name Language Code	Name_LangCode	Char(3)
Admin Area Description	Feature_type	Char(40)
Detailed City	Detailed_City	Char(1)

5.3.20 Administrative Area Boundaries - 2 (Adminbndy2)

The Adminbndy2 table represents the Administrative Area Boundaries (2) layer. See Appendix B for a list of the administrative area types by country. The Administrative Area Boundaries (2) layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	2 pixels wide, Light Grey
Points	N/A
Fill Patterns	Solid

Attributes and Structure

The Administrative Area Boundaries (2) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Decimal(10,0)

Attribute	Field Name	Format
Area ID	Area_ID	Decimal(10)
Admin Area Name	Polygon_Name	Char(80)
Admin Area Name Language Code	Name_LangCode	Char(3)
Admin Area Description	Feature_type	Char(40)
Detailed City	Detailed_City	Char(1)

5.3.21 Administrative Area Boundaries - 3 (Adminbndy3)

The Adminbndy3 table represents the Administrative Area Boundaries (3) layer. See Appendix B for a list of the administrative area types by country. The Administrative Area Boundaries (3) layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, Light Grey
Points	N/A
Fill Patterns	Solid

Attributes and Structure

The Administrative Area Boundaries (3) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Decimal(10,0)
Area ID	Area_ID	Decimal(10)
Admin Area Name	Polygon_Name	Char(80)
Admin Area Name Language Code	Name_LangCode	Char(3)
Admin Area Description	Feature_type	Char(40)

Attribute	Field Name	Format
Detailed City	Detailed_City	Char(1)

5.3.22 Administrative Area Boundaries - 4 (Adminbndy4)

The Adminbndy4 table represents the Administrative Area Boundaries (4) layer. See Appendix B for a list of the administrative area types by country. The Administrative Area Boundaries (4) layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	2 pixels wide, Light Grey
Points	N/A
Fill Patterns	Solid

Attributes and Structure

The Administrative Area Boundaries (4) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Decimal(10,0)
Area ID	Area_ID	Decimal(10)
Admin Area Name	Polygon_Name	Char(80)
Admin Area Name Language Code	Name_LangCode	Char(3)
Admin Area Description	Feature_type	Char(40)
Detailed City	Detailed_City	Char(1)

5.3.23 Administrative Area Boundaries - 5 (Adminbndy5)

The Adminbndy5 table represents the Administrative Area Boundaries (5) layer. See Appendix B for a list of the administrative area types by country. The Administrative Area Boundaries (5) layer

itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	2 pixels wide, Light Grey
Points	N/A
Fill Patterns	Solid

Attributes and Structure

The Administrative Area Boundaries (5) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Decimal(10,0)
Area ID	Area_ID	Decimal(10)
Admin Area Name	Polygon_Name	Char(80)
Admin Area Name Language Code	Name_LangCode	Char(3)
Admin Area Description	Feature_type	Char(40)
Detailed City	Detailed_City	Char(1)

5.3.24 Administrative Area (AdminArea)

The AdminArea table represents the Administrative Area layer.

Display Graphics

The Administrative Area layer does not have any graphic objects associated with the data.

Attributes and Structure

The Adminstrative Area contains the following attributes.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Decimal(10,0)
Area ID	Area_ID	Decimal(10,0)
Number of Area Ids	Number_Area_Ids	Decimal(2,0)

5.3.25 Cartographic Country (CartoCountry)

The CartoCountry table represents the Cartographic Country layer. The Cartographic Country layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	2 pixels wide, Solid Red
Points	N/A
Fill Patterns	N/A

Attributes and Structure

The Cartographic Country layer contains the following attributes.

Attribute	Field Name	Format
Cartographic Country ID	Link_ID	Decimal(10,0)
Cartographic Country Left Name	Left_Name	Char(35)
Cartographic Country Left Language Code	Left_Name_LangCode	Char(3)
Cartographic Country Right Name	Right_Name	Char(35)
Cartographic Country Right Language Code	Right_Name_LangCode	Char(3)
Detailed City	Detailed_City	Char(1)

5.3.26 Cartographic State (CartoState)

The CartoStatey table represents the Cartographic State layer. The Cartographic State layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	2 pixels wide, Solid Red
Points	N/A
Fill Patterns	N/A

Attributes and Structure

The Cartographic State layer contains the following attributes.

Attribute	Field Name	Format
Cartographic State ID	Link_ID	Decimal(10,0)
Cartographic State Left Name	Left_Name	Char(35)
Cartographic State Left Language Code	Left_Name_LangCode	Char(3)
Cartographic State Right Name	Right_Name	Char(35)
Cartographic State Right Language Code	Right_Name_LangCode	Char(3)
Detailed City	Detailed_City	Char(1)

5.3.27 Waterway Polygons, Waterway Segments (WaterWys)

The WaterWys table represents the Waterway Polygons and Segments layer. The Waterway Polygons and Segments layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	2 pixels wide, Solid Blue
Points	N/A
Fill Patterns	Blue

Attributes and Structure

The Waterway Polygons and Segments layer contains the following attributes. Note that a Waterway is represented by multiple region, line, or polyline objects when it has names in multiple languages.

Attribute	Field Name	Format
Waterway ID	Polygon_ID	Decimal(10,0)
Waterway Name	Polygon_Name	Char(80)
Waterway Language Code	Name_LangCode	Char(3)
Waterway Description	Feature_Type	Char(40)
Detailed City	Detailed_City	Char(1)
Display Class	Disp_Class	Char(1)

5.3.28 Building/Landmark Features (Landmark)

The Landmark table represents the Building/Landmark Features layer. The Building/Landmark Features layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, Solid Black
Points	N/A
Fill Patterns	Gray

Attributes and Structure

The Building/Landmark Features layer contains the following attributes. Note that a Building/ Landmark feature is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Building/Landmark ID	Polygon_ID	Decimal(10,0)
Building/Landmark Name	Polygon_Name	Char(80)
Building/Landmark Language Code	Name_LangCode	Char(3)
Building/Landmark Description	Feature_Type	Char(40)
Detailed City	Detailed_City	Char(1)
Admin Feature Code	Feature_Code	Decimal(7,0)
Building Height	Height	Number(3,0)

5.3.29 Land Use Features A (LandUseA)

Land Use Features (A) contains polygons that represent various land usage features found within a coverage area. These include Airports, Beaches, Cemeteries, Hospitals, Industrial Complexes, Military Bases, Parks, Park in Water, National Monuments, Public Use Areas, Colonias, Shopping Centres, Sports Complexes, Undefined Traffic Areas, University/Colleges, Woodlands, Colonias, and Neighborhoods.

The Land Use Features A layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, Solid Black
Points	N/A
Fill Patterns	TBD, Solid light blue for Park in Water

Attributes and Structure

The Land Use Features A layer contains the following attributes. Note that a Land Usage is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Land Use ID	Polygon_ID	Decimal(10,0)
Land Use Name	Polygon_Name	Char(80)
Land Use Language Code	Name_LangCode	Char(3)
Land Use Description	Feature_Type	Char(40)
Detailed City	Detailed_City	Char(1)
Feature Code	Feature_Code	Decimal(7,0)
Display Class	Disp_Class	Char(1)

5.3.30 Land Use Features B (LandUseB)

The LandUseB table represents the Land Use Features B layer. The features included in this layer are Aircraft Roads, Golf Courses, Native American Reservations, and Pedestrian Zones. The Land Use Features B layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, Solid Black
Points	N/A
Fill Patterns	TBD

Attributes and Structure

The Land Use Features B layer contains the following attributes. Note that a Land Usage is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Land Use ID	Polygon_ID	Decimal(10,0)
Land Use Name	Polygon_Name	Char(80)
Land Use Language Code	Name_LangCode	Char(3)
Land Use Description	Feature_Type	Char(40)
Detailed City	Detailed_City	Char(1)
Feature Code	Feature_Code	Decimal(7,0)

5.3.31 Islands (Islands)

The Islands table represents the Islands layer. The Islands layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, LightGrey
Points	N/A
Fill Patterns	LightWheat

Attributes and Structure

The Islands layer contains the following attributes.

Attribute	Field Name	Format
Island ID	Polygon_ID	Decimal(10,0)
Island Name	Polygon_Name	Char(80)
Island Name Language Code	Name_LangCode	Char(3)
Island Description	Feature_Type	Char(40)
Detailed City	Detailed_City	Char(1)

5.3.32 Named Places (NamedPlc)

The NamedPlc table represents the Named Places layer. The Named Places layer has a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	Cityl32.bmp
Fill Patterns	N/A

Attributes and Structure

The Named Places layer contains the following attributes. Note that a Named Place is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.‘

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5)
Named Place Name	Poi_Name	Char(35)

Attribute	Field Name	Format
Named Place Name Language Code	PoiNm_LangCode	Char(3)
Named Place Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Population	Population	Decimal(10,0)
Capital	Capital	Char(1)
Vanity City	Vanity_City	Char(35)
Actual Address	Actuall_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.33 Hamlets (Hamlet)

The Hamlet table represents the Hamlets layer. The Hamlets layer has a Zoom Min/Max of 0/.5 miles (0/.8 kilometers). The Label Zoom Min/Max is 0/.5 miles (0/.8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Hamlet.bmp
Fill Patterns	N/A

Attributes and Structure

The Hamlets layer contains the following attributes. Note that a Hamlet is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Hamlet Name	Poi_Name	Char(35)
Hamlet Name Language Code	PoiNm_LangCode	Char(3)
Hamlet Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)

Attribute	Field Name	Format
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.34 Hospitals (Hospital)

The Hospital table represents the Hospitals layer. The Hospitals layer has a Zoom Min/Max of 0/ 8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	Hospitl3.bmp,  Healthcare32.bmp
Fill Patterns	N/A

Attributes and Structure

The Hospitals layer contains the following attributes. Note that a hospital is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Hospital Name	Poi_Name	Char(35)
Hospital Name Language Code	PoiNm_LangCode	Char(3)
Hospital Name Type	Poi_NameType	Char(1)

Attribute	Field Name	Format
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.35 Parks and Recreation (ParkRec)

The Parks and Recreation layer contains Amusement Parks, Golf Courses, Museums, Sports Complexes, Marina, Public Sport Airports, Bowling Centres, Park/Recreation areas, Casinos, Sports Centres, and Ice Skating Rinks within the NAVSTREETS coverage area.

Amusement Parks These include locally known parks that contains rides or other entertainment that may be based on a central theme.

Golf Courses These include all private and public golf courses.

Museums These include museums of regional importance that are open to the public.

Sports Complexes These include all multi-use indoor arenas that seat more than 1,000 people, multi-use outdoor arenas that seat more than 10,000 people, and race tracks.

Marinas	These are specific to yacht harbours and public docking facilities. (North America only.)
Public Sport Airports	These include all airfields designated for recreational purposes (e.g. to fly hot air balloons, use gliders, get flying lessons, fly private airplanes). This category is exclusive to Europe.
Bowling Centres	These include major bowling centres that are regionally known and have more than six bowling alleys. This category is exclusive to Europe.
Park/ Recreation Areas	These include areas of public land that are preserved and maintained for recreational use (public parks and recreation parks).
Casinos	IIn the United States, these include any variety of gambling and gaming establishments ranging from the large casinos in Las Vegas to riverboat gambling and card rooms that draw regionally. In Europe and Canada, NAVSTREETS only includes casinos that are licensed by the government.
Sports Centres	These include all combined sport centres, swimming and tennis facilities, and famous public fitness centres that also offer other facilities like sauna and massage. This category is exclusive to Europe.
Ice Skating Rinks	These include all indoor and outdoor facilities designed for all types of ice skating. This category is exclusive to Europe.

The ParkRec table represents the Parks and Recreation layer. The Parks and Recreation layer has a Zoom Min/Max of 0/1.5 miles (0/2.4 kilometers). The Label Zoom Min/Max is 0/.5 miles (0/ .8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Amuse32.bmp,  Museum32.bmp,  Sports32.bmp,  Rec32.bmp,  Golf32.bmp,  Bowling3.bmp,  Marina32.bmp,  Casino32.bmp,  Skating3.bmp,  Sprtair3.bmp
Fill Patterns	N/A

Attributes and Structure

The Parks and Recreation layer contains the following attributes. Note that a park/recreation facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Park/Recreation Name	Poi_Name	Char(35)
Park/Recreation Name Language Code	PoiNm_LangCode	Char(3)
Park/Recreation Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)

Attribute	Field Name	Format
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.36 Transportation Hubs (TranHubs)

The Transportation Hubs layer contains all Airports, Bus Stations, Train Stations, and Ferry Terminals within the NAVSTREETS coverage area.

Airports These include all national public airports in Europe (more than 300,000 passengers per year), all FAA certified airports in the United States, and all public airports in Canada.

Bus Stations These are facilities that function as a hub for a bus service network, including those that provide park and ride facilities, and long distance and/or inter-city bus service.

Train Stations These include all facilities that function as a hub for passengers and goods traveling between metropolitan areas along a railway network.

Ferry Terminals This category is specific to structures established and maintained by ferry services that transport passengers and automotive vehicles by rail or water.

Public Transit Stop These are points where passengers can board a public transportation vehicle.

Public Transit Access These facilities represent multiple entrances for one Public Transit Stop.

Taxi Stand These are designated areas for queuing, loading and unloading taxis.

Commuter Rail Stations These are facilities established to provide inter-city and commuter rail transportation. This includes all metro stations in the UK.

The TransHubs table represents the Transportation Hubs layer. The Transportation Hubs layer has a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Airport3.bmp,  Train32.bmp,  bus32.bmp,  Ferry32.bmp,  Comrail3.bmp,  TransitStop32.bmp,  TransitAccess32.bmp,  Taxi32.bmp
Fill Patterns	N/A

Attributes and Structure

The Transportation Hubs layer contains the following attributes. Note that a transportation hub is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)

Attribute	Field Name	Format
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Airport Sub Type	Airport_Sub_Type	Char(1)
Transit Access Level	T_Acc_Lev	Char(1)
Transit Access Type	T_Acc_Type	Char(1)
Transit Access Method	T_Acc_Meth	Char(1)

5.3.37 Travel Destinations (TravDest)

The TravDest table represents the Travel Destinations layer. The Travel Destinations layer has a Zoom Min/Max of 0/1.5 miles (0/2.4 kilometers). The Label Zoom Min/Max is 0/.5 miles (0/.8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Hotel32.bmp,  Tourist3.bmp,  Tourinf3.bmp,  Convtn32.bmp,  Winery32bmp,  Skiing32.bmp,  Restare3.bmp,  Histor32.bmp,  RentCar3.bmp
Fill Patterns	N/A

Attributes and Structure

The Travel Destination layer contains the following attributes. Note that a travel destination is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)

Attribute	Field Name	Format
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Rest Area Type	Rest_Area_Type	Char(30)

5.3.38 Shopping (Shopping)

The Shopping table represents the Shopping layer. The Shopping layer has a set to a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Shop32.bmp,  Grocery3.bmp,  Pharmacy32.bmp
Fill Patterns	N/A

Attributes and Structure

The Shopping layer contains the following attributes. Note that a shopping destination is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)

Attribute	Field Name	Format
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.39 Restaurants (Restrnts)

The Restrnts table represents the Restaurants layer. The Restaurants layer has a Zoom Min/Max of 0/1.5 miles (0/2.4 kilometers). The Label Zoom Min/Max is 0/.5 miles (0/.8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Rest1-32
Fill Patterns	N/A

Attributes and Structure

The Restaurant layer contains the following attributes. Note that a restaurant is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Cuisine Type	Food_Type	Char(35)
Vanity City	Vanity_City	Char(35)

Attribute	Field Name	Format
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.40 Entertainment (Entertn)

The Entertn table represents the Entertainment layer. The Entertainment layer has a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Disco32.bmp,  PerArt3.bmp,  Cinema32.bmp,  Nightclub32.bmp
Fill Patterns	N/A

Attributes and Structure

The Entertainment layer contains the following attributes. Note that an entertainment destination is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)

Attribute	Field Name	Format
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.41 Auto Maintenance, Service, and Petrol (AutoSvc)

The AutoSvc table represents the Auto Maintenance, Service, and Petrol layer. The Auto Maintenance, Service, and Petrol layer has a Zoom Min/Max of 0/1.5 miles (0/2.4 kilometers). The Label Zoom Min/Max is 0/.5 miles (0/.8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Petrol32.bmp,  Carserv3.bmp,  Cardeal3.bmp,  Carclub3.bmp  Motorcy3.bmp
Fill Patterns	N/A

Attributes and Structure

The Auto Maintenance, Service, and Petrol layer contains the following attributes. Note that an item is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)

Attribute	Field Name	Format
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Open 24 Hours	Open_24_Hours	Char(1)
Diesel	Diesel	Char(1)

5.3.42 Financial Solutions (FinInsts)

The FinInsts table represents the Financial Institutions layer. The Financial Institutions layer has a Zoom Min/Max of 0/1.5 miles (0/2.4 kilometers). The Label Zoom Min/Max is 0/.5 miles (0/.8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	Bank32.bmp, Atm32.bmp
Fill Patterns	N/A

Attributes and Structure

The Financial Institutions layer contains the following attributes. Note that a financial institution is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)

Attribute	Field Name	Format
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.43 Business Facilities (Business)

The Business table represents the Business Facilities layer. The Business Facilities layer has a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Busines3.bmp,  Industrial32.bmp
Fill Patterns	N/A

Attributes and Structure

The Business Facilities layer contains the following attributes. Note that a business facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)

Attribute	Field Name	Format
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.44 Community Service Centres (CommSvc)

The Community Service Centres layer contains all civic/community centres, city halls, court houses, post offices, and police stations within the NAVSTREETS coverage area.

Civic/ Community Centre These include all civic or community centres (public buildings used for community events). In Europe, this is specific to civic or community centres with a regional function.

City Hall These include the city hall of each municipality or settlement within the NAVSTREETS coverage area. (North America only.)

Court House These include court houses at any level of government. (North America only.)

Police Station These include any police stations within the NAVSTREETS coverage area. (North America only.)

Place of Worship These include all places of worship within the NAVSTREETS coverage area.

Post Office These include all facilities which provide mail services.

The CommSvc table represents the Community Service Centres layer.

The Community Service Centre layer has a Zoom Min/Max of 0/1.5 miles (0/2.4 kilometers). The Label Zoom Min/Max is 0/.5 miles (0/.8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Commctr3.bmp,  Cityhal3.bmp,  Court32.bmp,  Police32.bmp,  Governmentoffices32.bmp,  Religious.bmp  PostOff3.bmp
Fill Patterns	N/A

Attributes and Structure

The Community Service Centres layer contains the following attributes. Note that a community service centre is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Building Type	Building_Type	Char(30)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)

Attribute	Field Name	Format
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.45 Educational Institutions (EduInsts)

The EduInsts table represents the Educational Institutions layer. The Educational Institutions layer has a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 School32.bmp,  Library3.bmp,  Highedu3.bmp
Fill Patterns	N/A

Attributes and Structure

The Educational Institutions layer contains the following attributes. Note that an educational institution is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.46 Parking (Parking)

The Parking table layer represents the Parking layer. The Parking layer has a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 Parklot3.bmp,  Parking3.bmp,  Prk&rid3.bmp
Fill Patterns	N/A

Attributes and Structure

The Parking layer contains the following attributes. Note that a parking facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)

Attribute	Field Name	Format
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.47 Border Crossing (BordCross)

The BordCross table represents the Border Crossing layer. The Border Crossing layer has a Zoom Min/Max of 0/1.5 miles (0/2.4 kilometers). The Label Zoom Min/Max is 0/.5 miles (0/.8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 BordCross.bmp
Fill Patterns	N/A

Attributes and Structure

The Border Crossing layer contains the following attributes. Note that a border crossing is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)

Attribute	Field Name	Format
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.48 Miscellaneous Categories (MiscCategories)

The Miscellaneous Categories layer contains facilities within the NAVSTREETS coverage area that cannot be categorized into any other layer.

The MiscCategories table represents the Miscellaneous Categories layer.

The Miscellaneous Categories layer has a Zoom Min/Max of 0/8 miles (0/12 kilometers). The Label Zoom Min/Max is 0/5 miles (0/8 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	N/A
Points	 ResiBldg3.bmp
Fill Patterns	N/A

Attributes and Structure

The Miscellaneous Categories layer contains the following attributes. Note that a miscellaneous POI is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10,0)
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Facility_Type	Decimal(5,0)
Facility Name	Poi_Name	Char(35)
Facility Name Language Code	PoiNm_LangCode	Char(3)
Facility Name Type	Poi_NameType	Char(1)
Street Number	Poi_St_Number	Char(10)
Street Name	Street_Name	Char(80)
Street Name Language Code	St_LangCode	Char(3)
Side	Poi_St_Side	Char(1)
Access Type	Access_Type	Char(1)
Phone Number	Phone Number	Char(15)
Chain ID	Chain_ID	Decimal(5,0)
National Importance	National_Importance	Char(1)
Private	Private	Char(1)
In Vicinity	In_Vicinity	Char(1)
Number Parents	Number_Parents	Decimal(5,0)
Number Children	Number_Children	Decimal(5,0)
Vanity City	Vanity_City	Char(35)

Attribute	Field Name	Format
Actual Address	Actual_Address	Char(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.3.49 Point Addresses (PntAddr)

The Point Addresses layer contains the individual house numbers for a link, represented as point objects.

The PntAddr table represents the Point Addresses layer.

Display Graphics

The Point Addresses layer has geometry associated with each point, but it does not have any graphic objects associated with the data.

Attributes and Structure

The Point Addresses layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Point Address ID	Pt_Addr_ID	Number(10,0)
Side	Side	Char(1)
Feature ID	Featur_ID	Decimal(10,0)
Address	Address	Char(10)

5.3.50 Point Of Interest Association (PoiAssoc)

The PoiAssoc table represents the Point Of Interest Association layer.

Display Graphics

The Point Of Interest Association layer does not have any graphic objects associated with the data.

Attributes and Structure

The Point Of Interest Association contains the following attributes.

Attribute	Field Name	Format
Parent ID	Parent_ID	Decimal(10,0)
Child ID	Child_ID	Decimal(10,0)
Assoc Type	Assoc_Type	Char(1)

5.3.51 Aggregated Feature (AggrFeature)

The Aggregated Feature layer contains general aggregation (grouping) of polygonal features used in the context of City Model data: Grouped Structures or Grouped Complexes.

The AggrFeature table represents the Aggregated Feature layer.

Display Graphics

The Aggregated Feature layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
Aggregated Feature Description	Feat_Type	Char(40)
Aggregation Type	Aggr_Type	Number(2,0)
Aggregated Feature Name	Aggr_Name	Char(35)
Aggregated Feature Language Code	Nm_LangCd	Char(3)
Associated POI ID	POI_ID	Number(10,0)
Number of Components	Num_Comp	Number(5,0)

Attribute	Field Name	Format
Feature Code	Feat_Code	Number(7,0)
Number of Attachments	Num_Attach	Number(5,0)

5.3.52 Aggregated Feature Component (AggrFeatComp)

The Aggregated Feature Component layer defines the components included in an Aggregated Feature.

The AggrFeatComp table represents the Aggregated Feature Component layer.

Display Graphics

The Aggregated Feature Component layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature Component layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
Sequence Number	Seq_Num	Number(5,0)
Component Type	Comp_Type	Char(2)
Component ID	Comp_ID	Number(10,0)

5.3.53 Aggregated Feature File Association (AggrFeatFile)

The Aggregated Feature File Association layer defines the association of auxiliary files to an Aggregated Feature. The files are provided as auxiliary data outside the NAVSTREETS structure.

The AggrFeatFile table represents the Aggregated Feature File Association layer.

Display Graphics

The Aggregated Feature File Association layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature File Association layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
File Type	File_Type	Number(2,0)
Attachment Type	Att_Type	Char(3)
File Name	File_Name	Char(150)

5.3.54 POI File Association (PoiFileAssoc)

The POI File Association layer defines the association of auxiliary files to a POI. The files are provided as auxiliary data outside the NAVSTREETS structure.

The PoiFileAssoc table represents the POI File Association layer.

Display Graphics

The POI File Association layer does not have any graphic objects associated with the data.

Attributes and Structure

The POI File Association layer contains the following attributes.

Attribute	Field Name	Format
POI ID	POI_ID	Number(10,0)
File Type	File_Type	Number(2,0)
Attachment Type	Att_Type	Char(3)
File Name	File_Name	Char(150)

5.3.55 Actual POI Location (ActPOILoc)

The Actual POI Location layer defines the actual position of a POI. Display coordinates are floating coordinates not positioned on any existent road network geometry. The files are provided as auxiliary data outside the NAVSTREETS structure.

Display Graphics

The Actual POI Location layer does not have any graphic objects associated with the data.

Attributes and Structure

The Actual POI Location contains the following attributes.

Attribute[1]	Field Name	Format
POI ID	Poi_ID	Decimal(10,0)
Facility Type	Fac_Type	Decimal(5,0)

1. A POI facility is represented by multiple point objects when it has names in multiple languages. The field Facility Type should be used to refer each entry in this layer to the correct main POI Layer. The POI ID should then be used to retrieve the POI Name in the main POI layer.

5.3.56 Risk Prone Area (RiskArea)

The Risk Prone Area layer contains polygons representing risk prone areas. The risks can include hurricanes, tornados, etc. This layer can aide in showing evacuation routes in the event of a natural disaster. This layer currently supports hurricane prone areas only.

The RiskArea table represents the Risk Prone Area layer.

The Risk Prone Area layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Display Graphics

Object	*Font/Pen/Brush/Symbol*
Labels	Black, 8pt, Century Gothic
Lines	1 pixel wide, Solid Black
Points	N/A
Fill Patterns	Light orange color for hurricane prone areas

Attributes and Structure

The Risk Prone Area layer contains the following attributes.

Attribute	Field Name	Format
Polygon ID	Polygon_ID	Decimal(10,0)
Polygon Name	Polygon_Name	Char(35)
Language Code	Name_LangCode	Char(3)
Feature Description	Feature_Type	Char(40)
Detailed City	Detailed_City	Char(1)
Admin Feature Code	Feature_Code	Decimal(10,0)
Severity Rating	Severity_Rating	Char(2)

5.3.57 Metadata - Reference Classes (MtdRef)

The MtdRef table represents the Metadata - Reference Classes layer.

The Metadata - Reference Classes layer does not have any graphic objects associated with the data.

The Metadata - Reference Classes layer describes the following Reference Classes.

Reference Class Descriptions:

Name	Description/Attribute
AANAMTYP	Administrative Area Name Type
ADDRFMT	Address Format
ADDRSCH	Address Scheme
ADDRTYPE	Address Type
BEARING	Direction of Travel
CHAINID	Chain ID
CONDTYPE	Condition Type
CURRTYPE	Currency Type
DATETYPE	Date Type
DATUM	World Geodetic System of 1984
DIRSIGN	Direction on Sign
DIVLOC	Divider Location

Name	Description/Attribute
DRIVSIDE	Driving Side
FACILITY	Facility Type
FEATURE	Feature Type
FUNCLASS	Function Class
HSENBFMT	House Number Format
LANECAT	Lane Category
LANGCODE	Language Code
LINKEND	Link End
POIACTYP	POI Access Type
POISIDE	POI Side
PONAMTYP	POI Name Type
PREFSUFF	Prefix/Suffix Street Type
RTETYPE	Route Type
SPEEDCAT	Speed Category
STRTYPE	Street Type
TEXTTYPE	Sign Text Type
UOM	Unit of Measure
ZNNAMTYP	Zone Name Type
ZONETYPE	Zone Type

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Reference Class	Reference_Class	Char(10)
Code	Code	Char(12)
Description	Description	Char(40)
language Code	Lang_Code	Char(3)

5.3.58 Metadata - Administrative Area (MtdArea)

The MtdArea table represents the Metadata - Administrative Area layer.

The Metadata - Administrative Area layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Area ID	Area_ID	Decimal(10,0)
Area Code 1	AreaCode_1	Decimal(5,0)
Area Code 2	AreaCode_2	Decimal(5,0)
Area Code 3	AreaCode_3	Decimal(5,0)
Area Code 4	AreaCode_4	Decimal(5,0)
Area Code 5	AreaCode_5	Decimal(5,0)
Area Code 6	AreaCode_6	Decimal(5,0)
Area Code 7	AreaCode_7	Decimal(5,0)
Administrative Level	Admin_Level	Decimal(1,0)
Area Name	Area_Name	Char(35)
Area Name Language Code	Lang_Code	Char(3)
Area Name Type	Area_NameType	Char(1)
Government Code	Govt_Code	Decimal(10,0)

5.3.59 Metadata - Zone Records (MtdZoneRec)

The MtdZoneRec table represents the Metadata - Zone Records layer.

The Metadata - Zone Records layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Zone ID	Zone_ID	Decimal(10,0)
Zone Name	Zone_Name	Char(35)
Language Code	Lang_Code	Char(3)
Name Type	Zone_NameType	Char(1)
Zone Type	Zone_Type	Char(2)
Area ID	Area_ID	Decimal(10,0)

5.3.60 Metadata - File Identification (MtdFileId)

The MtdFileId table represents the Metadata - File Identification layer.

The Metadata - Field Identification layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Copyright	Copyright	Char(52)
SIF+ Standard Creation Date	Sifplus_CreationDate	Decimal(6,0)
Database Version	Database_Version	Char(5)
SIF+ Standard Creation Time	Sifplus_CreationTime	Decimal(6,0)
GIS Software Version	MapInfo_Software_Ver	Char(5)
GIS File Version	MapInfo_FileFormat_Ver	Char(5)
Requested Area	Requested_Area	Char(30)
DNDC Region	Region_ID	Char(5)
Datum	Datum	Char(5)

5.3.61 Metadata - Country Reference (MtdCntryRef)

The MtdCntryRef table represents the Metadata - Country Reference layer.

The Metadata - Country Reference layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Government Code	Govt_Code	Decimal(10,0)
Unit of Measure	UnitOfMeasure	Char(1)
Maximum Admin Level	Max_AdminLevel	Decimal(1,0)
Currency Precision	Currency_Precision	Decimal(1,0)
House Number Format(	HouseNbrFormat	Char(1)
Driving Side	Driving_Side	Char(1)
Currency Type	Currency Type	Char(3)
Phone Country Code	Phone_CntryCode	Char(3)
AALevel 1 Feature Type	AALevel1_FeaType	Decimal(7,0)
AALevel 2 Feature Type	AALevel2_FeaType	Decimal(7,0)
AALevel 3 Feature Type	AALevel3_FeaType	Decimal(7,0)
AALevel 4 Feature Type	AALevel4_FeaType	Decimal(7,0)
AALevel 5 Feature Type	AALevel5_FeaType	Decimal(7,0)
AALevel 6 Feature Type	AALevel6_FeaType	Decimal(7,0)
AALevel 7 Feature Type	AALevel7_FeaType	Decimal(7,0)
AALevel 1 Address Flag	AALevel1_AddrFlag	Char(1)
AALevel 2 Address Flag	AALevel2_AddrFlag	Char(1)
AALevel 3 Address Flag	AALevel3_AddrFlag	Char(1)
AALevel 4 Address Flag	AALevel4_AddrFlag	Char(1)
AALevel 5 Address Flag	AALevel5_AddrFlag	Char(1)
AALevel 6 Address Flag	AALevel6_AddrFlag	Char(1)
AALevel 7 Address Flag	AALevel7_AddrFlag	Char(1)
Admin Area 1 Description	AALevel1_Description	Char(18)
Admin Area 2 Description	AALevel2_Description	Char(18)
Admin Area 3 Description	AALevel3_Description	Char(18)
Admin Area 4 Description	AALevel4_Description	Char(18)
Admin Area 5 Description	AALevel5_Description	Char(18)

Attribute	Field Name	Format
Admin Area 6 Description	AALevel6_Description	Char(18)
Admin Area 7 Description	AALevel7_Description	Char(18)

5.3.62 Metadata – Compound Reference (MtdCmpRef)

The Metadata - Compound Reference layer contains description information for the access restriction (HOV) condition modifiers. The MtdCmpRef table represents the Metadata – Compound Reference layer.

Display Graphics

The Metadata – Compound Reference layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Modifier Type	Modifier_Type	Decimal(10,0)
Modifier Value	Modifier_Value	Decimal(10,0)
Modifier Type Description	ModTypeDesc	Char(40)
Modifier Value Description	ModValDesc	Char(40)
Language Code	LangCode	Char(3)
Code	Code	Char(8)

5.3.63 Empty Layers Note

Some layers can and will be empty. This will vary depending upon the coverage area and the size of the coverage area for the product. The following layers should always contain data:

MtdCntryRef

MtdArea

MtdFileId

MtdRef

MtdZoneRec

MtdZone

Streets

Zlevels

Note: Layers such as Waterwys, ntc_Adminbndy3, Adminbndy4, and Majhwys; could potentially be empty, but this is highly unlikely unless the size of the dataset size is extremely small.

5.4 Oracle

5.4.1 Major Highways (NTC_MajHwys)

The MajHwys table represents the Major Highways layer.

Indexes Provided (Typical Install)

NTC_MAJHWYS_SIN

NTC_MAJHWYS_RIN (indexed on field LINK_ID)

Attributes and Table Structure

The Major Highways layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a major highway when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Highway Name	Highway_Name	VarChar2(80)
Highway Name Language Code	Lang_Code	VarChar2(3)
Functional Class	Func_Class	VarChar2(1)
Route Type	Route_Type	VarChar2(1)
Direction On Sign	DirOnSign	VarChar2(1)
Boat Ferry	BoatFerry	VarChar2(1)
Rail Ferry	RailFerry	VarChar2(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.2 Major Highway Shields (NTC_MajHwyShield)

The MajHwyShield table represents the Major Highway Shields layer.

Indexes Provided (Typical Install)

NTC_MAJHWYSHIE_SIN

NTC_MAJHWYSHIE_RIN (indexed on field LINK_ID)

Attributes and Table Structure

The Major Highway Shields layer contains the following attributes. Note that multiple point objects represent a Major Highway Shield icon when it is associated with multiple Highway Names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Highway Name	Highway_Name	VarChar2(80)
Highway Name Language Code	Lang_Code	VarChar2(3)
Direction On Sign	DirOnSign	VarChar2(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.3 Secondary Highways (NTC_SecHwys)

The SecHwys table represents the Secondary Highways layer.

Indexes Provided (Typical Install)

NTC_SECHWYS_SIN

NTC_SECHWYS_RIN (indexed on field LINK_ID)

Attributes and Structure

The Secondary Highways layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a secondary highway when it is associated with multiple highway names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Highway Name	Highway_Name	VarChar2(80)
Highway Name Language Code	Lang_Code	VarChar2(3)
Functional Class	Func_Class	VarChar2(1)
Route Type	Route_Type	VarChar2(1)
Direction On Sign	DirOnSign	VarChar2(1)
Boat Ferry	BoatFerry	VarChar2(1)
Rail Ferry	RailFerry	VarChar2(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.4 Secondary Highway Shields (NTC_SecHwyShield)

The SecHwyShield table represents the Secondary Highway Shields layer.

Indexes Provided (Typical Install)

NTC_SECHWYSHIE_SIN

NTC_SECHWYSHIE_RIN (indexed on field LINK_ID)

Attributes and Structure

The Secondary Highway Shields layer contains the following attributes. Note that multiple point objects represent a Secondary Highway Shield icon when it is associated with multiple Highway Names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Highway Name	Highway_Name	VarChar2(80)
Highway Name Language Code	Lang_Code	VarChar2(3)
Direction On Sign	DirOnSign	VarChar2(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.5 Streets (NTC_Streets)

The Streets layer contains all roads plus all Road Network features such as direction of travel, dividers, speed category, and access restrictions. This layer is suitable for routing applications, as it represents the complete navigable road network. For intersection-driven routing applications, the Z Levels layer can also be used to establish roadway connectivity. This layer also contains address ranges for all addressable lines and polylines. NAVSTREETS provides Addresses for each end and each side of a line or polyline. "From" addresses correspond to the "Reference" end of the line or polyline, and "To" addresses correspond to the "Non-Reference" end of the line or polyline.

For NAVTEQ purposes the reference node is the one with the lowest Latitude/Longitude values, which in the Northern hemisphere equates to the node furthest to the southwest on any individual link. Shapepoints are ordered sequentially from the reference node.

When multiple street names and addresses exist for the same geometry, then multiple rows appear for the same Link ID.

The Streets table represents the Streets layer.

An Alternate Street Address table exists to model alternate names/addresses for Street Links. This table is non-geometrical, and thereby eliminates the duplicate geometry present in the current Streets layer.

Certain Street Layer entries will have a corresponding Alternate Street Address layer entry. In the following cases an Alternate Street Address layer entry is generated for a Link:

- The Link has more than one Street Name
- The Link has more than one Address Range

Street Layer entries having Num_StNames > 1 or NumAddrRanges > 1 will have a corresponding entry in the Alternate Street Address layer.

Indexes Provided (Typical Install)

NTC_STREETS_SIN

NTC_STREETS_RIN (indexed on field LINK_ID)

Attributes and Structure

The Streets layer contains the following attributes. Note that multiple line or polyline objects represent a single segment of a street when it is associated with multiple street names and contains multiple address ranges.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Street Name	Street_Name	VarChar2(80)
Feature ID	Feature_ID	Number(10)
Street Name Language Code	St_LangCode	VarChar2(3)
Number of Street Names	Num_StNames	Number(2)
Street Name Prefix	StNm_Pref	VarChar2(2)
Street Type Before	StType_Before	VarChar2(30)
Street Name Base	StNm_Base	VarChar2(35)
Street Name Suffix	StNm_Suff	VarChar2(2)
Street Type After	StTyp_After	VarChar2(30)
Street Type Attached	StType_Attached	VarChar2(1)
Address Type	Address_Type	VarChar2(1)
Left Side Reference Address	Left_RefAddr	VarChar2(10)
Left Side Non-Reference Address	Left_NonRefAddr	VarChar2(10)
Left Address Scheme	Left_AddrScheme	VarChar2(1)

Attribute	Field Name	Format
Left Address Format	Left_AddrFormat	VarChar2(1)
Right Side Reference Address	Right_RefAddress	VarChar2(10)
Right Side Non-Reference Address	Right_NonRefAddr	VarChar2(10)
Right Address Scheme	Right_AddrScheme	VarChar2(1)
Right Address Format	Right_AddrFormat	VarChar2(1)
Reference End Intersection ID	Ref_Intrsect_ID	Number(10)
Non-Reference End Intersection ID	Nref_Intrsect_ID	Number(10)
Number of Shapepoints	Num_ShapePoints	Number(10)
Functional Class	Func_Class	VarChar2(1)
Speed Category	Speed_Cat	VarChar2(1)
From Reference Speed Limit	From_Ref_Speed_Limit	Number(5)
Toward Reference Speed Limit	To_Ref_Speed_Limit	Number(5)
To Lanes	To_Lanes	Number(2)
From Lanes	From_Lanes	Number(2)
Enhanced Geometry	Enhanced_Geometry	VarChar(1)
Lane Category	Lane_Cat	VarChar2(1)
Divider Location	Divider	VarChar2(1)
Direction of Travel	Dir_Of_Travel	VarChar2(1)
Left Area ID	L_Area_ID	Number(10)
Right Area ID	R_Area_ID	Number(10)
Left Postal Code	L_PostCode	VarChar2(11)
Right Postal Code	R_PostCode	VarChar2(11)
Number of Left Zones	Left_NumZones	Number(2)
Number of Right Zones	Right_NumZones	Number(2)
Access Automobiles	AR_Auto	VarChar2(1)
Access Buses	AR_Bus	VarChar2(1)
Access Taxis	AR_Taxis	VarChar2(1)
Access Carpools	AR_Carpools	VarChar2(1)
Access Pedestrians	AR_Pedestrians	VarChar2(1)
Access Trucks	AR_Trucks	VarChar2(1)

Attribute	Field Name	Format
Access Through Traffic	AR_ThroughTraffic	VarChar2(1)
Access Deliveries	AR_Deliveries	VarChar2(1)
Access Emergency Vehicles	AR_EmerVeh	VarChar2(1)
Paved	Paved	VarChar2(1)
Private	Private	VarChar2(1)
Frontage Road	Frontage	VarChar2(1)
Bridge	Bridge	VarChar2(1)
Tunnel	Tunnel	VarChar2(1)
Ramp	Ramp	VarChar2(1)
Tollway	Tollway	VarChar2(1)
POI Access Road	PoiAccess	VarChar2(1)
Controlled Access	ControlledAccess	VarChar2(1)
Roundabout	Roundabout	VarChar2(1)
Intersection Internal	IntersectionInternal	VarChar2(1)
Undefined Traffic Area	UndefTrafficArea	VarChar2(1)
Boat Ferry	BoatFerry	VarChar2(1)
Rail Ferry	RailFerry	VarChar2(1)
Multiply Digitised	MultiDigitized	VarChar2(1)
Maximum Attributes	MaxAttr	VarChar2(1)
Special Traffic Figure	SpecialTrafficFigure	VarChar2(1)
Indescribable	Indescribable	VarChar2(1)
Manoeuvre	Manoeuvre	VarChar2(1)
Divider Legal	DividerLegal	VarChar2(1)
In Process Data	InProcessData	VarChar2(1)
Full Geometry	FullGeometry	VarChar2(1)
Urban	Urban	VarChar2(1)
Route Type	Route_Type	VarChar2(1)
Direction On Sign	DirOnSign	VarChar2(1)
Explicatable	Explicatable	VarChar2(1)
Name on Road Sign	NameOnRoad Sign	VarChar2(1)
Postal Name	PostalName	VarChar2(1)

Attribute	Field Name	Format
Stale Name	StaleName	VarChar2(1)
Vanity Name	VanityName	VarChar2(1)
Junction Name	JunctionName	VarChar2(1)
Exit Number	ExitName	VarChar2(1)
Number Of Address Ranges	NumAddrRanges	Number(2)
Scenic Route	Scenic_Route	VarChar2(1)
Scenic Route Name	Scenic_Name	VarChar2(1)
To Extended Lanes	To_X_Lanes	Decimal(10,0)
From Extended Lanes	Fr_X_Lanes	Decimal(10,0)
Four-Wheel Drive	FourWheelDr	Char(1)
Coverage Indicator	CoverInd	Char(2)
Geometry	Geometry	SDO_GEOMETRY

5.4.6 Alternate Street Address (AltStreets)

The AltStreets (.dbf) files represent the Alternate Streets Address layer.

Display Graphics

The Alternate Street Address layer does not have any graphic objects associated with the data.

Attributes and Structure

The Alternate Street Address layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Street Name	Street_Name	VarChar2(80)
Feature ID	Feature_ID	Number(10)
Street Name Language Code	St_LangCode	VarChar2(3)
Street Name Prefix	StNm_Pref	VarChar2(2)
Street Type Before	StType_Before	VarChar2(30)
Street Name Base	StNm_Base	VarChar2(35)

Attribute	Field Name	Format
Street Name Suffix	StNm_Suff	VarChar2(2)
Street Type After	StTyp_After	VarChar2(30)
Street Type Attached	StType_Attached	VarChar2(1)
Address Type	Address_Type	VarChar2(1)
Left Side Reference Address	Left_RefAddr	VarChar2(10)
Left Side Non-Reference Address	Left_NonRefAddr	VarChar2(10)
Left Address Scheme	Left_AddrScheme	VarChar2(1)
Left Address Format	Left_AddrFormat	VarChar2(1)
Right Side Reference Address	Right_RefAddress	VarChar2(10)
Right Side Non-Reference Address	Right_NonRefAddr	VarChar2(10)
Right Address Scheme	Right_AddrScheme	VarChar2(1)
Right Address Format	Right_AddrFormat	VarChar2(1)
Route Type	Route_Type	VarChar2(1)
Direction On Sign	DirOnSign	VarChar2(1)
Explicatable	Explicatable	VarChar2(1)
Name on Road Sign	NameOnRoad Sign	VarChar2(1)
Postal Name	PostalName	VarChar2(1)
Stale Name	StaleName	VarChar2(1)
Vanity Name	VanityName	VarChar2(1)
Junction Name	JunctionName	VarChar2(1)
Exit Number	ExitName	VarChar2(1)
Number Of Address Ranges	NumAddrRanges	Number(2)
Scenic Route Name	Scenic_Name	VarChar2(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.7 Railroads (NTC_RailRds)

The RailRds table represents the Railroads layer.

Indexes Provided (Typical Install)

NTC_RAILRDS_SIN

NTC_RAILRDS_RIN (indexed on field LINK_ID)

Attributes and Structure

The Railroads layer contains the following attributes. Note that a single segment of a railroad is represented by multiple line or polyline objects when it is associated with multiple railroad names.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Railway Name	Railway_Name	VarChar2(35)
Railway Name Language Code	Lang_Code	VarChar2(3)
Bridge	Bridge	VarChar2(1)
Tunnel	Tunnel	VarChar2(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.8 Signs (NTC_Signs)

The Signs table represents the Signs layer.

Indexes Provided (Typical Install)

NONE

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Destination Link ID	Destination_LinkID	Number(10)
Sign ID	SignID	Number(10)
Sequence Number	Seq_Number	Number(4)
Exit Number	Exit_Number	VarChar2(8)
Branch Route ID	Branche_RouteID	VarChar2(20)
Branche Route Direction	Brance_RouteDir	VarChar2(1)
Sign Text Type	Sign_TextType	VarChar2(1)

Attribute	Field Name	Format
Sign Text	Sign_Text	VarChar2(60)
Sign Language Code	Lang_Code	VarChar2(3)
Toward Route ID	Toward_RouteID	VarChar2(20)
Straight On	Straight_On	VarChar2(1)

5.4.9 Condition/Driving Manoeuvres (NTC_Cdms)

The Cdms table represents the Condition/Driving Manoeuvres layer.

Index Provided (Typical Install)

NTC_CDMS_RIN (indexed on field LINK_ID)

Attributes and Structure

The Condition/Driving Manoeuvres layer contains the following attributes. When there are multiple restricted manoeuvre links associated with a condition on a link then multiple records will be found in this layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Condition ID	Condition_ID	Number(10)
Condition Type	Condition_Type	Number(5)
Condition Value	Condition_Value1	VarChar2(30)
Condition Value 2	Condition_Value2	VarChar2(15)
Condition Value 3	Condition_Val3	VarChar2(30)
End of Link	End_Of_Link	VarChar2(1)
AR-Auto	AR_Auto	VarChar2(1)
AR-Bus	AR_Bus	VarChar2(1)
AR-Taxis	AR_Taxis	VarChar2(1)
AR-Carpools	AR_Carpools	VarChar2(1)
AR-Pedestrians	AR_Pedestrians	VarChar2(1)
AR-Trucks	AR_Trucks	VarChar2(1)
AR-Through Traffic	AR_ThroughTraffic	VarChar2(1)
AR-Deliveries	AR_Deliveries	VarChar2(1)

Attribute	Field Name	Format
AR-Emergency Vehicles	AR_Emer_Veh	VarChar2(1)

5.4.10 Condition/Driving Manoeuvres - Date/Time Modifiers (NTC_CdmDtmod)

The CdmDtmod table represents the Condition/Driving Manoeuvre - Date/Time Modifiers layer.

Index Provided (Typical Install)

NTC_CDMSDTMOD_RIN (indexed on field LINK_ID)

Attributes and Structure

The Condition/Driving Manoeuvre - Date/Time Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Condition ID	Condition_ID	Number(10)
Date/Time Modifier (DTM) Type	DateTime_Type	VarChar2(1)
Exclude Date	Exclude_Date	VarChar2(1)
From End	FromEnd	VarChar2(1)
Reference Date	Reference_Date	VarChar2(8)
Expiration Date	Expiration_Date	VarChar2(8)
Start Time	StartTime	VarChar2(4)
End Time	EndTime	VarChar2(4)

5.4.11 Condition Modifiers (NTC_CndMod)

The Condition Modifiers layer contains information about the restricted access conditions as well as driver alert conditions. The modifier value field may contain a coded value or a value string.

Display Graphics

The Condition Modifiers layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)
Modifier Type	Modifier_Type	Decimal(10,0)
Modifier Value	Modifier_Value	Decimal(10,0)

5.4.12 Condition Lane Template (NTC_CndLn)

The Condition Lane Template layer contains the values of the lane representation for HOV lanes. A row exists in this table only if a lane condition exists. Lane numbering is based on direction of travel with 1 being the innermost lane (left for right-side driving countries such as the US, and right for leftside driving countries such as the UK). Y/N values are only published for the number of actual lanes defined for the specified direction; all other lane columns will be blank.

Display Graphics

The Condition Lane Template layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Lane Template layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)
Lane 1	Lane_1	Char(1)
Lane 2	Lane_2	Char(1)
Lane 3	Lane_3	Char(1)
Lane 4	Lane_4	Char(1)
Lane 5	Lane_5	Char(1)
Lane 6	Lane_6	Char(1)
Lane 7	Lane_7	Char(1)
Lane 8	Lane_8	Char(1)
Lane 9	Lane_9	Char(1)
Lane 10	Lane_10	Char(1)
Lane 11	Lane_11	Char(1)

Attribute	Field Name	Format
Lane 12	Lane_12	Char(1)
Lane 13	Lane_13	Char(1)
Lane 14	Lane_14	Char(1)
Lane 15	Lane_15	Char(1)
Lane 16	Lane_16	Char(1)

5.4.13 Condition Lane Traversal (NTC_CndLaneTrav)

The Condition Lane Traversal layer contains the lane-lane connectivity associated with a Lane Traversal condition. (The Lane Traversal condition is published in the regular Condition/Driving Maneouvres (CDMS) layer. The standard model (RDM/Maneouvre Links, RDMS layer) is used to publish links involved in the Lane Traversal condition.

Display Graphics

The Condition Lane Traversal layer does not have any graphic objects associated with the data.

Attributes and Structure

The Condition Modifiers layer contains the following attributes.

Attribute	Field Name	Format
Condition ID	Condition_ID	Decimal(10,0)
Source Lane Number	S_Lane_Nr	Decimal(2,0)
Source Travel Direction	S_Dir_Trav	Char(1)
Destination Lane Number	D_Lane_Nr	Decimal(2,0)
Destination Travel Direction	D_Dir_Trav	Char(1)

5.4.14 Restricted Driving Manoeuvres - Manoeuvre Links (NTC_Rdms)

The Restricted Driving Manoeuvres – Manoeuvre Links layer contains information about all the manoeuvre links associated with a Condition/Driving Manoeuvre. This layer is essential when working with a Condition/Driving Manoeuvre that includes multiple links (e.g. an access restriction that applies to more than one link when calculating a route). This layer is used for route calculation in conjunction with the Restricted Driving Manoeuvres layer. The table ONLY contains conditions that involve two (2) or more links.

The Rdms table represents the Restricted Driving Manoeuvres - Manoeuvre Links layer.

Index Provided (Typical Install)

NTC_RDMS_RIN (indexed on field LINK_ID)

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Condition ID	Condition_ID	Number(10)
Manoeuvre Link ID	Manoeuvre_LinkID	Number(10)
Sequence Number	Seq_Number	Number(4)

5.4.15 Traffic (NTC_Traffic)

The Traffic table represent the Traffic layer.

Index Provided (Typical Install)

NTC_TRAFFIC_RIN (indexed on Field LINK_ID)

Attributes and Structure

The Traffic layer contains the following attributes. Note that for countries with multiple providers, there will be links having multiple traffic codes. Using the Location Database Number it is possible to be able to find the set of Traffic Codes for a specific provider. Please refer to the Product Release Notes for information about traffic providers and the values assigned to them.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Traffic Code	TrafficCode	VarChar2(10)

5.4.16 Z-Levels (NTC_Zlevels)

The Zlevels table represents the Z-Levels layer.

Indexes Provided (Typical Install)

NTC_ZLEVELS_SIN

NTC_ZLEVELS_RIN (indexed on field LINK_ID)

Attributes and Structure

The Z-Levels layer contains the following attributes. Note that a single intersection is represented by multiple point objects when it connects with multiple line or polyline street segments.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Point Number	Point_Number	Number(4)
Node ID	Node_ID	Number(10)
Z-Level	Z_Level	Number(2)
Intersection	Intersection	VarChar2(1)
Aligned	Aligned	VarChar2(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.17 Zones (NTC_Zones)

The Zones table represents the Zones layer.

Index Provided (Typical Install)

NTC_ZONES_RIN (indexed on file LINK_ID)

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
Zone ID	Zone_ID	Number(10)
Zone Side	Side	VarChar2(1)

5.4.18 Oceans (NTC_Oceans)

The Oceans table represents the Oceans layer.

Index Provided (Typical Install)

NTC_OCEANS_SIN

Attributes and Structure

The Oceans layer contains the following attributes.

Attribute	Field Name	Format
Ocean ID	Polygon_ID	Number(10)
Ocean Name	Polygon_Name	VarChar2(80)
Ocean Name Language Code	Name_LangCode	VarChar2(3)
Ocean Description	Feature_Type	VarChar2(40)
Detailed City	Detailed_Cty	Char(1)
Display Class	Disp_Class	Char(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.19 Administrative Area Boundaries - 1 (NTC_Adminbndy1)

The NTC_Adminbndy1 table represents the Administrative Area Boundaries (1) layer.

Index Provided (Typical Install)

NTC_ADMINBNDYA_SIN

Attributes and Structure

The Administrative Area Boundaries (1) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10)
Area ID	Area_ID	Number(10)
Admin Area Name	Polygon_Name	VarChar2(80)
Admin Area Name Language Code	Name_LangCode	VarChar2(3)

Attribute	Field Name	Format
Admin Area Description	Feature_type	VarChar2(40)
Detailed City	Detailed_City	Char(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.20 Administrative Area Boundaries - 2 (NTC_Adminbndy2)

The NTC_Adminbndy2 table represents the Administrative Area Boundaries (2) layer.

Index Provided (Typical Install)

NTC_ADMINBNY2_SIN

Attributes and Structure

The Administrative Area Boundaries (2) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10)
Area ID	Area_ID	Number(10)
Admin Area Name	Polygon_Name	VarChar2(80)
Admin Area Name Language Code	Name_LangCode	VarChar2(3)
Admin Area Description	Feature_type	VarChar2(40)
Detailed City	Detailed_City	Char(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.21 Administrative Area Boundaries - 3 (NTC_Adminbndy3)

The Adminbndy3 table represents the Administrative Area Boundaries (3) layer.

Index Provided (Typical Install)

NTC_ADMINBNDYA_SIN

Attributes and Structure

The Administrative Area Boundaries (3) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10)
Area ID	Area_ID	Number(10)
Admin Area Name	Polygon_Name	VarChar2(80)
Admin Area Name Language Code	Name_LangCode	VarChar2(3)
Admin Area Description	Feature_type	VarChar2(40)
Detailed City	Detailed_City	Char(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.22 Administrative Area Boundaries - 4 (NTC_Adminbndy4)

The Adminbndy4 table represents the Administrative Area Boundaries (4) layer.

Index Provided (Typical Install)

NTC_ADMINBNDYB_SIN

Attributes and Structure

The Administrative Area Boundaries (4) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10)
Area ID	Area_ID	Number(10)
Admin Area Name	Polygon_Name	VarChar2(80)
Admin Area Name Language Code	Name_LangCode	VarChar2(3)
Admin Area Description	Feature_type	VarChar2(40)
Detailed City	Detailed_City	Char(1)

Attribute	Field Name	Format
Geometry	Geometry	SDO_GEOMETRY

5.4.23 Administrative Area Boundaries - 5 (NTC_Adminbndy5)

The Adminbndy5 table represents the Administrative Area Boundaries (5) layer

Index Provided (Typical Install)

NTC_ADMINBNDYC_SIN

Attributes and Structure

The Administrative Area Boundaries (5) layer contains the following attributes. Note that an Administrative Area Boundary is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10)
Area ID	Area_ID	Number(10)
Admin Area Name	Polygon_Name	VarChar2(80)
Admin Area Name Language Code	Name_LangCode	VarChar2(3)
Admin Area Description	Feature_type	VarChar2(40)
Detailed City	Detailed_City	Char(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.24 Administrative Area (NTC_AdminArea)

The AdminArea table represents the Administrative Area layer.

Index Provided (Typical Install)

None.

Attributes and Structure

The Administrative Area contains the following attributes.

Attribute	Field Name	Format
Admin Area ID	Polygon_ID	Number(10)
Area ID	Area_ID	Number(10)
Number of Area Ids	Num_Area_Ids	Number(2)

5.4.25 Cartographic Country (NTC_CartoCountry)

The NTC_CartoCountry table represents the Cartographic Country layer.

Indexes Provided (Typical Install)

NTC_CARTOCOUNT_SIN

NTC_CARTOCOUNT_RIN

Attributes and Structure

The Cartographic Country layer contains the following attributes.

Attribute	Field Name	Format
Cartographic Country ID	Link_ID	Number(10)
Cartographic Country Left Name	Left_Name	VarChar(35)
Cartographic Country Left Language Code	Left_Name_LangCode	VarChar(3)
Cartographic Country Right Name	Right_Name	VarChar(35)
Cartographic Country Right Language Code	Right_Name_LangCode	VarChar(3)
Detailed City	Detailed_City	VarChar(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.26 Cartographic State (NTC_CartoState)

The NTC_CartoState table represents the Cartographic State layer.

Indexes Provided (Typical Install)

NTC_CARTOCOUNT_SIN

NTC_CARTOCOUNT_RIN

Attributes and Structure

The Cartographic State layer contains the following attributes.

Attribute	Field Name	Format
Cartographic State ID	Link_ID	Number(10)
Cartographic State Left Name	Left_Name	VarChar(35)
Cartographic State Left Language Code	Left_Name_LangCode	VarChar(3)
Cartographic State Right Name	Right_Name	VarChar(35)
Cartographic State Right Language Code	Right_Name_LangCode	VarChar(3)
Detailed City	Detailed_City	VarChar(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.27 Waterway Polygons, Waterway Segments (NTC_WaterWys)

The WaterWys table represents the Waterway Polygons and Segments layer.

Indexes Provided (Typical Install)

NTC_WATERWYS_SIN

NTC_WATERWYS_BIN (indexed on field FEATURE_TYPE)

Attributes and Structure

The Waterway Polygons and Segments layer contains the following attributes. Note that a Waterway is represented by multiple region, line, or polyline objects when it has names in multiple languages.

Attribute	Field Name	Format
Waterway ID	Polygon_ID	Number(10)
Waterway Name	Polygon_Name	VarChar2(80)
Waterway Language Code	Name_LangCode	VarChar2(3)
Waterway Description	Feature_Type	VarChar2(40)
Detailed City	Detailed_City	Char(1)
Display Class	Disp_Class	Char(1)

5.4.28 Building/Landmark Features (NTC_Landmark)

The NTC_Landmark table represents the Building/Lanmark Features layer.

Indexes Provided (Typical Install)

NTC_LANDMARK_SIN

NTC_LANDMARK_BIN (indexed on field FEATURE_TYPE)

Attributes and Structure

The Building/Landmark Features layer contains the following attributes. Note that a Building/ Landmark feature is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Building/Landmark ID	Polygon_ID	Number(10,0)
Building/Landmark Name	Polygon_Name	VarChar(80)
Building/Landmark Language Code	Name_LangCode	VarChar(3)
Building/Landmark Description	Feature_Type	VarChar(40)
Delailed City	Detailed_City	VarChar(1)
Admin Feature Code	Feature_Code	Number(10,0)
Building Height	Height	Number(3,0)
Geometry	Geometry	SDO_GEOMETRY

5.4.29 Land Use Features A (NTC_LandUseA)

Land Use Features (A) contains polygons that represent various land usage features found within a coverage area. These include Airports, Beaches, Cemeteries, Hospitals, Industrial Complexes, Military Bases, Parks, Park in Water, National Monuments, Public Use Areas, Colonias, Shopping Centres, Sports Complexes, Undefined Traffic Areas, University/Colleges, Woodlands, Colonias, and Neighborhoods.

Indexes Provided (Typical Install)

NTC_LANDUSEA_SIN

NTC_LANDUSEB_BIN (indexed on field FEATURE_TYPE)

Attributes and Structure

The Land Use Features A layer contains the following attributes. Note that a Land Usage is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Land Use ID	Polygon_ID	Number(10)
Land Use Name	Polygon_Name	VarChar2(80)
Land Use Language Code	Name_LangCode	VarChar2(3)
Land Use Description	Feature_Type	VarChar2(40)
Detailed City	Detailed_City	Char(1)
Feature Code	Feature_Code	Number(7,0)
Display Class	Disp_Class	Char(1)
Geometry	Geometry	SDO_GEOMETRY

5.4.30 Land Use Features B (NTC_LandUseB)

The LandUseB table represents the Land Use Features B layer. Land Use B features include Aircraft Roads, Golf Courses, Native American Reservations, and Pedestrian Zones.

Indexes Provided (Typical Install)

NTC_LANDUSEB_SIN

NTC_LANDUSEB_BIN (indexed on field FEATURE_TYPE)

Attributes and Structure

The Land Use Features B layer contains the following attributes. Note that a Land Usage is represented by multiple region objects when it has names in multiple languages.

Attribute	Field Name	Format
Land Use ID	Polygon_ID	Number(10)
Land Use Name	Polygon_Name	VarChar2(80)
Land Use Language Code	Name_LangCode	VarChar2(3)
Land Use Description	Feature_Type	VarChar2(40)
Detailed City	Detailed_City	Char(1)
Feature Code	Feature_Code	Number(7,0)

Attribute	Field Name	Format
Geometry	Geometry	SDO_GEOMETRY

5.4.31 Islands (NTC_Islands)

The Islands table represents the Islands layer.

Index Provided (Typical Install)

NTC_ISLANDS_SIN

Attributes and Structure

The Islands layer contains the following attributes.

Attribute	Field Name	Format
Island ID	Polygon_ID	Number(10)
Island Name	Polygon_Name	VarChar2(80)
Island Name Language Code	Name_LangCode	VarChar2(3)
Island Description	Feature_Type	VarChar2(40)
Detailed City	Detailed_City	Char(1)

5.4.32 Named Places (NTC_NamedPlc)

The NamedPlc table represents the Named Places layer.

Indexes Provided (Typical Install)

NTC_NAMEDPLC_SIN

NTC_NAMEDPLC_BIN(indexed on field FACILITY_TYPE)

NTC_NAMEDPLC_RIN(indexed on field LINK_ID)

Attributes and Structure

The Named Places layer contains the following attributes. Note that a Named Place is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.‘

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Named Place Name	Poi_Name	VarChar2(35)
Named Place Name Language Code	PoiNm_LangCode	VarChar2(3)
Named Place Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Population	Population	Number(10)
Capital	Capital	VarChar2(1)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actuall_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.33 Hamlets (NTC_Hamlet)

The ntc_hamlet table represents the Hamlets layer.

Indexes Provided (Typical Install)

NTC_HAMLET_SIN

NTC_HAMLET_BIN(indexed on field FACILITY_TYPE)

NTC_HAMLET_RIN(indexed on field LINK_ID)

Attributes and Structure

The Hamlets layer contains the following attributes. Note that a Hamlet is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Hamlet Name	Poi_Name	VarChar2(35)
Hamlet Name Language Code	PoiNm_LangCode	VarChar2(3)
Hamlet Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)

Attribute	Field Name	Format
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.34 Hospitals (NTC_Hospital)

The Hospital table represents the Hospitals layer.

Indexes Provided (Typical Install)

NTC_HOSPITAL_SIN

NTC_HOSPITAL_BIN(indexed on field FACILITY_TYPE)

NTC_HOSPITAL_RIN(indexed on field LINK_ID)

Attributes and Structure

The Hospitals layer contains the following attributes. Note that a hospital is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Hospital Name	Poi_Name	VarChar2(35)
Hospital Name Language Code	PoiNm_LangCode	VarChar2(3)
Hospital Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)

Attribute	Field Name	Format
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.35 Parks and Recreation (NTC_ParkRec)

The Parks and Recreation layer contains Amusement Parks, Golf Courses, Museums, Sports Complexes, Marina, Public Sport Airports, Bowling Centres, Park/Recreation areas, Casinos, Sports Centres, and Ice Skating Rinks within the NAVSTREETS coverage area.

Amusement Parks These include locally known parks that contains rides or other entertainment that may be based on a central theme.

Golf Courses These include all private and public golf courses.

Museums These include museums of regional importance that are open to the public.

Sports Complexes These include all multi-use indoor arenas that seat more than 1,000 people, multi-use outdoor arenas that seat more than 10,000 people, and race tracks.

Marinas These are specific to yacht harbours and public docking facilities. (North America only.)

Public Sport Airports These include all airfields designated for recreational purposes (e.g. to fly hot air balloons, use gliders, get flying lessons, fly private airplanes). This category is exclusive to Europe.

Bowling Centres These include major bowling centres that are regionally known and have more than six bowling alleys. This category is exclusive to Europe.

Park/ Recreation Areas These include areas of public land that are preserved and maintained for recreational use (public parks and recreation parks).

Casinos IIn the United States, these include any variety of gambling and gaming establishments ranging from the large casinos in Las Vegas to riverboat gambling and card rooms that draw regionally. In Europe and Canada, NAVSTREETS only includes casinos that are licensed by the government.

Sports Centres These include all combined sport centres, swimming and tennis facilities, and famous public fitness centres that also offer other facilities like sauna and massage. This category is exclusive to Europe.

Ice Skating Rinks These include all indoor and outdoor facilities designed for all types of ice skating. This category is exclusive to Europe.

Indexes Provided (Typical Install)

NTC_PARKREC_SIN

NTC_PARKREC_BIN(indexed on field FACILITY_TYPE)

NTC_PARKREC_RIN(indexed on field LINK_ID)

Attributes and Structure

The Parks and Recreation layer contains the following attributes. Note that a Park/Recreation facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Park/Recreation Name	Poi_Name	VarChar2(35)
Park/Recreation Name Language Code	PoiNm_LangCode	VarChar2(3)
Park/Recreation Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)

Attribute	Field Name	Format
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.36 Transportation Hubs (NTC_TranHubs)

The Transportation Hubs layer contains all Airports, Bus Stations, Train Stations, and Ferry Terminals within the NAVSTREETS coverage area.

Airports These include all national public airports in Europe (more than 300,000 passengers per year), all FAA certified airports in the United States, and all public airports in Canada.

Bus Stations These are facilities that function as a hub for a bus service network, including those that provide park and ride facilities, and long distance and/or inter-city bus service.

Train Stations These include all facilities that function as a hub for passengers and goods traveling between metropolitan areas along a railway network.

Ferry Terminals This category is specific to structures established and maintained by ferry services that transport passengers and automotive vehicles by rail or water.

Public Transit Stop These are points where passengers can board a public transportation vehicle.

Public Transit Access These facilities represent multiple entrances for one Public Transit Stop.

Taxi Stand These are designated areas for queuing, loading and unloading taxis.

Commuter Rail Stations These are facilities established to provide inter-city and commuter rail transportation. This includes all metro stations in the UK.

Indexes Provided (Typical Install)

NTC_TRANSHUBS_SIN

NTC_TRANSHUBS_BIN(indexed on field FACILITY_TYPE)

NTC_TRANSHUBS_RIN(indexed on field LINK_ID)

Attributes and Structure

The Transportation Hubs layer contains the following attributes. Note that a transportation hub is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer

.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)

Attribute	Field Name	Format
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Airport Sub Type	Airport_Sub_Type	VarChar(1)
Transit Access Level	T_Acc_Lev	VarChar2(1)
Transit Access Type	T_Acc_Type	VarChar2(1)
Transit Access Method	T_Acc_Meth	VarChar2(1)

5.4.37 Travel Destinations (NTC_TravDest)

The TravDest table represents the Travel Destinations layer.

Indexes Provided (Typical Install)

NTC_TRAVDEST_SIN

NTC_TRAVDEST_BIN(indexed on field FACILITY_TYPE)

NTC_TRAVDEST_RIN(indexed on field LINK_ID)

Attributes and Structure

The Travel Destination layer contains the following attributes. Note that a travel destination is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Rest Area Type	Rest_Area_Type	VarChar2(30)

5.4.38 Shopping (NTC_Shopping)

The Shopping table represents the Shopping layer.

Indexes Provided (Typical Install)

NTC_SHOPPING_SIN

NTC_SHOPPING_BIN(indexed on field FACILITY_TYPE)

NTC_SHOPPING_RIN(indexed on field LINK_ID)

Attributes and Structure

The Shopping layer contains the following attributes. Note that a shopping destination is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.39 Restaurants (NTC_Restrnts)

The Restrnts table represents the Restaurants layer.

Indexes Provided (Typical Install)

NTC_RESTRNTS_SIN

NTC_RESTRNTS_BIN(indexed on field FACILITY_TYPE)

NTC_RESTRNTS_RIN(indexed on field LINK_ID)

Attributes and Structure

The Restaurant layer contains the following attributes. Note that a restaurant is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Cuisine Type	Food_Type	VarChar2(35)

Attribute	Field Name	Format
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.40 Entertainment (NTC_Entertn)

The Entertn table represents the Entertainment layer.

Indexes Provided (Typical Install)

NTC_ENTERTN_SIN

NTC_ENTERTN_BIN(indexed on field FACILITY_TYPE)

NTC_ENTERTN_RIN(indexed on field LINK_ID)

Attributes and Structure

The Entertainment layer contains the following attributes. Note that an entertainment destination is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)

Attribute	Field Name	Format
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.41 Auto Maintenance, Service, and Petrol (NTC_AutoSvc)

The AutoSvc table represents the Auto Maintenance, Service, and Petrol layer.

Indexes Provided (Typical Install)

NTC_AUTOSVC_SIN

NTC_AUTOSVC_BIN(indexed on field FACILITY_TYPE)

NTC_AUTOSVC_RIN(indexed on field LINK_ID)

Attributes and Structure

The Auto Maintenance, Service, and Petrol layer contains the following attributes. Note that an auto maintenance, service, or petrol facility is represented by multiple point objects when it has

names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)
Open 24 Hours	Open_24_Hours	VarChar(1)
Diesel	Diesel	VarChar(1)

5.4.42 Financial Solutions (NTC_FinInsts)

The FinInsts table represents the Financial Institutions layer.

Indexes Provided (Typical Install)

NTC_FININSTS_SIN

NTC_FININSTS_BIN(indexed on field FACILITY_TYPE)

NTC_FININSTS_RIN(indexed on field LINK_ID)

Attributes and Structure

The Financial Institutions layer contains the following attributes. Note that a financial institution is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)

Attribute	Field Name	Format
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.43 Business Facilities (NTC_Business)

The Business table represents the Business Facilities layer.

Indexes Provided (Typical Install)

NTC_BUSINESS_SIN

NTC_BUSINESS_BIN(indexed on field FACILITY_TYPE)

NTC_BUSINESS_RIN(indexed on field LINK_ID)

Attributes and Structure

The Business Facilities layer contains the following attributes. Note that a business facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)

Attribute	Field Name	Format
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.44 Community Service Centres (NTC_CommSvc)

The Community Service Centres layer contains all civic/community centres, city halls, court houses, post offices, and police stations within the NAVSTREETS coverage area.

Civic/ Community Centre — These include all civic or community centres (public buildings used for community events). In Europe, this is specific to civic or community centres with a regional function.

City Hall — These include the city hall of each municipality or settlement within the NAVSTREETS coverage area. (North America only.)

Court House — These include court houses at any level of government. (North America only.)

Police Station — These include any police stations within the NAVSTREETS coverage area. (North America only.)

Place of Worship — These include all places of worship within the NAVSTREETS coverage area.

Post Office — These include all facilities which provide mail services.

The CommSvc table represents the Community Service Centres layer.

Indexes Provided (Typical Install)

NTC_COMMSVC_SIN

NTC_COMMSVC_BIN(indexed on field FACILITY_TYPE)

NTC_COMMSVC_RIN(indexed on field LINK_ID)

Attributes and Structure

The Community Service Centres layer contains the following attributes. Note that a community service centre is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Building Type	Building_Type	VarChar2(30)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.45 Educational Institutions (NTC_EduInsts)

The EduInsts table represents the Educational Institutions layer.

Indexes Provided (Typical Install)

NTC_EDUINSTS_SIN

NTC_EDUINSTS_BIN(indexed on field FACILITY_TYPE)

NTC_EDUINSTS_RIN(indexed on field LINK_ID)

Attributes and Structure

The Educational Institutions layer contains the following attributes. Note that an educational institution is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)

Attribute	Field Name	Format
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.46 Parking (NTC_Parking)

The Parking table layer represents the Parking layer.

Indexes Provided (Typical Install)

NTC_PARKING_SIN

NTC_PARKING_BIN(indexed on field FACILITY_TYPE)

NTC_PARKING_RIN(indexed on field LINK_ID)

Attributes and Structure

The Parking layer contains the following attributes. Note that a parking facility is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)

Attribute	Field Name	Format
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.47 Border Crossing (NTC_BordCross)

The BordCross table represents the Border Crossing layer.

Indexes Provided (Typical Install)

NTC_BORDCROSS_SIN

NTC_BORDCROSS_BIN (indexed on field FACILITY_TYPE)

NTC_BORDCROSS_RIN(indexed on field LINK_ID)

Attributes and Structure

The Border Crossing layer contains the following attributes. Note that a border crossing is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10)

Attribute	Field Name	Format
POI ID	Poi_ID	Number(10)
Facility Type	Facility_Type	Number(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.48 Miscellaneous Categories (NTC_MiscCategories)

The Miscellaneous Categories layer contains facilities within the NAVSTREETS coverage area that cannot be categorized into any other layer.

The NTC_MiscCategories table represents the Miscellaneous Categories layer.

Indexes Provided (Typical Install)

NTC_MISCCATEGORIES_SIN

NTC_MISCCATEGORIES_BIN(indexed on field FACILITY_TYPE)

NTC_MISCCATEGORIES_RIN(indexed on field LINK_ID)

Attributes and Structure

The Miscellaneous Categories layer contains the following attributes. Note that a miscellaneous POI is represented by multiple point objects when it has names in multiple languages. A full description of Facility Type codes and Chain ID codes can be obtained from the Metadata-Reference Classes layer..

Attribute	Field Name	Format
Link ID	Link_ID	Decimal(10)
POI ID	Poi_ID	Decimal(10)
Facility Type	Facility_Type	Decimal(5)
Facility Name	Poi_Name	VarChar2(35)
Facility Name Language Code	PoiNm_LangCode	VarChar2(3)
Facility Name Type	Poi_NameType	VarChar2(1)
Street Number	Poi_St_Number	VarChar2(10)
Street Name	Street_Name	VarChar2(80)
Street Name Language Code	St_LangCode	VarChar2(3)
Side	Poi_St_Side	VarChar2(1)
Access Type	Access_Type	VarChar2(1)
Phone Number	Phone Number	VarChar2(15)
Chain ID	Chain_ID	Number(5)
National Importance	National_Importance	VarChar2(1)
Private	Private	VarChar2(1)
In Vicinity	In_Vicinity	VarChar2(1)
Number Parents	Number_Parents	Number(5)
Number Children	Number_Children	Number(5)
Vanity City	Vanity_City	VarChar2(35)
Actual Address	Actual_Address	VarChar2(110)
Actual Street Name	Act_St_Nam	Char(50)
Actual Street Number	Act_St_Num	Char(10)
Actual Admin Name	Act_Admin	Char(50)
Actual Postal Code	Act_Postal	Char(11)

5.4.49 Point Addresses (NTC_PntAddr)

The Point Addresses layer contains the individual house numbers for a link, represented as point objects.

The PntAddr table represents the Point Addresses layer.

Display Graphics

The Point Addresses layer has geometry associated with each point, but it does not have any graphic objects associated with the data.

Attributes and Structure

The Point Addresses layer contains the following attributes.

Attribute	Field Name	Format
Link ID	Link_ID	Number(10,0)
Point Address ID	Pt_Addr_ID	Number(10,0)
Side	Side	Char(1)
Feature ID	Featur_ID	Decimal(10,0)
Address	Address	Char(10)

5.4.50 Point Of Interest Association (NTC_PoiAssoc)

The NTC_PoiAssoc table represents the Point Of Interest Association layer.

Indexes Provided (Typical Install)

None

Attributes and Structure

The Point Of Interest Association contains the following attributes.

Attribute	Field Name	Format
Parent ID	Parent_ID	Number(10)
Child ID	Child_ID	Number(10)
Assoc Type	Assoc_Type	VarChar2(1)

5.4.51 Aggregated Feature (NTC_AggrFeature)

The Aggregated Feature layer contains general aggregation (grouping) of polygonal features used in the context of City Model data: Grouped Structures or Grouped Complexes.

The AggrFeature table represents the Aggregated Feature layer.

Display Graphics

The Aggregated Feature layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
Aggregated Feature Description	Feat_Type	Char(40)
Aggregation Type	Aggr_Type	Number(2,0)
Aggregated Feature Name	Aggr_Name	Char(35)
Aggregated Feature Language Code	Nm_LangCd	Char(3)
Associated POI ID	POI_ID	Number(10,0)
Number of Components	Num_Comp	Number(5,0)
Feature Code	Feat_Code	Number(7,0)
Number of Attachments	Num_Attach	Number(5,0)

5.4.52 Aggregated Feature Component (NTC_AggrFeatComp)

The Aggregated Feature Component layer defines the components included in an Aggregated Feature.

The AggrFeatComp table represents the Aggregated Feature Component layer.

Display Graphics

The Aggregated Feature Component layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature Component layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
Sequence Number	Seq_Num	Number(5,0)
Component Type	Comp_Type	Char(2)
Component ID	Comp_ID	Number(10,0)

5.4.53 Aggregated Feature File Association (NTC_AggrFeatFile)

The Aggregated Feature File Association layer defines the association of auxiliary files to an Aggregated Feature. The files are provided as auxiliary data outside the NAVSTREETS structure.

The AggrFeatFile table represents the Aggregated Feature File Association layer.

Display Graphics

The Aggregated Feature File Association layer does not have any graphic objects associated with the data.

Attributes and Structure

The Aggregated Feature File Association layer contains the following attributes.

Attribute	Field Name	Format
Aggregated Feature ID	Aggr_ID	Number(10,0)
File Type	File_Type	Number(2,0)
Attachment Type	Att_Type	Char(3)
File Name	File_Name	Char(150)

5.4.54 POI File Association (NTC_PoiFileAssoc)

The POI File Association layer defines the association of auxiliary files to a POI. The files are provided as auxiliary data outside the NAVSTREETS structure.

The PoiFileAssoc table represents the POI File Association layer.

Display Graphics

The POI File Association layer does not have any graphic objects associated with the data.

Attributes and Structure

The POI File Association layer contains the following attributes.

Attribute	Field Name	Format
POI ID	POI_ID	Number(10,0)
File Type	File_Type	Number(2,0)
Attachment Type	Att_Type	Char(3)
File Name	File_Name	Char(150)

5.4.55 Actual POI Location (ActPOILoc)

The Actual POI Location layer defines the actual position of a POI. Display coordinates are floating coordinates not positioned on any existent road network geometry. The files are provided as auxiliary data outside the NAVSTREETS structure.

Display Graphics

The Actual POI Location layer does not have any graphic objects associated with the data.

Attributes and Structure

The Actual POI Location contains the following attributes.

Attribute[1]	Field Name	Format
POI ID	Poi_ID	Number(10,0)
Facility Type	Fac_Type	Number(5)

1. A POI facility is represented by multiple point objects when it has names in multiple languages. The field Facility Type should be used to refer each entry in this layer to the correct main POI Layer. The POI ID should then be used to retrieve the POI Name in the main POI layer.

5.4.56 Risk Prone Area (RiskArea)

The Risk Prone Area layer contains polygons representing risk prone areas. The risks can include hurricanes, tornados, etc. This layer can aide in showing evacuation routes in the event of a natural disaster. This layer currently supports hurricane prone areas only.

The RiskArea table represents the Risk Prone Area layer.

The Risk Prone Area layer itself does not have a Zoom Min/Max setting. The Label Zoom Min/Max is 0/10 miles (0/16 kilometers).

Attributes and Structure

The Risk Prone Area layer contains the following attributes.

Attribute	Field Name	Format
Polygon ID	Polygon_ID	Number(10,0)
Polygon Name	Polygon_Name	VarChar(35)
Language Code	Name_LangCode	VarChar(3)
Feature Description	Feature_Type	VarChar(40)
Detailed City	Detailed_City	Char(1)
Admin Feature Code	Feature_Code	Number(10)
Severity Rating	Severity_Rating	VarChar(2)
Geometry	Geometry	SDO_GEOMETRY

5.4.57 Metadata - Reference Classes (NTC_MtdRef)

The MtdRef table represents the Metadata - Reference Classes layer.

Reference Class Descriptions

The Metadata - Reference Classes layer describes the following Reference Classes.

Name	Description/Attribute
AANAMTYP	Administrative Area Name Type
ADDRFMT	Address Format
ADDRSCH	Address Scheme
ADDRTYPE	Address Type
BEARING	Direction of Travel
CHAINID	Chain ID
CONDTYPE	Condition Type
CURRTYPE	Currency Type
DATETYPE	Date Type
DATUM	World Geodetic System of 1984
DIRSIGN	Direction on Sign
DIVLOC	Divider Location
DRIVSIDE	Driving Side
FACILITY	Facility Type
FEATURE	Feature Type
FUNCLASS	Function Class
HSENBFMT	House Number Format
LANECAT	Lane Category
LANGCODE	Language Code
LINKEND	Link End
POIACTYP	POI Access Type
POISIDE	POI Side
PONAMTYP	POI Name Type
PREFSUFF	Prefix/Suffix Street Type
RTETYPE	Route Type
SPEEDCAT	Speed Category
STRTYPE	Street Type

Name	Description/Attribute
TEXTTYPE	Sign Text Type
UOM	Unit of Measure
ZNNAMTYP	Zone Name Type
ZONETYPE	Zone Type

Attributes and Structure

Attribute	Field Name	Format
Reference Class	Reference_Class	VarChar2(10)
Code	Code	VarChar2(12)
Description	Description	VarChar2(40)
language Code	Lang_Code	VarChar2(3)

5.4.58 Metadata - Administrative Area (NTC_MtdArea)

The MtdArea table represents the Metadata - Administrative Area layer.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Area ID	Area_ID	Number(10)
Area Code 1	AreaCode_1	Number(5)
Area Code 2	AreaCode_2	Number(5)
Area Code 3	AreaCode_3	Number(5)
Area Code 4	AreaCode_4	Number(5)
Area Code 5	AreaCode_5	Number(5)
Area Code 6	AreaCode_6	Number(5)
Area Code 7	AreaCode_7	Number(5)
Administrative Level	Admin_Level	Number(1)
Area Name	Area_Name	VarChar2(35)
Area Name Language Code	Lang_Code	VarChar2(3)

Attribute	Field Name	Format
Area Name Type	Area_NameType	VarChar2(1)
Government Code	Govt_Code	Number(10)

5.4.59 Metadata - Zone Records (NTC_MtdZoneRec)

The MtdZoneRec table represents the Metadata - Zone Records layer.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Zone ID	Zone_ID	Number(10,0)
Zone Name	Zone_Name	VarChar2(35)
Language Code	Lang_Code	VarChar2(3)
Name Type	Zone_NameType	VarChar2(1)
Zone Type	Zone_Type	VarChar2(2)
Area ID	Area_ID	Number(10,0)

5.4.60 Metadata - File Identification (NTC_MtdFileId)

The MtdFileId table represents the Metadata - File Identification layer.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Copyright	Copyright	Char(52)
SIF+ Standard Creation Date	Sifplus_CreationDate	Decimal(6,0)
Database Version	Database_Version	Char(5)
SIF+ Standard Creation Time	Sifplus_CreationTime	Decimal(6,0)
GIS Software Version	Mi_Software_Ver	Char(5)
GIS File Version	Mi_FileFormat_Ver	Char(5)
Requested Area	Requested_Area	Char(30)

Attribute	Field Name	Format
DNDC Region	Region_ID	Char(5)
Datum	Datum	Char(5)

5.4.61 Metadata - Country Reference (NTC_MtdCntryRef)

The MtdCntryRef table represents the Metadata - Country Reference layer.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Government Code	Govt_Code	Number(10)
Unit of Measure	UnitOfMeasure	Char(1)
Maximum Admin Level	Max_AdminLevel	Number(1)
Currency Precision	Currency_Precision	Number(1)
House Number Format(	HouseNbrFormat	Char(1)
Driving Side	Driving_Side	Char(1)
Currency Type	Currency Type	Char(3)
Phone Country Code	Phone_CntryCode	Char(3)
AALevel 1 Feature Type	AALevel1_FeaType	Number(7)
AALevel 2 Feature Type	AALevel2_FeaType	Number(7)
AALevel 3 Feature Type	AALevel3_FeaType	Number(7)
AALevel 4 Feature Type	AALevel4_FeaType	Number(7)
AALevel 5 Feature Type	AALevel5_FeaType	Number(7)
AALevel 6 Feature Type	AALevel6_FeaType	Number(7)
AALevel 7 Feature Type	AALevel7_FeaType	Number(7)
AALevel 1 Address Flag	AALevel1_AddrFlag	Char(1)
AALevel 2 Address Flag	AALevel2_AddrFlag	Char(1)
AALevel 3 Address Flag	AALevel3_AddrFlag	Char(1)
AALevel 4 Address Flag	AALevel4_AddrFlag	Char(1)
AALevel 5 Address Flag	AALevel5_AddrFlag	Char(1)
AALevel 6 Address Flag	AALevel6_AddrFlag	Char(1)

Attribute	Field Name	Format
AALevel 7 Address Flag	AALevel7_AddrFlag	Char(1)
Admin Area 1 Description	AALevel1_Description	Char(18)
Admin Area 2 Description	AALevel2_Description	Char(18)
Admin Area 3 Description	AALevel3_Description	Char(18)
Admin Area 4 Description	AALevel4_Description	Char(18)
Admin Area 5 Description	AALevel5_Description	Char(18)
Admin Area 6 Description	AALevel6_Description	Char(18)
Admin Area 7 Description	AALevel7_Description	Char(18)

5.4.62 Metadata - (USER_SDO_GEOM_METADATA)

The Metadata table is required for the Oracle Spatial Object Model and will be included with data packaging. Please see the Oracle Help Guide for more information about the contents of this table.

Defaults values for Dimension information is as follows:

NAME: X; LOWER BOUND -180; UPPER BOUND +180; TOLERANCE 5.0E-1

NAME: Y; UPPER BOUND - 90; UPPER BOUND +90; TOLERANCE 5.0E-1

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Table Name	Table_Name	VarChar2(30)
Column Name	Column_Name	VarChar2(30)
Dimensions Information	Dim_Info	MDSYS_SDO_DIM_ARRAY
Projection	SRID	NUMBER

5.4.63 Metadata – Compound Reference (MtdCmpRef)

The Metadata - Compound Reference layer contains description information for the access restriction (HOV) condition modifiers. The MtdCmpRef table represents the Metadata – Compound Reference layer.

Display Graphics

The Metadata – Compound Reference layer does not have any graphic objects associated with the data.

Attributes and Structure

This layer contains the following attributes.

Attribute	Field Name	Format
Modifier Type	Modifier_Type	Decimal(10,0)
Modifier Value	Modifier_Value	Decimal(10,0)
Modifier Type Description	ModTypeDesc	Char(40)
Modifier Value Description	ModValDesc	Char(40)
Language Code	LangCode	Char(3)
Code	Code	Char(8)

Attributes

(This page intentionally left blank)

6.1 Introduction

This document describes all attributes in the NAVSTREETS database, they are listed in alpabetical order.

6.2 Overview

6.2.1 Access Automobiles

For Access Automobiles see: *6.2.3 Access Characteristics*.

6.2.2 Access Buses

For Access Buses see: *6.2.3 Access Characteristics*.

6.2.3 Access Characteristics

Definition Identifies the types of traffic allowed on a link.

Value Y - Is allowed

N - Not allowed

Length 1 character per ***Access Characteristic***

Type Boolean

Overview

Access Characteristic
Automobiles
Buses
Taxis
Carpools
Pedestrians
Trucks
Through Traffic
Deliveries
Emergency Vehicles

Usage

- The ***Access Characteristics*** enable correct Route Calculation and Map Display. For instance, if the link is ***Emergency Vehicle*** only, no other vehicles would be routed on the particular link.

- If a link has ***Through Traffic*** set to No then routing through that link with an ***Automobile*** is not permitted to reach a destination outside the no through traffic area. See *Figure 6-1*.

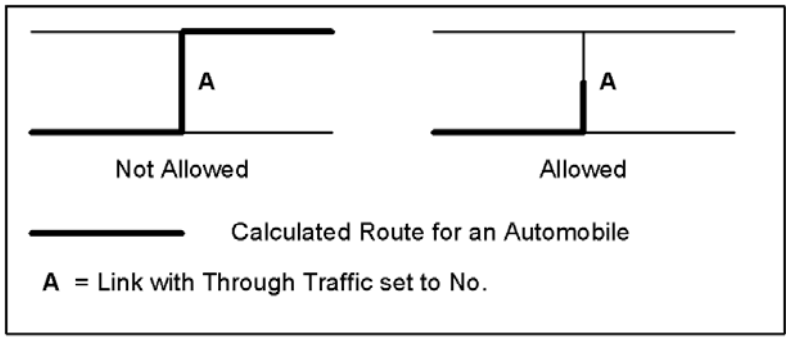


Figure 6-1

- Beside Route Calculation, links which are marked with ***Through Traffic*** = N may also be identified on a map with a special color or display pattern.

Specification

- The ***Access Characteristics*** are based on what is legally allowed on a link.

- Links receive ***Through Traffic*** = N when:
  - The link is internal to a parking lot.
  - There is a posted or legal restriction stating, for example, "No Through Traffic", "Residents Only", "Anlieger Frei", etc.
  - The road is on a military facility. (Some roads on military facilities do receive ***Through Traffic*** = Y.)

- ***Through Traffic*** only applies to ***Automobiles***. If ***Automobiles*** are not allowed at all on a link, ***Through Traffic*** = N.

- A link that is privately maintained does not automatically receive ***Through Traffic*** = N. In the real world, links exist that are privately maintained, but they can freely be used by all ***Automobiles***.

- ***Through Traffic*** is not set to N to reflect physical restrictions of the link, such as a dead end road.

- Referring to the *Figure 6-2* below, if the ***Through Traffic*** is set to N for links A and B, then all the links within the enclosed area (shown in bold) will have ***Through Traffic*** set to N, because they are only reachable via links A or B.

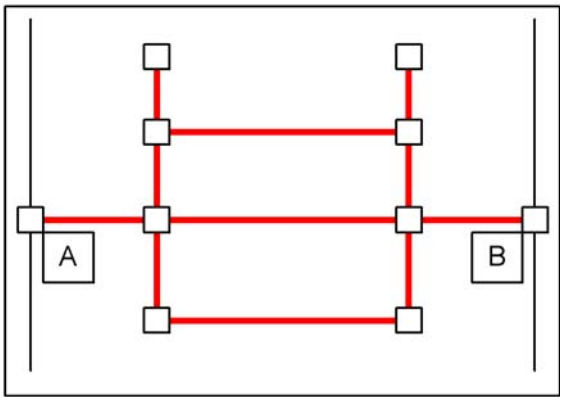


Figure 6-2

- For non-navigable links, all *Access Characteristics* are published as N.

6.2.4 Access Carpools

For Access Carpools see:*6.2.3 Access Characteristics*.

6.2.5 Access Deliveries

For Access Deliveries see:*6.2.3 Access Characteristics*.

6.2.6 Access Emergency Vehicles

For Access Emergency see:*6.2.3 Access Characteristics*.

6.2.7 Access Pedestrians

For Access Pedestrians see:*6.2.3 Access Characteristics*.

6.2.8 Access Restriction

Definition ***Access Restrictions*** are used to identify situations where specified types of vehicles are prohibited from travelling on the road at specific times. It also identifies which lane(s) allow access for HOV vehicles only, and provides requirements for accessing these lanes.

Usage ***Access Restriction*** conditions enable correct route calculation and map display. For example, if an ***Access Restriction*** exists that limits the access of automobiles for a specified time period, automobiles may be routed around that link for the duration of the restriction.

It can be used to determine which lanes are accessible to HOV vehicles only, and can also be used to identify the requirements for legally using the HOV lanes.

Specification

- This Condition Type is used in conjunction with a ***Date/Time Modifier***.
- The access characteristics in this record override the ***Access Characteristics*** on the link during the time period specified.

  For example, when a Carpool Only road (separately digitised), is closed to all traffic during non-commuting hours, then an Access Restriction is applied for the closed time. The condition applies to the types of traffic that are allowed when the road is open.

  Another example: In an area which is restricted to residents only (i.e. no thru traffic) between 20:00 and 08:00, the ***Access Restriction*** condition applies to ***Through Traffic*** = Y.

Seasonal Closures

Seasonally closed roads or ferries are represented with ***Access Restriction*** Conditions. Approximate date ranges, based on past closure dates, are created for these seasonally closed arterial roads. For example, Tioga Pass in the Sierra Nevada Mountains is closed approximately from November 1st through May 15th. An ***Access Restriction*** Condition (Condition Applies to all vehicle types allowed on the link as specified in the Link Basic Main Record) is applied with three ***Date/Time Modifiers*** for November 1st to May 15th. The three ***Date/Time Modifiers*** would be:

1. ***DTM Type*** = H

   Reference Date = 00110000

   End Date = 00120000

2. ***DTM Type*** = H

   Reference Date = 00010000

   End Date = 00040000

3. ***DTM Type*** = I

Reference Date = 00010005

End Date = 00150005

The ***Access Restriction*** Condition attribute of ***Condition Modifier 1*** = 1 (Approximate Seasonal Closure = Yes) is also applied. If there are definite dates for the seasonal closure ***Condition Modifier 1*** = 0 (Approximate Seasonal Closure = No) is applied.

When seasonally closed roads also have gates, only the ***Access Restriction*** Condition is coded; the ***Gate*** Condition is not published. See *Figure 6-3*.

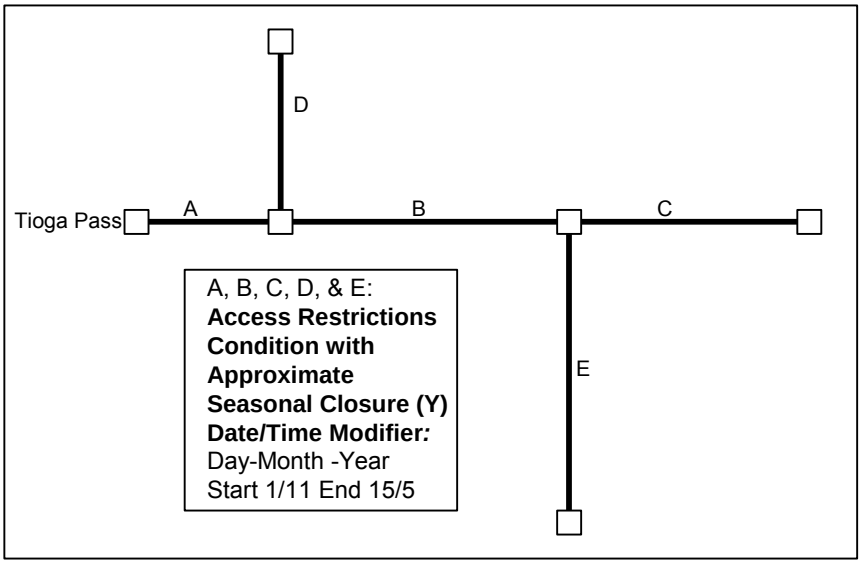


Figure 6-3

HOV Lanes

- HOV lane(s) is/are specified by the ***Access Characteristics*** at lane level in the ***Access Restriction*** condition. In case all lanes are open to HOV vehicles only, then the ***Access Restriction*** condition applies to all lanes.

- An HOV lane is coded with an ***Access Restriction*** condition which applies to all ***Access Characteristics*** = Yes except for Carpool = No, Bus = No (depending if they are allowed or not), and Emergency Vehicles = No.

- ***Date/Time Modifiers*** are coded to indicate specific time periods when the lane is open to HOV vehicles only, or to specify changes in the number of passengers required at certain hours of the day. Each unique combination of HOV lane open and number of passenngers is a separate Access Restriction Condition.

- Reversible HOV lanes are separately digitized, regardless of the type of divider (physical or painted) between the HOV lane and the other lanes. This is done to accommodate the reversible situation.

6.2.9 Access Taxis

For Access Taxis see:*6.2.3 Access Characteristics*.

6.2.10 Access Through Traffic

For Access Through Traffic see:*6.2.3 Access Characteristics*.

6.2.11 Access Trucks

For Access Trucks see:*6.2.3 Access Characteristics*.

6.2.12 Access Type

This field is no longer in use.

6.2.13 Actual Address

Definition The ***Actual Address*** represents the actual address but is different from the street address where the entrance of the POI is physically located.

Value

Length 100

Usage ***Actual Address*** allows the actual address of a POI to be displayed when the POI entrance is not physically located at that address.

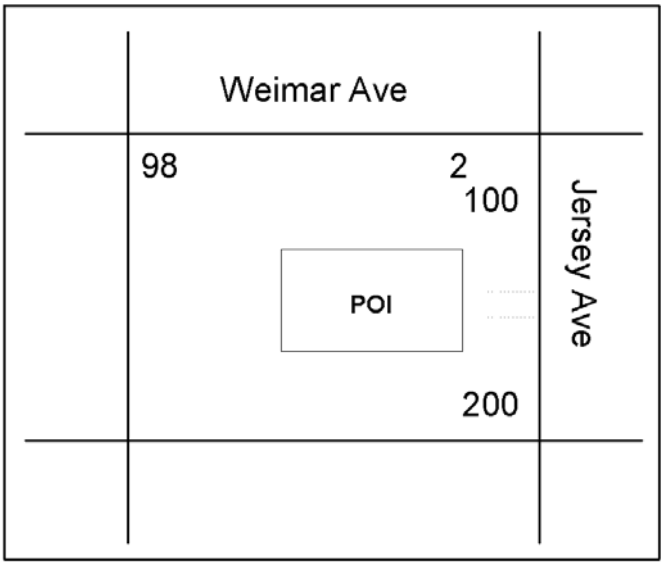


Figure 6-4

In *Figure 6-4*, the actual address for the POI is 10 Weimar Ave, but the POI is accessed from Jersey Ave. In this case, the POI is attached to Jersey Ave with no address but with an ***Actual Address*** pointing to a Name Record ID with "10 Weimar Ave Chicago, IL 60018". Even though Jersey Ave has an address range of 100-200, the address for the POI is blank.

Specification

- ***Actual Address*** is represented using the standard format employed in respective countries. This includes the Address, Street Name, City, and Postal Code.
- For multi-line addresses, the 2nd line will begin in the 51st position of the data.
- Primarily, Golf Course, Casinos, and Shopping Centres are assigned ***Actual Address***. However, any POI may have an ***Actual Address*** assigned.
- ***Actual Addresses*** do not exceed two lines. The following formats are used:

Actual Address Per Country

Country	Format	Example
Albania	<street name> <house number> <city>	FSHATI ZEIJMEN 4 TIRANA
Andorra	<street name> <house number> <city>	CARRER BALMES 89 ANDORRA

Actual Address Per Country

Country	Format	Example
Argentina	<street name> <house number> <postal code> <city>	SAN MARTIN 230 C1000ZAA BUENOS AIRES
Australia	<house number> <street name> <settlement> <state> <postal code>	21 RAMSEY STREET ERINSBURGH VIC 3001
Austria	<street name> <house number> <postal code> <city>	KOLPINGSTRASSE 29 1239 WIEN
Bahrain	<street name> <house number> <locality> <residential complex number>	SHEIKH ABDULLA ROAD 888 AL-MANAMAH 317
Belarus	<street name> < house number> <postal code> <city>	RUE POBÉDY 12 225860 KOBRIN
Belgium (Dutch) (French)	 <street name> <house number> <postal code> <city> <street name> <house number> <postal code> <city>	 MINERVASTRAAT 6 1930 ZAVENTEM RUE D'EGLISE 3 2200 BRUXELLES
Bosnia-Herzegovina	<street name> <house number> <postal code> <city>	UL. SKENDERIJA 60 71000 SARAJEVO
Botswana	(Under investigation)	(Under investigation)
Brazil	<street name> <house number> <town> – <State abbreviation> <postal code>	BOULEVARD DAS FLORES 255 SALVADOR-BA 40301–110
Bulgaria	<street name> <house number> <postal code> <city>	LATINKA 6 1000 SOFIA
Brunei	<house number> <street name> <postal name> <postal code>	95 JALAN PEMANCHA BANDAR SERI BEGAWAN BS8811
Canada (English) (French)	 <address> <street name> <city>, <province> <house number>, <street name> <city>, <province>	 10711 CAMBIE RD RICHMOND, BC 1564, CHEMIN HERRON DORVAL, QC
China	<house number> <street name>, <district> <postal code> <province>	65 JIANCAICHENG XILU, HAIDIAN QU 100096 BEIJING
Croatia	<street name> <house number> <postal code> <city>	KRAPINSKA 17 HR-10000 ZAGREB
Czech Republic	<street name> <house number> <postal code> <city>	POD VISKNOVKOU 45 14000 PRAHA
Denmark	<street name> <house number> <postal code> <city>	HERLEV RINGVEJ 75 2730 HERLEV
Estonia	<street name>, <type & house number> <postal code> <settlement>	PR. ELINA LOOR, ASTRI 6-1 11212 TALLINN

Actual Address Per Country

Country	Format	Example
Finland (Finnish) (Swedish)	<street name> <house number> <postal code> <city> <street name> <house number> <postal code> <city>	KANGASALANTIE 36 33 100 TAMPERE VÄLLINGBYPLAN 26 33 100 TAMPERE
France	<house number>, <street name> <postal code> <city>	196, RUE HOUDAN 92330 SCEAUX
Germany	<street name> <house number> <postal code> <city>	STEINTORWEG 8 20099 HAMBURG
Gibraltar	<house number> <street name>	10 CATHEDRAL SQUARE
Greece	<house number>, <street name> <postal code> <city> <street name> <house number> <postal code> <city>	137, SYNGROU AVENUE 171 21 SMYRNI ARISTEIDOU ST. 7 151 22 MAROUSSI
Hongkong-China	<house number> <street name> <village>, <town or district>	150 Kennedy Road WAN CHAI, HONGKONG
Hungary	<street name> <house number> <postal code> <settlement>	VIRÁG TÉR 3 2380 DABAS
India	<Building Name>[1] <Street Name> <City> <Postal Code>	PRESTIGE TERMINUS 1 AIRPORT EXIT ROAD BANGALORE 560017
Indonesia	<house number>, <street name> <city> <postal code>	73, JALAN CILAKI BANDUNG 40115
Ireland English (within Dublin) English (outside Dublin)	<house number> <street name> <locality> <house number> <street name> <locality>, <post town>	10 MURPHY STREET DUBLIN 3 10 MURPHY STREET TULLOW, COUNTY CARLOW
Italy	<street name>, <house number> <postal code> <city>	VIALE VENTUNO APRILE, 63 00162 ROMA
Jordan	Under investigation	Under investigation
Kuwait	Under investigation	Under investigation
Latvia	<street name> <house number> <settlement>, <postal code>	STACIJAS LAUKUMS 1 RIGA, LV-1073
Lesotho	(Under investigation)	(Under investigation)
Liechtenstein	<street name> <house number> <postal code> <city>	SAHLISTRASSE 1 9495 TRIESEN
Lithuania	<street name>, <type & house number> <postal code> <city>	A. VIVULSKIO G. 23 LT-03500

Actual Address Per Country

Country	Format	Example
Luxembourg	<house number>, <street name> <postal code> <city>	11, GRAND RUE 5721 ASPELT
Macau-China	<street name> <house number>	AV. DA PRAIA GRANDE 2
Macedonia	<street name> <house number> <postal code> <city>	UL. NIKOLA VAPKAROVBR. 7 1000 SKOPJE
Malaysia	<house number> <street name> <postal code> <locality>, <state>	32 JALAN TEMPINIS 43000 KAJANG, SELANGOR
Mexico	<street name> <house number> <colonia>[2] <postal code> <municipio> <estado>	BLVD. VASCO DE QUIROGA 400 LOS GAVILANES 37270 LEÓN GTO
Moldova	<street name>, <house number> <postal code> <city>	STR. EMINESCU, NR. 25 MD-2012 CHISINAU
Monaco	<house number>, <street name> <postal code> <city>	196, RUE HOUDAN 98000 MONACO
Montenegro	<street name> <house number> <postal code> <locality name>	UL. SLOBODE BR.1 81000 PODGORICA
Namibia	Under investigation	Under investigation
New Zealand	<house number> <street name> <district name> <town name> <postal code>	236 MAJORIBANKS STREET MOUNT VICTORIA WELLINGTON 6001
The Netherlands	<street name> <house number> <postal code> <city>	DE WAAL 15 5684 BEST
Norway	<street name> <house number> <postal code> <city>	STANSEVEG 20 0975 OSLO
Oman	Under investigation	Under investigation
Poland	<street name> <house number> <postal code> <city>	UL. BOSMANSKA 1 81-116 GDYNIA
Portugal	<street name> <house number> <postal code> <city>	RUA DE SERRALVES 947 4150 PORTO
Puerto Rico	<house number> <street name> <city>, <state> <postal code>	954 PONCE DE LEON AVENUE SAN JUAN, PR 00907
Qatar	Under investigation	Under investigation
Romania	<street name> <house number> <postal code> <settlement>	CALEA GIULESTI 6 060274 BUCHARESTI
Russia	<street name> <house number> <settlement> <postal code>	RUE TVERSKAYA 7 MOSKVA 103375
San Marino	<street name>, <house number> <postal code> <city>	VIALE VENTUNO APRILE, 63 47031 SAN MARINO
Saudi Arabia	Under investigation	Under investigation
Serbia	<street name> <house number> <postal code> <settlement>	PALMOTICEVA 2 11001 BEOGRAD

Actual Address Per Country

Country	Format	Example
Singapore	<house number> <street name> <settlement> <postal code>	16 Sandilands Road SINGAPORE 546080
Slovak Republic	<street name> <house number> <postal code> <city>	BRATISLAVSKA ULICE 34 82700 BRATISLAVA
Slovenia	<street name> <house number> <postal code> <settlement>	PRESEMOVA UL. 16 4000 KRANJ
South Africa	<house number>, <street name> <suburb>, <city>	191, OXFORD ROAD ROSEBANK, JOHANNESBURG
South Korea	Under investigation	Under investigation
Spain	<street name> <house number> <postal code> <city>	CARRER BALMES 89 08008 BARCELONA
Swaziland	Under investigation	Under investigation
Sweden	<street name> <house number> <postal code> <city>	VÄLLINGBYPLAN 26 162 VÄLLINGBY
Switzerland (German) (French) (Italian)	 <street name> <house number> <postal code> <city> <house number>, <street name> <postal code> <city> <street name>, <house number> <postal code> <city>	 SAHLISTRASSE 1 3012 BERN 11, GRAND RUE 3012 BERN A VIGNÁSCA, 22 6702 CASSERO
Taiwan	Under investigation	Under investigation
Thailand	<house number> <street name> <settlement> <province> <postal code>	11 CHAENG WATTHANA ROAD LAKSI DISTRICT BANGKOK 10150
Turkey	<street name>, <house number> <postal code> <city>	ISMET INÖNÜ BUL., 93 06700 ANKARA
Ukraine	<street name>, <house number> <town> <postal code>	VUL VATUTINA, 4 KYIV 01055
United Arab Emirates	Under investigation	Under investigation
United Kingdom	<house number> <street name> <locality>, <post town>, <postal code>	246 BROMHAM ROAD BIDDENHAM, BEDFORD, MK40 4
United States	<address> <street name> <city>, <state> <postal code>	740 E ARQUES AVE SUNNYVALE, CA 94086

Actual Address Per Country

Country	Format	Example
U.S. Virgin Islands	<house number> <street name> <city>, <state> <postal code>	123 MAIN ST ST THOMAS, VI 00802
Vatican City State	<street name>, <house number> <postal code> <city>	LARGO DEGLI ALICORNI, 63 00120 CITTÀ DEL VATICANO

1. Addresses are not prevalent and are not coded in India. Instead, Residential Buildings, which are very common, are coded and used for destination selection.
2. Colonia name is not available in all areas of Mexico.

6.2.14 Actual Street Name

Definition The parsed Actual Street Name of the POI.

Length 50

Type Text

6.2.15 Actual Street Number

Definition The parsed Actual Street Number of the POI.

Length 10

Type Text

6.2.16 Actual Admin Name

Definition The parsed Actual Admin Name of the POI. Up to two admin names can be published separated by a comma.

Length 10

Type Text

6.2.17 Actual Postal Code

Definition The parsed Actual Postal Code of the POI.

Length 11

Type Text

6.2.18 Address

Definition The house number for the address point.

Length 10

Type Text

6.2.19 Address Type

Definition ***Address Type*** identifies the type of the house number range assigned to the link.

Value B - Base

C - City

D - County

O - Old

T - Commercial

Length 1

Type Text

Usage The ***Address Type*** is used in conjunction with related address attributes, and the associated name for destination selection and geocoding.

Specification

- Road names may be assigned multiple address ranges.

  101-199 Address Type (Base)

  12001-12099 Address Type (County)

- ***Address Type*** = B is assigned to the address range that is most commonly used. Street names with one address range are set to ***Address Type*** = B. Street names with multiple address ranges must have one range set to Base and the others set to any combination of the other values. A street name cannot contain two Base address ranges.

- ***Address Type*** = C, ***Address Type*** = T, ***Address Type*** = D, and ***Address Type*** = O are assigned only when an ***Address Type*** = B is already assigned to the link.

- ***Address Type*** = C is assigned to address ranges assigned by the city government.

- ***Address Type*** = D is assigned to address ranges assigned by the county government.
- ***Address Type*** = O is assigned to an address range to indicate a more recent address range has been assigned to the link.
- ***Address Type*** = T is assigned to address ranges applied to commercial establishments along the link. For example, in some countries two ranges exist on the same road, one range is applied to residential addresses and a different range is applied to commercial establishments.

6.2.20 Admin Area Description

The Admin Area Description information can be found under ***Feature Type***.

6.2.21 Admin Area ID

The Admin Area ID is equivalent to the ***Polygon ID***.

6.2.22 Admin Area Name

The Admin Area Name is equivalent to the ***Feature Name***.

6.2.23 Admin Area Name Language Code

The Admin Area Name Language Code is equivalent to the ***Language Code***.

6.2.24 Admin Area 1 Description

Definition Identifies the description for the border feature associated with Administrative Level 1.

Value Country

Length 18

Type Text

Specification
- The ***Admin Area 1 Description*** is not translated; it always has the value of “Country”.

6.2.25 Admin Area 2 Description

Definition Identifies the Description for the border feature associated with Administrative Area Level 2.

Value ***Admin Area 2 Description*** varies by country, see

Length 18

Type Text

Specification
- See *Section C.2, Administrative Features* for inclusion and specification.
- ***Admin Area 2 Feature Type*** and ***Admin Area 2 Description*** vary by country, see table in *Section 24.4*.

6.2.26 Admin Area 3 Description

Definition Identifies the Feature Type for the border feature associated with Administrative Area Level 3.

Value ***Admin Area 3 Description*** varies by country, see Section 24.4.

Length 18

Type Text

Usage This feature can be used for map display

Specification
- See *Section C.2, Administrative Features* for inclusion and specification.
- ***AA Level 3 Feature Type*** and ***Admin Area 3 Description*** vary by country, see table in *Section 24.4*.
- ***Admin Area 3 Description*** always has the value of “Settlement” when it corresponds to ***AA Level 3 Feature Type*** 900156 (Built Up Area).

6.2.27 Admin Area 4 Description

Definition Identifies the Description for the border feature associated with Administrative Area Level 4.

Value ***Admin Area 4 Description*** varies by country, see Section 24.4.

Length 18

Type Text

Specification
- See *Section C.2, Administrative Features* for inclusion and specification.
- ***AA Level 4 Feature Type*** and ***Admin Area 4 Description*** vary by country, see table in *Section C.4, Administrative Level Coding and Boundary Features*.

- ***Admin Area 4 Description*** always has the value of “Settlement” when it corresponds to ***AA Level 4 Feature Type*** 900156 (Built Up Area).

6.2.28 Admin Area 5 Description

Definition Identifies the Description for the border feature associated with Administrative Area Level 5.

Value ***Admin Area 5 Description*** varies by country, see *Section C.4, Administrative Level Coding and Boundary Features*.

Length 18

Type Text

Usage This feature can be used for map display.

Specification
- See *Section C.2, Administrative Features* for inclusion and specification.
- ***AA Level 5 Feature Type*** and ***Admin Area 5 Description*** vary by country, see table in *Section 24.4*.
- ***Admin Area 5 Description*** always has the value of “Settlement” when it corresponds to ***AA Level 5 Feature Type*** 900156 (Built Up Area).

6.2.29 Admin Area 6 Description

Definition Identifies the Description for the border feature associated with Administrative Area Level 6.

Length 18

Type Text

Specification
- Currently, ***Admin Area 6*** does not exist for any country supported by NAVTEQ.

6.2.30 Admin Area 7 Description

Definition Identifies the Description for the border feature associated with Administrative Area Level 7.

Length 18

Type Text

Specification • Currently, ***Admin Area 7*** does not exist for any country supported by NAVTEQ.

6.2.31 Administrative Level

Definition Identifies the administrative level for the area

Value 1-7

Length 1

Type Numeric

Specification • See *E.1 Area Record Access* for ***Administrative Levels*** per country

6.2.32 Aggregated Feature ID

The Aggregated Feature ID is equivalent to the ***Feature ID***.

6.2.33 Aggregated Feature Description

The Aggregated Feature Description is equivalent to the ***Feature Type***.

6.2.34 Aggregation Type

Definition The type of feature defined by this aggregation.

Value 1 - Grouped Structure

2 - Grouped Complex

Length 2

Type Numeric

6.2.35 Aggregated Feature Name

The Aggregated Feature Name is equivalent to the ***Feature Name***.

6.2.36 Aggregated Feature Language Code

The Aggregated Feature Language Code is equivalent to the ***Language Code***.

6.2.37 Airport Sub Type

The Airport Sub Type information can be found under ***Airport Type***.

6.2.38 Airport Type

Definition Airport Type indicates if the Airport POI is a terminal.

Attribute Modifier Value 1 - Terminal

Usage An application can use this data to display different icons based on the sub-type for the airport.

Specification
- Airport Type is only indicated for each terminal Airport POI.
- If this attribute is not published, the Airport POI is considered to be an entrance.

6.2.39 Aligned

Defintion Indicates that this node is on the boundary between two database regions and that its ***X*** and ***Y Coordinates*** have been matched to a node in the adjacent region.

Value Y - Aligned

N - Not Aligned

Length 1

Type Boolean

Usage Identifies nodes at the boundary of a database for merging with other databases.

Specification
- See *Section 2.8, Matching Links and Nodes between Databases* for ***Aligned*** Specifications.

6.2.40 Area Code 1

Definition Identifies the internal code assigned to Administrative Area Level 1.

Value nnnnn

Length 5

Type Numeric

Specification

- The Area Codes 1 through 7 are internal codes that specify the administrative hierarchy. The Area Records are sorted by the administrative hierarchy.

  Note: These codes are not government codes. A separate field, ***Government Code***, contains this information.

- See *Section E.1, Area Record Access* for determining the administrative hierarchy.
- See *Section E.1, Area Record Access* for Administrative Level Feature Types and Descriptions Per Country.

6.2.41 Area Code 2

Definition Identifies the internal code assigned to Administrative Area Level 2.

Value nnnnn

Length 5

Type Numeric

Specification

- The Area Codes 1 through 7 are internal codes that specify the administrative hierarchy. The Area Records are sorted by the administrative hierarchy.

  Note: These codes are not government codes. A separate field, ***Government Code***, contains this information.

- See *Section E.1, Area Record Access* for determining the administrative hierarchy.
- See *Section E.1, Area Record Access* for Administrative Level Feature Types and Descriptions Per Country.

6.2.42 Area Code 3

Definition Identifies the internal code assigned to Administrative Area Level 3.

Value nnnnn

Length 5

Type Numeric

Specification

- The Area Codes 1 through 7 are internal codes that specify the administrative hierarchy. The Area Records are sorted by the administrative hierarchy.

  Note: These codes are not government codes. A separate field, ***Government Code***, contains this information.

- *Section E.1, Area Record Access* for determining the administrative hierarchy.
- *Section E.1, Area Record Access* for Administrative Level Feature Types and Descriptions Per Country.
- In addition, cities in multiple counties and settlements in multiple municipalities have different ***Area Ids***. Thus, the ***Area Code 3***, ***Area Code 4***, and/or ***Area Code 5*** will be different as well.

  In the Portland example, the following would be published for the Area Codes:

County	*Area Code 1*	*Area Code 2*	*Area Code 3*	*Area Code 4*
Clackamas	1	4	20	11
Multnomah	1	4	9	7
Washington	1	4	34	11

The ***Government Code*** and ***Area Name*** for Portland are the same in all three counties.

Area Name = Portland

Government Code = 59000

6.2.43 Area Code 4

Definition Identifies the internal code assigned to Administrative Area Level 4.

Value nnnnn

Length 5

Type Numeric

Specification

- The Area Codes 1 through 7 are internal codes that specify the administrative hierarchy. The Area Records are sorted by the administrative hierarchy.

  Note: These codes are <u>not</u> government codes. A separate field, ***Government Code***, contains this information.
- *Section E.1, Area Record Access* for determining the administrative hierarchy.
- *Section E.1, Area Record Access* for Administrative Level Feature Types and Descriptions Per Country.

- In addition, cities in multiple counties and settlements in multiple municipalities have different ***Area Ids***. Thus, the ***Area Code 3***, ***Area Code 4***, and/or ***Area Code 5*** will be different as well.

  In the Portland example, the following would be published for the Area Codes:

County	*Area Code 1*	*Area Code 2*	*Area Code 3*	*Area Code 4*
Clackamas	1	4	20	11
Multnomah	1	4	9	7
Washington	1	4	34	11

The ***Government Code*** and ***Area Name*** for Portland are the same in all three counties:

Area Name = Portland

Government Code = 59000

6.2.44 Area Code 5

Definition Identifies the internal code assigned to Administrative Area Level 5.

Value nnnnn

Length 5

Type Numeric

Specification

- The Area Codes 1 through 7 are internal codes that specify the administrative hierarchy. The Area Records are sorted by the administrative hierarchy.

  Note:These codes are not government codes. A separate field, ***Government Code***, contains this information.

- See *Section E.1, Area Record Access* for determining the administrative hierarchy.
- See *Section E.1, Area Record Access* for Administrative Level Feature Types and Descriptions Per Country.

6.2.45 Area Code 6

Definition Identifies the internal code assigned to Administrative Area Level 6.

Value nnnnn

Length 5

Type Numeric

Specification
- Currently, ***AA Level 6*** does not exist for any country supported by NAVTEQ.

6.2.46 Area Code 7

Definition Identifies the internal code assigned to Administrative Area Level 7.

Value nnnnn

Length 5

Type Numeric

Specification
- Currently, ***AA Level 7*** does not exist for any country supported by NAVTEQ.

6.2.47 Area ID

Definition Identifies the unique ID for the area.

Value nnnnnnnnn

Length 10

Type Numeric

Specification
- The Area Ids are unique within North America and within Europe/South Africa. However, Area Ids may be duplicated between North America and Europe/South Africa.
- Cities that exist in multiple counties or settlements that exist in multiple municipalities will have different ***Area IDs***. For example, the city of Portland, OR exists in three different counties.
  - Portland in Clackamas County: Area ID = 36988
  - Portland in Multnomah County: Area ID = 37162
  - Portland in Washington County: Area ID = 37228

  The ***Government Code*** and ***Area Name*** for Portland are the same in all three counties:
  - ***Area Name*** = Portland
  - ***Government Code*** = 59000

- If two cities have the same name, different Area IDs, and different government codes, they are separate cities.

6.2.48 Area Name

Definition Identifies the name of the administrative area.

Value

Length 35

Type Text

Usage Area Names can be used for destination selection and map display for languages supported by NAVTEQ.

Specification

- If an administrative feature has more than one official name in the official language, the most commonly used is published with ***Name Type*** = Base. Other official names are published with ***Name Type*** = Exonym or Synonym. However in bilingual countries, two Base names will exist: one for each language.
- Some countries contain names that can only be represented in Unicode (e.g. Russia). Name records for ***Area Name*** will be represented in the DNDC with ***Language Code*** = CYT and are supported by the delivery of a companion External Unicode “look-aside” file. See *Section A.3, External Unicode File Format* for details. Also refer to the Country Profiles Document for information on countries with ***Language Code*** = CYT.

6.2.49 Area Name Language Code

Definition Identifies the language associated with the Description.

Value

Code	Description
ALB	Albanian
ARA	Arabic
BAQ	Basque
BEL	Belarusian
BEX	Belarusian Transliterated
BOS	Bosnian
BOX	Bosnian Transliterated
BUL	Bulgarian

Code	Description
BUT	Bulgarian Transcribed
BUX	Bulgarian Transliterated
CAT	Catalan
CHI	Chinese (Modern)
CHT	Chinese (Traditional)
SCR	Croatian
SRX	Croatian Transliterated
CZE	Czech
CZX	Czech Transliterated
DAN	Danish
DUT	Dutch
ENG	English
EST	Estonian
ESX	Estonian Transliterated
FIN	Finnish
FRE	French
GLG	Galician
GER	German
GRT	Modern Greek
GRE	Greek
GRT	Greek Transcribed
GRX	Greek Transliterated
HUN	Hungarian
HUX	Hungarian Transliterated
IND	Bahasa Indonesia
ITA	Italian
LAV	Latvian
LAX	Latvian Transliterated
LIT	Lithuanian
LIX	Lithuanian Transliterated
MAC	Macedonian
MAT	Macedonian Transcribed
MAY	Malaysian
MOL	Moldovan
MOX	Moldovan Transliterated
MNE	Montenegrin
MNX	Montenegrin Transliterated

Code	Description
NOR	Norwegian
POL	Polish
POX	Polish Transliterated
POR	Portuguese
PYN	Pinyin
RMX	Romanian Transliterated
RUM	Romanian
RUS	Russian
RST	Russian Transcribed
RUX	Russian Transliterated
SRB	Serbian
SCT	Serbian Transcribed
SCX	Serbian Transliterated
SLO	Slovak
SLX	Slovak Transliterated
SLV	Slovenian
SIX	Slovenian Transliterated
SPA	Spanish
SWE	Swedish
THA	Thai
TKT	Turkish Transcribed
TUR	Turkish
TUX	Turkish Transliterated
UKR	Ukrainian
UKX	Ukrainian Transliterated
WEL	Welsh

Length 3

Type Text

6.2.50 Area Name Type

Definition Identifies the type of Area Name (i.e. Base, Exonym,Synonym, or Abbreviation)

Value A – Abbreviation

B – Base

E – Exonym

S – Synonym

Length 1

Type Text

Usage All Area Names (Base, Abbreviation, Exonyms, and Synonyms) can be used for destination selection and map display for languages supported by NAVTEQ.

Specification Base

- If multiple names exist for a particular administrative area, the base name represents the most commonly used administrative name in the country's official language.
- In bilingual countries, there will be two base names (one for each language).

Abbreviation

- Abbreviations are based on the official abbreviations for a country. For instance, in the U.S., the official abbreviation for California is CA. The state abbreviations are very common in the U.S.
- Abbreviations are not included for all administrative levels. They are applied when an official abbreviation list exists. In North America, the Country (U.S. only), State, and Province levels have official abbreviations.

Synonym and Exonym

- The language code identifies whether the name is a synonym or an exonym of the ***Area Name*** with the ***Name Type*** = Base.
  - If the name is in the same language as the Base name, this represents a synonym.
  - If the name is in a different language than the Base name, this represents an exonym.
- For Administrative Levels 1 and 2, names for the administrative areas in other languages are included as exonyms only when the spelling of the name is different from the spelling of the administrative area names in the country's national language.
- Exonyms are also included for the high profile cities (i.e. New York, Paris, London, etc.).

6.2.51 Assoc Type

Definition Indicates whether the POI is physically or logically associated with this (the parent) POI.

Value L – Logical Relation

P – Physical Relation

Length 1

Type Text

Usage ***Association Type*** can be used to provide information that the desired destination is located within, or serves another POI, such as a hotel near an airport.

Specification

- Physical relationship is identified when the POIs are physically located in, or are directly attached, to each other.
- Logical relationship is identified when the POIs are not physically located in, or not directly attached, to each other. For example, a ***Rental Car Agency*** that serves an airport may be located outside the airport grounds.

6.2.52 Associated POI ID

The Associated POI ID is equivalent to the ***POI ID***.

6.2.53 Attachment Type

Definition The definition of the format of the published file.

Values OBJ - Wavefront Object

TGA - Targa.

Length 3

Type Text

6.2.54 AALevel 1 Address Flag

Definition This attribute indicates whether Administrative Area Level 1 is used for addressing.

Length 1

Type Boolean

6.2.55 AALevel 1 Feature Type

Definition Identifies the Feature Type for the border feature associated with Administrative Area Level 1.

Value nnnnnnn

Length 7

Type Numeric

Usage This feature can be used for map display

6.2.56 AALevel 2 Address Flag

Definition This attribute indicates whether Administrative Area Level 2 is used for addressing.

Length 1

Type Boolean

6.2.57 AALevel 2 Feature Type

Definition Identifies the Feature Type for the border feature associated with Administrative Area Level 2.

Value nnnnnnn

Length 7

Type Numeric

Usage This feature can be used for map display

6.2.58 AALevel 3 Address Flag

Definition This attribute indicates whether Administrative Area Level 3 is used for addressing.

Length 1

Type Boolean

6.2.59 AALevel 3 Feature Type

Definition Identifies the Feature Type for the border feature associated with Administrative Area Level 3.

Value nnnnnnn

Length 7

Type Numeric

Usage This feature can be used for map display

6.2.60 AALevel 4 Address Flag

Definition This attribute indicates whether Administrative Area Level 4 is used for addressing.

Length 1

Type Boolean

6.2.61 AALevel 4 Feature Type

Definition Identifies the Feature Type for the border feature associated with Administrative Area Level 4.

Value nnnnnnn

Length 7

Type Numeric

Usage This feature can be used for map display

6.2.62 AALevel 5 Address Flag

Definition This attribute indicates whether Administrative Area Level 6 is used for addressing.

Length 1

Type Boolean

6.2.63 AALevel 5 Feature Type

Definition Identifies the Feature Type for the border feature associated with Administrative Area Level 5.

Value nnnnnnn

Length 7

Type Numeric

Usage This feature can be used for map display

6.2.64 AALevel 6 Address Flag

Definition This attribute indicates whether Administrative Area Level 6 is used for addressing.

Length 1

Type Boolean

6.2.65 AALevel 6 Feature Type

Definition Identifies the Feature Type for the border feature associated with Administrative Area Level 6.

Value nnnnnnn

Length 7

Type Numeric

Specification
- Currently, ***AA Level 6*** does not exist for any country supported by NAVTEQ.

6.2.66 AALevel 7 Address Flag

Definition This attribute indicates whether Administrative Area Level 7 is used for addressing.

Length 1

Type Boolean

6.2.67 AALevel 7 Feature Type

Definition Identifies the Feature Type for the border feature associated with Administrative Area Level 7.

Value nnnnnnn

Length 7

Type Numeric

Specification • Currently, ***AA Level 7*** does not exist for any country supported by NAVTEQ.

6.2.68 AR-Auto

Definition Identifies wether or not the condition applies to Autos.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.69 AR-Bus

Definition Identifies wether or not the condition applies to Buses.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.70 AR-Carpools

Definition Identifies wether or not the condition applies to Carpools. See *6.2.8 Access Restriction* for more specific information about HOV.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.71 AR-Deliveries

Definition Identifies wether or not the condition applies to Deliveries.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.72 AR-Emergency Vehicles

Definition dentifies wether or not the condition applies to Emergency Vehicles.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.73 AR-Pedestrians

Definition Identifies wether or not the condition applies to Pedestrians.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.74 AR-Taxis

Definition Identifies wether or not the condition applies to Taxis.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.75 AR-Through Traffic

Definition Identifies wether or not the condition applies to Through Traffc.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.76 AR-Trucks

Definition Identifies wether or not the condition applies to Trucks.

Value Y - Applies to

N - Does not apply to

Length 1

Type Boolean

6.2.77 Base Name

Definition A Base Name is a name in a language that is considered official in a given administrative area.

Note: In administrative areas with multiple official languages, multiple Base Names can exist.

Rule In Administrative Areas with multiple official languages, multiple Base Names are published for Named Place POIs, if the official names are different in each language.

Note: The Base Name with the Default Language Code is always published first.

6.2.78 Boat Ferry

Definition A Boat Ferry represents the generalised route of a ferry for passengers or vehicles over water.

Value Y - Boat Ferry

N - Not a Boat Ferry

Length 1

Type Boolean

Usage This attribute can be used for map display.

Specification
- See *Section 2.6.6, Ferry Route* for detailed information.
- For non-navigable links, ***Boat Ferry*** is published as N.
- For more information see *Appendix H, Rules for European Traffic*.

6.2.79 Branch Route ID

Definition Specifies the name of the route that is at the end of a ramp.

Value

Length 20

Type Text

Usage ***Branch Route ID*** can be used for route guidance (both audible and graphical/ textual guidance) and map display. For route guidance, US-101 South should be used and not just US-101 when appropriate.

Specification
- A route name is applied as the ***Branch Route ID*** when the ramp system is directly connected to a link with the route name that is identified on the sign. See *Figure 6-86* (RR-6).
- Some countries contain names that can only be represented in Unicode (e.g. Russia). Name records for ***Branch Route ID*** are supported by the delivery of a companion External Unicode "look-aside" file. See *Section A.3, External Unicode File Format* for details.

Route Name and Number Representation

- Sign information in a shield is represented according to the conventions listed in the following bullets.
  - Alphanumeric and numeric routes represented on a sign in a shield or symbol are added using the standard identifiers listed below. Directional identifiers associated with the Branch Route ID are entered as ***Branch Route Direction***.
  - In Europe, route numbers are represented as the letter followed immediately by the number.

- In the U.S., numbered routes are represented using the route identifier, followed by a hyphen and the route number. Standard identifiers (see *Table 6-1*) for numbered routes include:

Route	Identifier	Examples
Interstate	I	I-80, I-280
Federal	US	US-101, US-17
State Abbreviation	CA, IL, M	CA-82, IL-59
State Route or Route (only when State abbreviation is not applicable)	SR, RT	SR-123, RT-436
Country Route	CR	CR-427A
Other county level routes, (Farm to Market, Ranch to Market, Parish Road)	FM	FM-125
Bureau of Indian Affairs	BIA	BIA-12
National Forest Roads	NF	NF-444
Bureau of Land Management	BLM	BLM-25

Table 6-1

- When official modifiers such as "LOOP" or "BUS" are included within the shield symbol, these are attached to the name using the conventions listed in *Table 6-2* below.
- When text such as "Business", "Loop", "Alternate", "Express", etc., is associated with a shield sign but is not included within the shield symbol then it is attached to the name without a hyphen e.g., "US-50 Business".
- Numbered routes represented on a sign as text (no shield) will be entered as ***Sign Text*** with ***Text Type*** = B or T.
- Non-numeric routes represented in a shield or symbol are entered as ***Sign Text*** with the directional identifiers spelled out. For example, routes such as "Garden State Parkway", "New Jersey Turnpike North", and "Florida's Turnpike".

Route	Identifier	Examples
Alternate or Alternate Route	ALT	CR-80-ALT
Business Loop	BL	US-101-BL
Business Route	BR	SR-10-BR
Bypass	BYP	CA-12-BYP

Route	Identifier	Examples
Connector	CONN	CA-12-CONN
Extension	EXT	IL-53-EXT
Link	Link	NE-10B-Link
Loop	LOOP	CA-12-LOOP
Scenic (Not all routes labelled as "Scenic" on sources require the name identifier.)	SCENIC	AZ-10-SCENIC
Spur	SPUR	I-80-SPUR
Toll	TOLL	PA-60-TOLL
Truck Route	TRUCK	CA-12-TRUCK
Turnpike	TPKE	IL-59-TPKE

Table 6-2

6.2.80 Branche Route Direction

Definition The official directional identifier assigned to the ***Branch Route ID***.

Value

Code	Description	Language Code
(space)	Not Applicable	Not Applicable
E	East	ENG
E	Est	FRE
E	Este	SPA
N	North	ENG
N	Nord	FRE
N	Norte	SPA
O	Ouest	FRE
O	Oeste	SPA
S	South	ENG
S	Sud	FRE
S	Sur	SPA
W	West	ENG

Length 1

Type Text

Usage In conjunction with ***Branch Route ID***, ***Branch Route Direction*** can be used for route guidance (both audible and graphical/textual guidance) and map display. For route guidance, US-101 South should be used and not just US-101 when appropriate.

Specification
- The posted directional identifiers associated with official route designates are entered where applicable.

6.2.81 Bridge

Definition Bridge is a structure that allows a road, railroad, or walkway to pass over another road, railroad, water feature, or valley.

Value Y - Bridge

N - Not a Bridge

Length 1

Type Boolean

Usage This attribute can be used for display or route guidance.

Specification
- ***Bridge*** = Y is applied when the bridge is longer than 200 metres/656 feet. Smaller bridges may be included where significant.
- ***Bridge*** coding is applied to roads and railroads.
- Overpasses/Underpasses receive ***Bridge*** = N.
- When a ***Bridge*** is on a road that is multiply digitised, the length of the attribute will match on both sides of the road, as shown in *Figure 6-5*.

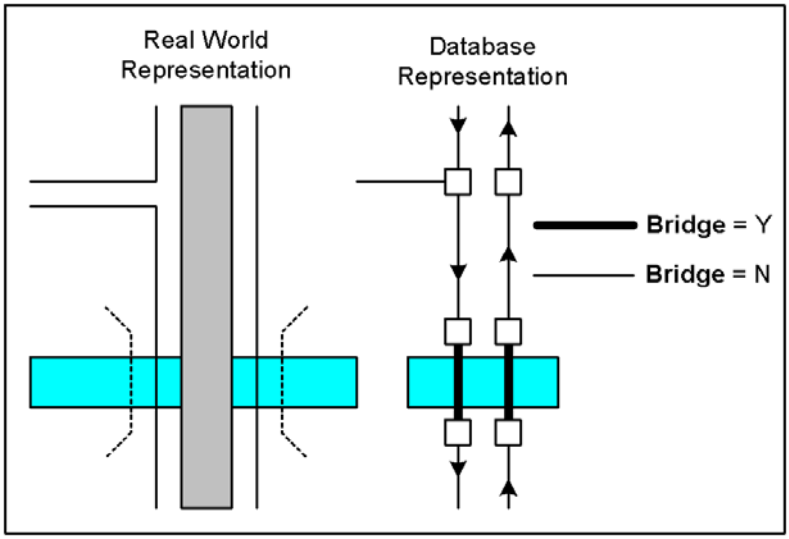


Figure 6-5

- For non-navigable links, ***Bridge*** is published as N.

6.2.82 Building Height

Definition ***Building Height*** indicates the height of a building (in metres), as used for Structure Footprints.

Value nnn

Type Numeric

Specification

- Separate polygons are included for each Structure Footprint height. A new structure footprint is generated when the height of surface areas for a building changes more than 10 metres.
- Height is published in metres, regardless of the country's measurement system.
- Height is measured from the base of the building to the highest point of the roofline of the building. Roofline is also known as base line or eaves.
- Height is not published for a Structure Footprint when 3D-rendering based on a Height value is not possible.

6.2.83 Building/Landmark Description

The Building/Landmark Description information can be found under ***Feature Type***.

6.2.84 Building/Landmark ID

The Building/Landmark ID is equivalent to the ***Polygon ID***.

6.2.85 Building/Landmark Language Code

The Building/Landmark Language Code is equivalent to the ***Language Code***.

6.2.86 Building/Landmark Name

The Building/Landmark Name is equivalent to the ***Feature Name***.

6.2.87 Building Type

Definition The attribute modifiers for ***Building Type*** indicate which type of religious building is represented by a ***Place of Worship(9992)*** POI.

Attribute Modifier Value
1 - Mosque
2 - Church
3 - Temple
4 - Synagogue

Usage The ***Building Type*** can be used to identify which type of religious building is represented by a ***Place of Worship(9992)*** POI.

6.2.88 Capital

Definition The ***Capital*** attribute identifies ***Named Place*** POIs that are capitals of an administrative area.

Attribute Modifier Value
Defines the administrative level of a capital.
1 – Administrative Level 1
2 – Administrative Level 2
3 – Administrative Level 3
4 – Administrative Level 4
5 – Administrative Level 5
6 – Administrative Level 6
7 – Administrative Level 7

Usage ***Capital*** can be used to identify ***Named Place*** POIs that may be important for map display.

Specification

- All country capitals are indicated and receive the ***Attribute Modifier*** value of 1.

  Note: A small number of countries do not have a capital in reality. See table below for exceptions.

- The capital of an administrative level is indicated for the administrative levels as shown in the table below.

  If a ***City Centre*** POI is a capital for multiple administrative levels, an ***Attribute Modifier*** value is coded for all applicable administrative levels.

Country	Level 2	Level 3
Albania	N/A	Rreth
Andorra	N/A	N/A
Argentina	Provincia	N/A
Australia	State	N/A
Austria	Bundesland	Bezirk
Bahrain	N/A	N/A
Belarus	Voblast	Rayon
Belgium	Gewest	Provincie
Bosnia-Herzegovina	N/A	Kanton
Botswana	Under Investigation	Under Investigation
Brazil	Under Investigation	Under Investigation
Brunei	N/A	N/A
Bulgaria	Oblast	N/A
Canada	Province	N/A
Channel Islands[1]	Post County	N/A
China	Municipality	Provincial City
Croatia	Zupanije	N/A
Czech Republic	Kraj	N/A
Denmark	Region	N/A
England	N/A	N/A
Estonia	Maakond	N/A
Finland	Lääni	Maakunta

Country	Level 2	Level 3
France	Région	Département
Germany	Bundesland	Kreis
Gibraltar	N/A	N/A
Greece	Periferia	Nomi
Hongkong-China	Province	N/A
Hungary	Megye	N/A
India	State	(under investigation)
Indonesia	Provinsi	Kabupaten
Ireland	N/A	N/A
Isle of Man	N/A	N/A
Italy	Regione	Provincia
Jordan	Governorate	N/A
Kuwait	N/A	N/A
Latvia	Rajons	N/A
Lesotho	District	N/A
Liechtenstein	N/A	N/A
Lithuania	Apskritis	N/A
Luxembourg	N/A	N/A
Macau-China	N/A	N/A
Macedonia	Opcina	N/A
Malaysia	N/A	N/A
Mexico	Estado	N/A
Moldova	Raion	Comuna
Monaco	N/A	N/A
Montenegro	N/A	Okrug
Namibia	Under Investigation	Under Investigation
Netherlands	Provincie	N/A
New Zealand	Island	
Northern Ireland	N/A	N/A
Norway	Fylke	N/A
Oman	N/A	N/A
Poland	Województw	N/A
Portugal	Distritos	N/A

Country	Level 2	Level 3
Puerto Rico	Commonwealth	N/A
Qatar	N/A	N/A
Romania	Judet	N/A
Russia	Okrug	N/A
San Marino[1]	N/A	N/A
Saudi Arabia	N/A	N/A
Scotland	N/A	N/A
Serbia	N/A	Okrug
Singapore	N/A	N/A
Slovak Republic	Kraj	N/A
Slovenia	Upravna Enota	N/A
South Africa	Province	N/A
South Korea	N/A	N/A
Spain	Autonomía	Provincia
Swaziland	Region	N/A
Sweden	Län	N/A
Switzerland	Kanton	Bezirk
Taiwan	N/A	N/A
Thailand	Changwat	Amphur
Turkey	Sehir	Kasaba
Ukraine	Oblast	Rayon
United States	State	N/A
U.S. Virgin Islands	under investigation	under investigation
[2]Vatican City State	N/A	N/A
Wales	N/A	N/A

1. No ***Capital City*** attribute exists at the Country Level.
2. No *Capital Indicator* exists at Country Level.

Table 6-3

6.2.89 Cartographic Country ID

The Cartographic Country ID is equivalent to the ***Link ID***.

6.2.90 Cartographic Country Left Language Code

The Cartographic Country Left Language Code is equivalent to the ***Language Code***.

6.2.91 Cartographic Country Left Name

The Cartographic Country Left Name is equivalent to the ***Feature Name***.

6.2.92 Cartographic Country Right Language Code

The Cartographic Country Right Language Code is equivalent to the ***Language Code***.

6.2.93 Cartographic Country Right Name

The Cartographic Country Right Name is equivalent to the ***Feature Name***.

6.2.94 Cartographic State ID

The Cartographic State ID is equivalent to the ***Link ID***.

6.2.95 Cartographic State Left Language Code

The Cartographic State Left Language Code is equivalent to the ***Language Code***.

6.2.96 Cartographic State Left Name

The Cartographic State Left Name is equivalent to the ***Feature Name***.

6.2.97 Cartographic State Right Language Code

The Cartographic State Right Language Code is equivalent to the ***Language Code***.

6.2.98 Cartographic State Right Name

The Cartographic State Right Name is equivalent to the ***Feature Name***.

6.2.99 Chain ID

The Chain ID is equivalent to the ***POI Chain ID***.

6.2.100 Child ID

Definition The POI ID of the associated child POI.

Value nnnnnnnnnn

Type Numeric

6.2.101 Component ID

Definition The Feature Identifier of the Structure Footprint or Grouped Structure part of the Aggregated Feature. For Structure Footprints the Component ID corresponds to the Feature ID in the Building/Landmark Features layer (Landmarks). For Grouped Structures the Component ID corresponds to the Aggr_ID in the Aggregated Feature layer (AggrFeature).

Value nnnnnnnnnn

Length 10

Type Numeric

6.2.102 Component Type

Definition The type of feature/entity used for the definition of an Aggregated Feature.

Value F - Structure Footprint

S - Grouped Structure.

Note: A Grouped Structure has Structure Footprints defined as components, a Grouped Complex has Grouped Structures defined as components.

Length 2

Type Text

6.2.103 Condition ID

Definition Unique identifier for the Condition, this is the database VAD ID.

Value nnnnnnnnnn

Type Numeric

6.2.104 Condition Modifier 1-4

Definition General purpose field used to store information specific to a Condition Type.

Value See specific ***Condition Types*** for ***Condition Modifier*** values

Length ***Condition Modifier 1 & 2*** - 5

Condition Modifier 3 & 4 - 10

Type Numeric

Position ***Condition Modifier 1*** - 35

Condition Modifier 2 - 40

Condition Modifier 3 - 45

Condition Modifier 4 - 55

6.2.105 Condition Type

Definition Specifies the type of condition.

Note: The value of this field will determine the content of the Condition Modifier fields.

Value 1 - Toll Booth

3 - Construction Status Closed

4 - Gate

5 - Direction of Travel

7 - Restricted Driving Manoeuvre

8 - Access Restriction

9 - Special Explication

10 - Special Speed Situation (Europe: Links with ***Controlled Access*** = Y; U.S.:Links with ***Controlled Access*** = Y and ***Functional Class*** = 1 or 2)

11 - Variable Speed Sign (Europe: Links with ***Controlled Access*** = Y; Continental U.S.: Links with ***Controlled Access*** = Y and ***Functional Class*** = 1 or 2)

12 - Usage Fee Required Condition (UK, Czech Republic, Hungary, Austria, Switzerland, and Slovak Republic only)

13 - Lane Traversal

14 - Through Route

16 - Traffic Signal

17 - Traffic Sign

18 - Railway Crossing

19 - Passing Restriction

20 - Junction View

21 - Protected Overtaking

Length 5

Type Numeric

Specification • For more information see *Section G.1, Restricted Driving Manoeuvre*

6.2.106 Condition Value

The Condition Value is equivalent to the ***Condition Modifier 1-4***.

6.2.107 Condition Value 2

The Condition Value 2 is equivalent to the ***Condition Modifier 1-4***.

6.2.108 Condition Value 3

The Condition Value 3 is equivalent to the ***Condition Modifier 1-4***.

6.2.109 Condition Value 4

The Condition Value 4 is equivalent to the ***Condition Modifier 1-4***.

6.2.110 Controlled Access

Definition Controlled Access identifies roads with limited entrances and exits that allow uninterrupted high speed traffic flow. These roads constitute the interstate/freeway network in the U.S. and the motorway network in Europe.

Value Y - Controlled Access

N - Not Controlled Access

Length 1

Type Boolean

Usage The ***Controlled Access*** attribute can be used for map display, avoidance of freeway/motorway, and route guidance timing.

Specification

- ***Controlled Access*** = Y is applied when a road is multiply digitised, has no crossings at grade, and is accessible by ramps or rest areas only. By definition, controlled access is a network, which means that stretches of road with only a few ramp interchanges in succession between areas where crossings are at grade will not be coded with ***Controlled Access*** = Y
- Rest areas receive ***Controlled Access*** = N.
- All connections between two or more controlled access roads are coded ***Controlled Access*** = Y.
- All connections between a controlled access road and a non-controlled access road are coded ***Controlled Access*** = N. See *Figure 6-6,* Link A.
- If a ramp exiting a controlled access road leads to both another controlled access road and a non-controlled road, the full path leading to the other controlled access road is coded ***Controlled Access*** = Y and only the splitter ramp leading to the non-controlled access road receives ***Controlled Access*** = No. See *Figure 6-6,* Links B and C.

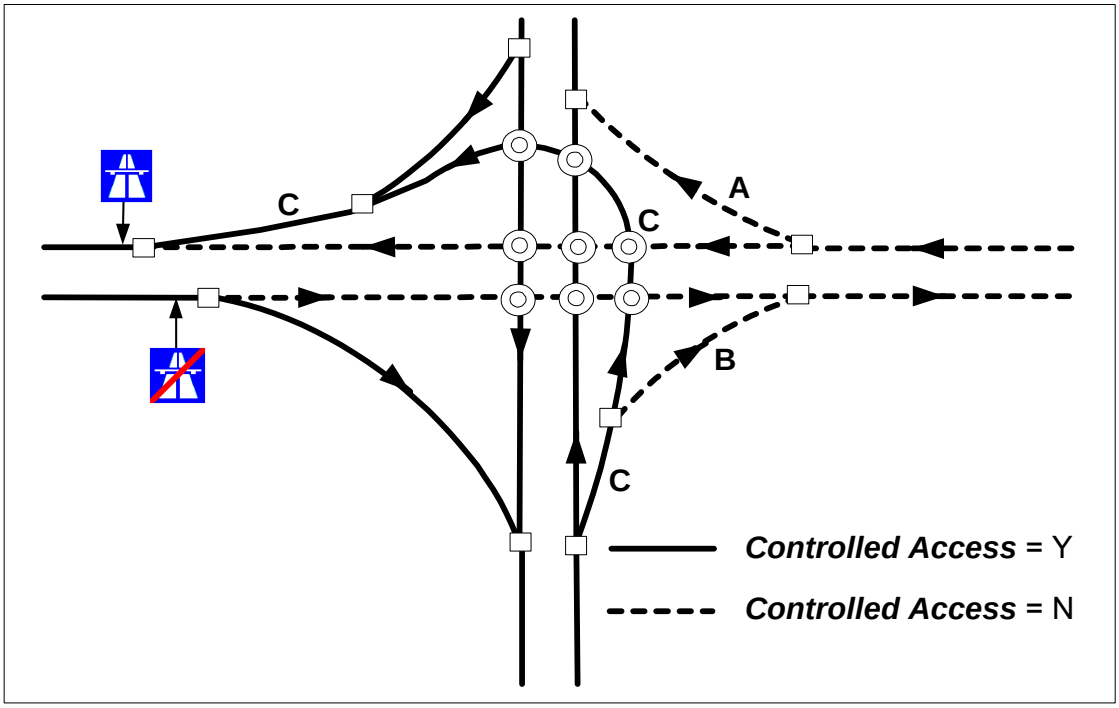


Figure 6-6

- When a roundabout is the connection between controlled access roads, then the roundabout receives ***Controlled Access*** = N.
- In Europe, only roads with the motorway sign receive ***Controlled Access*** = Y.
- The start and end of a controlled access road reflects reality. In the U.S., a posted sign, “Begin Freeway”, reflects the start of the ***Controlled Access***. See *Figure 6-7*.

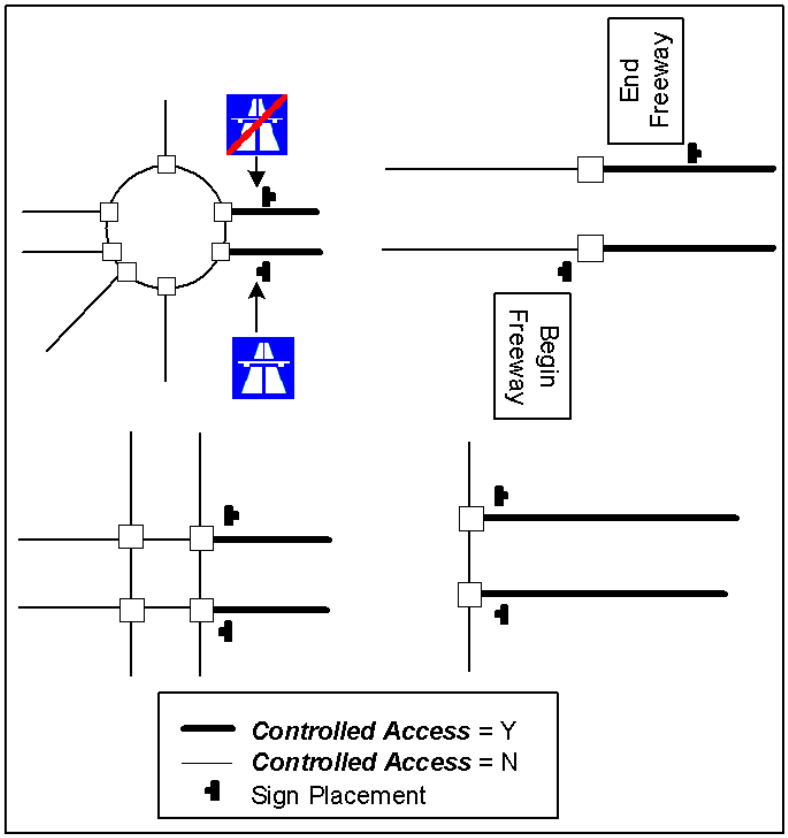


Figure 6-7

- For non-navigable links, ***Controlled Acces*** is published as N.

6.2.111 Copyright

Definition Identifies that the file is copyrighted

Value (C) NAVTEQ NORTH AMERICA, LLC

Length 52

Type Text

6.2.112 Coverage Indicator

Definition ***Coverage Indicator*** is an attribute to a navigable Link that indicates a product level that corresponds to the inclusion of database features. It also indicates verification and completeness for a particular feature in the database.

Value

Coverage Indicator	Country	Description
A0	Brazil	Brazil Entry Map, ***FC*** = 1-5
A1	New Zealand	New Zealand Entry Map, ***FC*** 1-5 with ***Z-leve***l and ***Number of Lanes***
A3	Indonesia	Indonesia Entry Map, ***FC*** = 1-5

Note: More values may be introduced for other countries.

Length 2

Type Text

Usage ***Coverage Indicator*** provides a refinement to the existing Detailed City, Inter Town, In Process Data and Full Geometry coding in the NAVTEQ data products.

An application can use ***Coverage Indicator*** to provide specific guidance or display depending on the Coverage Indicator value. An example of specific guidance would be a message when entering an area with a particular coverage indicator.

Specification

- Coverage Indicator is coded for navigable Links only.
- A Link can have only one ***Coverage Indicator*** attribute associated.
- ***Coverage Indicator*** attribute is coded only where refinement to existing Detailed City and In Process Data coding is desired. Coverage Indicator is not coded for all NAVTEQ databases.

Note: Existing Detailed City Inclusion and In Process Data coding is unaffected by the introduction of ***Coverage Indicator***.

6.2.113 Cuisine Type

Definition The identification of cuisine served in a restaurant.

Value

Value	Description
1	American Food
2	Californian Food
3	Chinese Food
4	Continental Food
5	French Food
6	German Food
7	Greek Food
8	Indian Food
9	Italian Food
10	Japanese Food
11	Mexican Food
12	Other
13	Seafood
14	Thai Food
15	Vegetarian Food
16	Vietnamese Food
17	Unknown
18	Austrian Food
19	Barbecue/Southern
20	Belgian Food
21	Bistro
22	Brewpub
23	British Isles Food
24	Cajun/Caribbean Food
25	Dutch Food
26	East European Food
27	Fast Food
28	Grill
29	Hawaiian/Polynesian Food
30	Hungarian Food
31	Indonesian/Malaysian Food
32	Jewish/kosher Food

Value	Description
33	Korean Food
34	Latin American Food
35	Maltese Food
36	Middle Eastern Food
37	Filipino Food
38	Polish Food
39	Portuguese Food
40	Russian Food
41	Sandwich
42	Scandinavian Food
43	South American Food
44	Southeast Asian Food
45	South-western Food
46	Surinamese Food
47	Spanish Food
48	Steak House
49	Swiss Food
50	Turkish Food
51	African Food
52	Canadian Food
53	International Food
54	Bohemian Food
55	Balkan Food
56	Finnish Food
57	Australian Food
58	Pizza
59	Punjabi
60	Rajasthani
61	Moghlai
62	Bengali
63	Goan
64	Jain
65	Konkani

Value	Description
66	Gujarati
67	Parsi
68	South Indian
69	Maharashtrian
70	North Indian
71	Malvani
72	Hyderabadi

Usage Implementation of ***Cuisine Type*** allows a user to select restaurants by desired cuisine type. ***Cuisine Type*** enables restaurants to be indexed, queried, and displayed by cuisine type.

Specification
- Each Restaurant POI receives only one Cuisine Type.
- NAVTEQ does not provide icons for Cuisine Types.

6.2.114 Currency Precision

Definition Identifies the number of digits used after the decimal point or comma for the currency in question.

Value 0-7

Length 1

Type Numeric

Usage The ***Currency Precision*** attribute specifies the number of digits to use, after the comma or decimal point, when displaying currency values. ***Currency Precision*** should be used in conjunction with ***Currency Type***.

6.2.115 Currency Type

Definition Identifies the dafault currency of a country

Value See *Section D.2.11, CURRTYPE-Currency Type*

Length 3

Type Text

Usage The ***Currency Type*** attribute specifies the type of currency to use, when displaying currency values. ***Currency Type*** should be used in conjunction with ***Currency Precision***.

Specification • ISO currency codes are used

6.2.116 Database Version

Definition Identifies the version of the database.

Value x.y.z

Length 5

Type Text

6.2.117 Date/Time Modifier (DTM) Type

Definition Identifies the period for which the condition is valid.

Value A - Date Ranges

C – Day of Month

D – Day of Week of Month

E – Day of Week of Year

F – Week of Month

H – Month of Year

I – Day of Month of Year

1 – Daymask

2 – External

Note: See ***Reference Date*** for examples

Length 1

Type Text

Usage This enables dynamic route calculation. If the system does not consider this entire record it is either ignoring possible routes or using illegal ones during the specified times.

Specification • For ***Date/Time Modifier Types*** = A-I, the ***Reference Date*** represents the start of the range and the ***End Date*** represents the end of the range for ***Date/Time Modifier Types*** A-I. See ***Reference Date*** for specific formats for each type.

- For ***Date/Time Modifier Type*** = 1, ***Reference Date*** identifies the days of the week.

For ***Date/Time Modifier Type*** = 2, ***Reference Date*** identifies the name of the external date.

6.2.118 Datum

Definition Identifies the coordinate system in use.

Value WGS84 (World Geodetic System of 1984)

Length 5

Type Text

6.2.119 Destination Lane Number

The Destination Lane Number is equivalent to the ***Source Lane Number***.

6.2.120 Destination Travel Direction

The Destination Travel Direction is equivalent to the ***Source Travel Direction***.

6.2.121 Destination Link ID

The Destination Link ID is equivalent to the ***Link ID***.

6.2.122 Detailed City

Definition This attribute specifies whether a link is part of a Detailed City coverage area.

If ***Detailed City*** = N, then the inclusion level may be either Inter-Town, In-Process Data, or Connector Road.

Value *Layers: Streets, Cartographic Country and Cartographic State*

Y - Part of Detailed City Coverage Area

N - Not Detailed City Coverage Area

Layers: Administrative Area Boundaries, Waterway Polygons, Waterway Segments, Building/Landmark Features, Land Use Features A/B, Islands and *Risk Prone Area*

Y - Part of Detailed City Coverage Area

N - Not Detailed City Coverage Area

P - Part of the polygon is Detailed City Coverage Area, part is not Detailed City Coverage Area

Length 1

Type Boolean

Usage This attribute allows systems to adapt to different levels of attributing.

Specification
- Links in an ocean receive ***Detailed City*** = *N*.

6.2.123 Diesel

Definition Diesel indentifies if a petrol station is selling Diesel.

Value (space) - Information is Unknown

Y - Diesel Sold

N - Diesel Not Sold

Length 1

Type Text

6.2.124 Direction of Travel

Definition Direction of Travel identifies legal travel directions for a navigable link.

Value (space) - Not Applicable

B - Both Directions

F - From Reference Node

T - To Reference Node

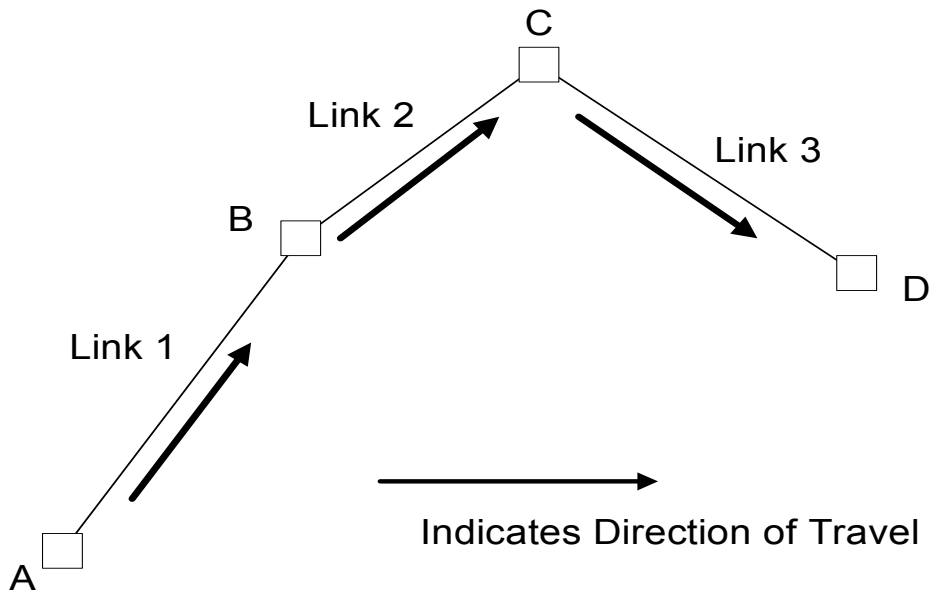
Length 1

Type Text

Usage ***Direction of Travel*** enables correct route calculation, route guidance, and map display. For example, display of one-way icon.

Specification
- ***Direction of Travel*** = F is applied when the direction of travel is one way from the reference node to the non-reference node.

- ***Direction of Travel*** = T is applied when the direction of travel is one way to the reference node from the non-reference node.
- ***Direction of Travel*** = B is applied when travel is allowed in both directions between the reference and the non-reference nodes.
- ***Direction of Travel*** = Not Applicable is applied to non-navigable links.
- The ***Direction of Travel*** is determined based on each individual link. Links within the same one-way road may have a different ***Direction of Travel*** value because of the relative positions of the reference and non-reference node, as shown in *Figure 6-8*.
- Ferries and walkways receive ***Direction of Travel*** = B.



Link	Ref. Node	Non-Ref. Node	Dir of Travel
1	A	B	F
2	B	C	F
3	D	C	T

Figure 6-8

6.2.125 Direction on Sign

Definition The official directional identifiers assigned to highways.

Value Blank – Not Applicable

E – East (***Language Code*** = ENG)

E – Est (***Language Code*** = FRE)

E – Este (***Language Code*** = SPA)

N – North (***Language Code*** = ENG)

N – Nord (***Language Code*** = FRE)

N – Norte (***Language Code*** = SPA)

O – Ouest (***Language Code*** = FRE)

O – Oeste (***Language Code*** = SPA)

S – South (***Language Code*** = ENG)

S – Sud (***Language Code*** = FRE)

S – Sur (***Language Code*** = SPA)

W – West (***Language Code*** = ENG)

Length 1

Type Text

Usage ***Direction on Sign*** should be used in conjunction with ***Feature Name***, ***Name on Road Sign***, and ***Name Route Type***. For route guidance, US-101 South should be used and not just US-101 when appropriate.

Specification

- These specifications are applicable for North America and South Africa only. This is due to where ***Direction on Sign*** exists as a concept in reality.
- When a ***Multiply Digitised*** = Y numbered route is coded with ***Route Type*** = 1, 2, 3, or 4, ***Direction on Sign*** is applied according to the officially assigned directional identifiers.
- ***Direction on Sign*** is the official direction and not necessarily the travel direction. For example, US-101 through the city of Sunnyvale is physically located east to west. However, the official ***Direction on Sign*** is North/South.
- ***Direction on Sign*** may be assigned to non-multiply digitised roads, when a route diverges through an urban area due to one-way streets so that opposing directions of the route are on separate roads.

- Other ***Multiply Digitised*** = Y highways with non-numeric names like “Garden State Pky” or others which typically have “Hwy” or “Pky” street types may also have ***Direction on Sign*** applied if there are official directional identifiers.

- ***Direction on Sign*** is not applied to names on frontage roads unless these are shielded routes and coded with ***Route Type*** = 1-4.
- Numeric county routes do not usually require ***Direction on Sign*** unless field verified as officially posted.

6.2.126 Display Class

Definition ***Display Class*** is a classification of Features which enables a meaningful display of these specific Features. The classification is assigned according to the importance of the associated Feature.

Value

Display Class	Description
1	First Class
2	Second Class
3	Third Class
4	Fourth Class
5	Fifth Class
6	Sixth Class
7	Seven Class
8	Eigth Class

Default Value 8 - Eighth Class (applied to water features only)

Length 1

Usage ***Display Class*** information can be used to determine which features to display at different zoom levels

Specification

- ***Display Class*** is applied to water features only.
- ***Display Class*** is applied to linear and polygonal water features. All features that are not water features do not have ***Display Class*** value assigned.
- ***Display Class*** is included for the following water features:

Feature Description	Feature Code
Ocean	0500116
Bay/Harbour	0507116
Lake	0500421
River	0500412
Canal	0500414
Intermittent River[1]	0500413
Park in Water	0900140

1. Included in Mexico only.

Display Class is applied to corresponding water features as listed in *Table 6-4*.

Display Class	Water Features
1	Oceans
	Rivers, Canals and Intermittent Rivers (Mexico only) displayed at world overview maps at an approximate scale of 1:50.000.000 or based on local knowledge. For example, the Mississippi river in NA or river the Rhein in Europe.
	Bay/Harbours touching Oceans or touching Rivers included at Display Class = 1 or based on local knowledge.
	Lakes and Parks in Water (see *Table 6-5*)
2	Rivers, Canals and Intermittent Rivers (Mexico only) on commercial maps at an approximate scale of 1:25.000.000 or based on local knowledge.
	Bay/Harbours touching Rivers included as Display Class = 2 or based on local knowledge.
	Lakes and Parks in Water (see *Table 6-5*)
3	Rivers, Canals and Intermittent Rivers (Mexico only) displayed on commercial maps at an approximate scale of 1:10.000.000 or based on local knowledge.
	Bay/Harbours touching Rivers included as Display Class = 3 or based on local knowledge.
	Lakes and Parks in Water (see *Table 6-5*)
4	Rivers, Canals and Intermittent Rivers (Mexico only) displayed on commercial maps at an approximate scale of 1:2.500.000 or based on local knowledge.
	Bay/Harbours touching Rivers included as Display Class = 4 or based on local knowledge.
	Lakes and Parks in Water (see *Table 6-5*)
5	Rivers, Canals and Intermittent Rivers (Mexico only) displayed on commercial maps at an approximate scale of 1:1.000.000 or based on local knowledge.
	Bay/Harbours touching rivers included as Display Class = 5 or based on local knowledge.
	Lakes and Parks in Water (see *Table 6-5*)
6	Rivers, Canals and Intermittent Rivers (Mexico only) displayed on commercial maps at an approximate scale of 1:500.000 or based on local knowledge.
	Bay/Harbours touching rivers included as Display Class = 6 or based on local knowledge.
	Lakes and Parks in Water (see *Table 6-5*)

Display Class	Water Features
7	Rivers, Canals and Intermittent Rivers (Mexico only) displayed on commercial maps at an approximate scale of scale 1:150.000 or based on local knowledge.
	Lakes and Parks in Water (see *Table 6-5*)
8	Rivers, Canals and Intermittent Rivers (Mexico only) displayed on commercial maps at an approximate scale of scale 1:30.000 or based on local knowledge.
	Lakes and Parks in Water (see *Table 6-5*)

Table 6-4

- Islands do not have a ***Display Class*** value assigned.
- Water features can be assigned a more important ***Display Class*** based on local knowledge, even though their individual size do not reflect their importance. In cases of large rivers that originate from smaller tributaries. the tributaries receive the same ***Display Class*** as the larger river for correct map display.
- Rivers receive the same ***Display Class*** for the complete feature, regardless of the changes in width along the course of the river.

  Note: Branches of main rivers do not necessarily receive the same ***Display Class*** as the main river.
- All ***Display Classes*** 1 through 8 do not necessarily get populated for all water features. For example, Greece does not have any rivers coded at ***Display Class*** = 1 and 2, since no large rivers run through the country. However, all water features will have a ***Display Class*** value assigned.
- The corresponding area specification for each ***Display Class*** for Lakes and Parks in Water are listed in *Table 6-5*.

Display Class	Europe/Middle East/ Asia-PacificCan (square metres)	Canada (square metres)	U.S./Brazil/Australia (square metres)
1	> 100.000.000	>200.000.000	>100.000.000
2	> 50.000.000 < 100.000.000	>50.000.000 <200.000.000	> 10.000.000 < 100.000.000
3	> 10.000.000 < 50.000.000	>10.000.000 <50.000.000 >	5.000.000 < 10.000.000
4	> 5.000.000 < 10.000.000 >	5.000.000 < 10.000.000 >	2.500.000 < 5.000.000
5	> 2.500.000 < 5.000.000	>1.000.000 < 5.000.000	>1.000.000 < 2.500.000
6	> 1.000.000 < 2.500.000 >	600.000 < 1.000.000 >	600.000 < 1.000.000
7	> 250.000 < 1.000.000 >	250.000 < 600.000 >	250.000 < 600.000
8	> 0 < 250.000	> 0 < 250.000	> 0 < 250.000

Table 6-5

6.2.127 Divider

Definition This attribute identifies the presence of a physical traffic blocking divider.

Value *(space)* = Not Applicable

A = Both Nodes and Link

L = Link Only

N = No Divider

1 = Ref Node and Link

2 = Nref Node and Link

Length 1

Type Text

Usage Divider coding enables a system to prevent left turns (in right-side driving countries), right turns (in left-side driving countries), and U-turns at divided intersections and in the middle of divided roads. See diagrams in Specification section below.

Specification

- ***Divider*** = L is applied when only the link is divided. Turns are allowed at either node of the divided link. U-turns are not allowed along the divided link.

- ***Divider*** = A is applied when the link and both nodes are divided. Additionally, left turns (in right-side driving countries), right turns (in left-side driving countries), and U-turns are not allowed to/from the divided link to/from any link at either node or to driveways along the link.

- ***Divider*** = 1 is applied when the link and reference node are divided. Left turns (in right-side driving countries, right turns (in left-side driving countries), and U-turns are not allowed from the divided link to/from any link at the reference node or to driveways along the link.

- ***Divider*** = 2 is applied when the link and non-reference node are divided. Left turns (in right-side driving countries), right turns (in left-side driving countries), and U-turns are not allowed, from the divided link to/from any link at the non-reference node or to driveways along the link.

- ***Divider*** = N is applied when the link is not divided and the link is navigable.

- ***Divider*** = Not Applicable is applied to non-navigable links.

- Physical or painted dividers which only restrict driving manoeuvres at intersections are coded using Restricted Driving Manoeuvres. See *Section G.1, Restricted Driving Manoeuvre.*

- When a link indicates a divided node, the adjacent link in the road must also indicate that the intersection is divided.

- ***Divider*** is used in combination with ***Divider Legal*** to represent legal dividers. If ***Legal Divider*** = No***,*** then the ***Divider*** value represents a physical divider.

  See *Figure 6-9.*

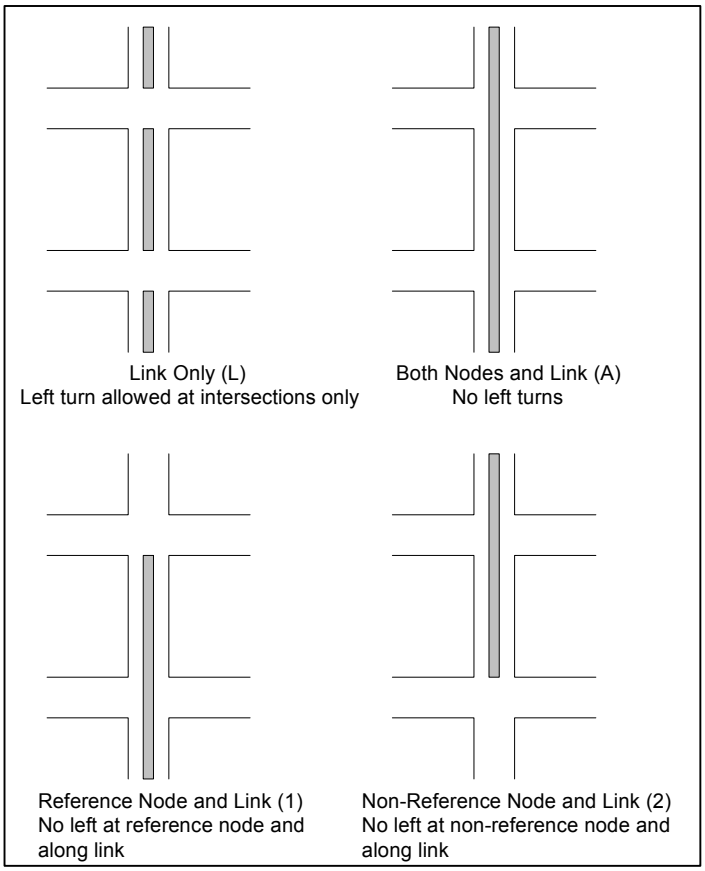


Figure 6-9

- *Divider* coding alone does not prevent all illegal driving manoeuvres when two or more non-divided links connect at the same node to a divided road on the same side. “Link Only” codes are applied with physical turn restrictions to indicate prohibited manoeuvres, as shown in *Figure 6-10*.

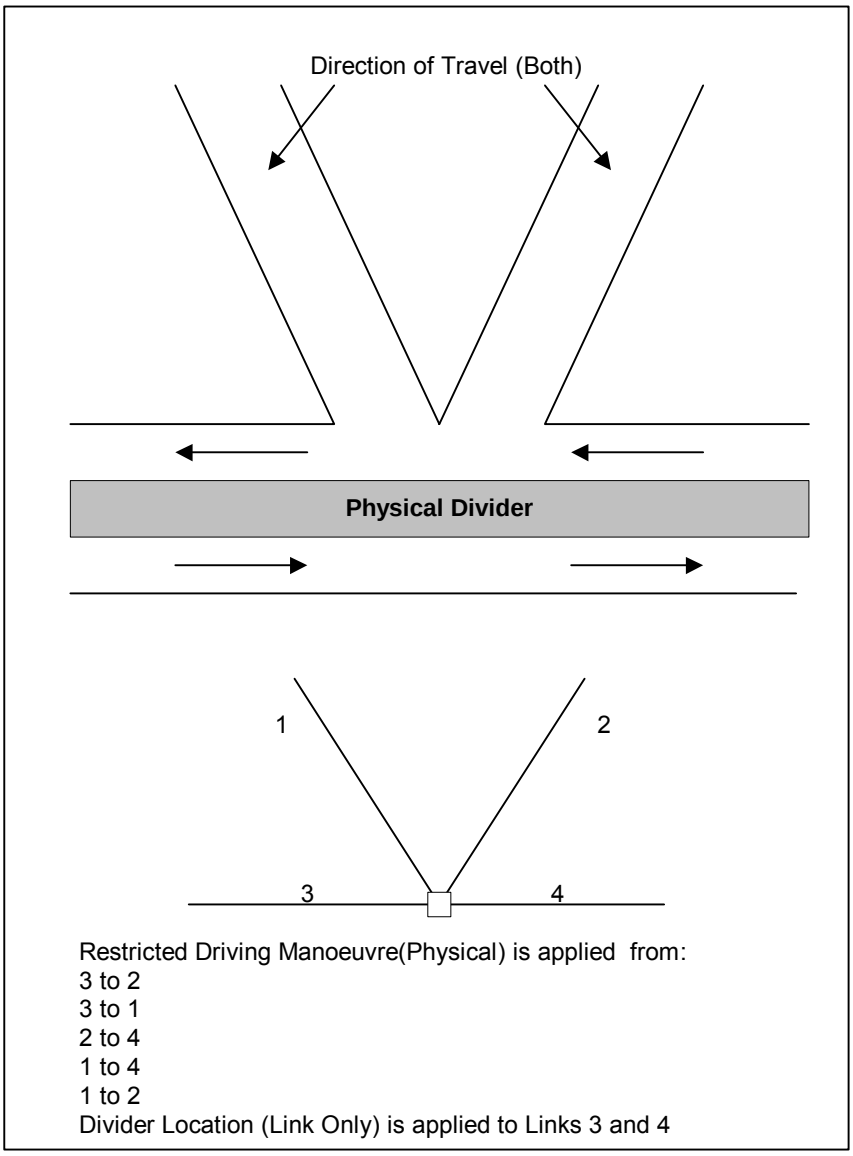


Figure 6-10

- If a divider is larger than 3 metres wide, the opposing lanes of traffic are separately digitised, and each link receives ***Multiply Digitised*** = 1 instead of ***Divider*** coding.

- Painted dividers which block an intersection but cannot be coded with Divider Location from both sides are coded using ***Restricted Driving Manoeuvres***. The ***Divider Legal*** attribute identifies if the divider is painted.

  - A physical divider which exists along a link and extends into or through the intersection but does not continue along the opposing link is coded

with ***Restricted Driving Manoeuvre*** = Physical and ***Divider Location*** = L as shown in *Figure 6-11.*

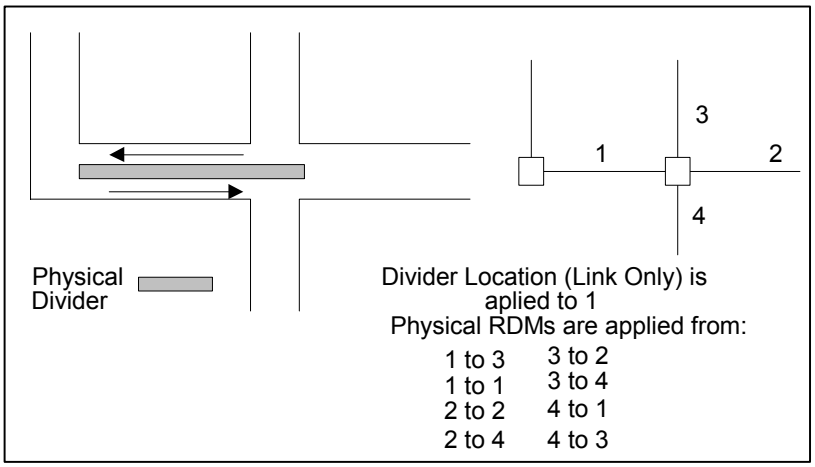


Figure 6-11

- In *Figure 6-12* a painted divider goes through the intersection. The following manoeuvres are prohibited in reality:

  Link 1 to Link 3

  Link 2 to Link 4

  Link 3 to Link 2

  Link 3 to Link 4

  Link 4 to Link 1

  Link 4 to Link 3

  Link 1 to Link 1 (No U-turn)

  Link 2 to Link 2 (No U-turn)

  Note: These prohibited manoeuvres do not exist in the database.

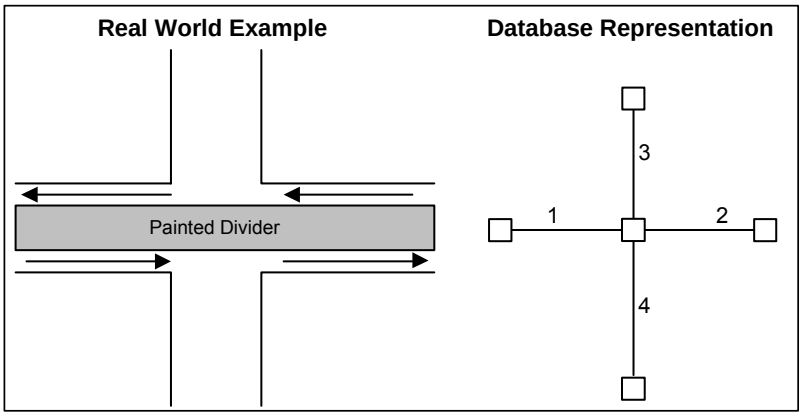


Figure 6-12

6.2.128 Divider Legal

Definition This attribute identifies whether or not divider is a legal (by statute only) or a physical divider.

Value Y - Legal Divider

N - Not Legal Divider

Length 1

Type Boolean

Usage In combination with the ***Divider*** attribute, enables a system to prevent left turns (in right-side driving countries), right turns (in left side driving countries), and U-turns at divided intersections and in the middle of divided roads.

Divider Legal identifies physically passable dividers for emergency vehicle routing applications.

A physical divider identifies a physical barrier that cannot be traversed.

Specification

- See ***Divider*** for additional information on divider coding.
- ***Divider Legal*** = Y when the divider is a physically passable barrier, such as painted lines, that prohibits traversal by statute only. See *Figure 6-13*. ***Divider Legal*** is only collected and coded when the divider goes through an intersection.
- In *Figure 6-13*, a painted divider (***Divider Legal***) goes through the intersection. The following manoeuvres are prohibited in reality:

  Link1 to Link 3

Link 2 to Link 4

Link 3 to Link 2

Link 3 to Link 4

Link 4 to Link 1

Link 4 to Link 3

Link 1 to Link 1 (No U-turn)

Link 2 to Link 2 (No U-turn)

Note: These turn restrictions do not exist in the database.

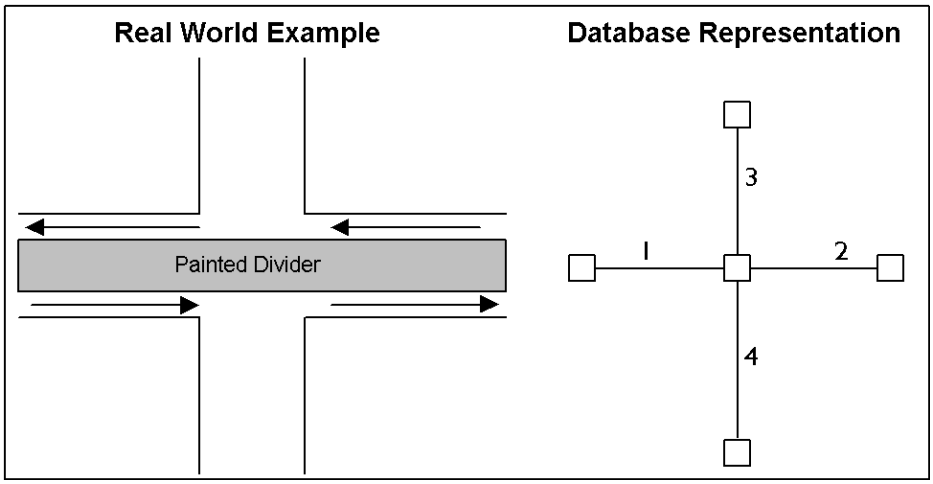


Figure 6-13

Link 1:

Divider = 2 (NonRef Node and Link)

Divider Legal = Y

Link 2:

Divider = 1 (Ref Node and Link)

Divider Legal = Y

Note: When necessary, an emergency vehicle can make any of the turns restricted here.

- For non-navigable links, ***Divider Legal*** is published as N.

6.2.129 Divider Location

The Divider Location is equivalent to the ***Divider***.

6.2.130 Driver Alert

Definition Driver Alert represents a set of conditions and condition attributes indicating features that can be used to alert drivers of certain dangerous situations or regulations. These features include Traffic Signs indicating overtaking restrictions, lane merges, railway crossings, etc. and warning zones.

Condition and Condition Attributes
- Traffic Sign
- Traffic Sign Type
- Traffic Sign Category
- Supplemental Sign Duration
- Supplemental Sign Pre-Warning
- Supplemental Sign Validity Time
- Supplemental Sign Applicable Vehicles
- Passing Restriction
- Protected Overtaking
- Railway Crossing
- Railway Crossing Type

Usage Driver Alert attributes can be used to give a pre-warning when approaching a situation that needs special attention.

6.2.131 Driving Side

Definition Identifies the legal driving side in a country

Value
- L – Left side driving
- R – Right side driving

Length 1

Type Text

Usage This attribute is critical for route calculation and route guidance

6.2.132 DNDC Region

Definition Identifies the 2-character region ID

Value

Length 2

Type Text

6.2.133 End of Link

Definition Specifies which end of the link the restricted driving manoeuvre applies to.

Value Blank - Condition applies to whole link

N - Condition applies to non-reference end of link

R - Condition applies to reference end of link

Length 1

Type Text

Specification

- ***End of Link*** identifies the end of the link at which a condition applies.
- ***End of Link*** is used when a condition applies to a single link (e.g., U-turn). If the condition applies to more than one link, ***End of Link*** is blank.
- ***Restricted Driving Manoeuvre*** End of Link = R (Reference) is applied when the condition applies to the reference end of a link.
- ***Restricted Driving Manoeuvre*** End of Link = N (Non-Reference) is applied when the condition applies to the non-reference end of a link.
- For HOV Lanes, ***End of Link*** is specified in case the HOV lane is on a both-way link.
  - ***End of Link*** = R is applied in case the HOV lane is present towards the Reference Node.
  - ***End of Link*** = N is applied in case the HOV lane is present towards the Non-Reference Node.

6.2.134 End Time

Definition Identifies the end time for the time period in which the condition is in effect.

Value HHMM

(Range to 2359)

Length 4

Type HM

Usage This enables dynamic route calculation. If the system does not consider this entire record it is either ignoring possible routes or using illegal ones during the specified times.

Specification
- If the condition applies all day, then the ***Start Time*** = 0000 and the ***End Time*** = 2359.

6.2.135 Enhanced Geometry

Definition ***Enhanced Geometry*** indicates that the geometry associated with a Link meets the positional accuracy.

Value Y - Enhanced Geometry

N - Not Enhanced Geometry

Length 1

Type Boolean

Usage ***Enhanced Geometry*** may be used to identify links with an enhanced level of geometrical accuracy.

Specification
- ***Enhanced Geometry*** is only published in European, Continental U.S., and Alaskan databases.
- ***Enhanced Geometry*** is indicated for each link where the requirements for geometrical accuracy are met.
- Positional Accuracy is +/- 5 metres.

6.2.136 Exclude Date

Definition Identifies exceptions to the previously published Date/Time Modifiers.

Value Y - Exclude Date

N - Not an Exclude Date

Length 1

Type Boolean

Usage This enables dynamic route calculation. If the system does not consider this entire record it is either ignoring possible routes or using illegal ones during the specified times.

6.2.137 Exit Number

Definition ***Exit Number*** identifies a name that is an (alpha)numeric exit name.

Value Y - Exit Name

N - Not an Exit Name

Length 1

Type Boolean

Usage An exit number (***Exit Number*** = Y) as a feature name can be used for destination selection.

Specification

- ***Exit Number*** = Y is only applied to the first ramp link of an exit. The exit number is applied as a ***Feature Name***.
- Applies to navigable linear features only.

6.2.138 Exonym

Definition An exonym is a name in a foreign language (i.e. a language that is not considered official within a given administrative area).

Rules

- An exonym is included only when the spelling of the name is different from the spelling in the country's official language(s).
- For Europe, exonyms are entered for nationally important POIs (e.g. Eiffel Tower).
- Exonyms may be translations of the official name.
- Canada Specific:
  - In Quebec province, one POI is entered for all categories (except Named Place POI). If the POI has both an English and French name, the French name is used as the base POI. The English name is entered as an exonym. When multi-language street names exist, the POI is assigned to the French street name.
- See ***POI Name*** for specific information regarding exonyms applied to Airport POIs.

6.2.139 Expiration Date

Definition Identifies the end date of the Date/Time Modifier for ***DTM Types*** = A-I.

DTM Type	DTM Type Description	Value Examples	Description
A	Date Ranges	**YYYYMMDD** **20020524**	YYYY is the year MM is the month DD is the day
C	Day of Month	**DDDD0000** **00260000**	DDDD is a value in the range 0001-0031
D	Day of Week of Month	**DDDDWWWW** **00010004**	DDDD is a value in the range 0001-0007 Where 0001 is Sunday, 0002 is Monday, etc… WWWW is a value in the range 0001-0005
E	Day of Week of Year	**DDDDWWWW** **00060023**	DDDD is a value in the range 0001-0007 Where 0001 is Sunday, 0002 is Monday, etc… WWWW is a value in the range 0001-0052
F	Week of Month	**WWWW0000** **00030000**	WWWW is a value in the range 0001-0005
H	Month of Year	**MMMM0000** **00080000**	MMMM is a value in the range 0001-0012
I	Day of Month of Year	**DDDDMMMM** **00070007**	DDDD is a value in the range 0001-0031 MMMM is a value in the range 0001-0012
1[1]	Daymask	**XXXXXX-X** **NYYYYYN**	Each X is a Boolean flag starting with Sunday
2[1]	External	Easter	Easter is the only external date defined. Easter is only published for European databases.

1. DTM Types = 1 and 2 are left justified and padded with blanks on the right.

Length 8

Type Text

Usage This enables dynamic route calculation. If the system does not consider this entire record it is either ignoring possible routes or using illegal ones during the specified times.

Specification • ***DTM Types*** = 1 and 2 will not have an ***End Date***.

6.2.140 Explicatable

Definition ***Explicatable*** indicates which names should be used to identify a given road when providing directions.

Value Y - Explicatable

N - Not Explicatable

Length 1

Type Boolean

Usage Names with ***Name on Road Sign*** = Y or ***Exit Number*** = Y are always suitable for explication. Other names on a link may or may not be. The ***Explicatable*** flag will show this.

Names which are ***Explicatable*** = N are included in the database to assist in destination selection but are not recommended for route guidance.

Specification

- A name is identified as ***Explicatable*** = Y when it is a legal name or the name on road sign for a road.
- A name is identified as ***Explicatable*** = N when it is:
  - obtained from a postal service file and is known to be misspelled, or its ***Prefix***, ***Suffix***, or ***Street Type*** is incorrect.
  - an old street name which no longer appears on any sign but is still in use.
  - a name that represents a named building (IBM Plaza).
  - a name that people commonly misunderstand or misrepresent when referring to a road.
- Applies to navigable linear features only.

6.2.141 Facility Name

The Facility Name is equivalent to the ***POI Name***.

6.2.142 Facility Name Language Code

The Facility Name Language Code is equivalent to the ***Language Code***.

6.2.143 Facility Name Type

The Facility Name Type is equivalent to the ***POI Name Type***.

6.2.144 Facility Type

Definition A 4-digit code that is used to categorise the POIs.

Value For values, see *Section , Listing of POIs by Feature Code* or refer to *Section D.2.17, FACILITY - Facility Type*.

Length 5

Type Numeric

6.2.145 Feature Code

Definition Identifies the Grouped Structure/Grouped Complex with a predefined feature code. The feature code is optional. Codes can be found in the Metadata Reference Table. (MtdRef).

Value nnnnnnn

Length 7

Type Numeric

6.2.146 Feature ID

Definition Unique identifier for the feature. This is the database Path ID.

Value nnnnnnnnnn

Length 10

Type Numeric

Usage ***Feature ID*** is used as a reference to features in the database.

Specification
- Feature IDs are unique. Every street with the same name within a sub-region will have the same Feature ID.

6.2.147 Feature Description

Definition The Risk Prone Area Feature's descriptive text.

Value

Length 40

Type Text

6.2.148 Feature Name

Definition The base name of the feature. It is a numbered route, local name, or a commonly accepted name for a feature. It is the main part of the street name minus the prefix, street type, and suffix.

Value

Length 35

Type Text

Usage The ***Feature Name*** should be used for route guidance and destination selection along with the ***Name Prefix***, ***Street Type***, and ***Name Suffix*** that exist for a given feature.

For street names, the ones indicated by ***Name on Road Sign*** should be used for route guidance.

Specification

- Some countries contain names that can only be represented in Unicode (e.g. Russia). Name records for ***Feature Name*** will be represented in the DNDC with ***Language Code*** = CYT and are supported by the delivery of a companion External Unicode “look-aside” file. See *Section A.3, External Unicode File Format* for details.
- Refer to *Section , General Naming Rules* later in this chapter.

6.2.149 Feature Type

Definition An identifier that distinguishes different feature categories.

Value

Feature Code	Description
500111	Marsh
500116	Ocean
500412	River
500413	Intermittent River[1]
500414	Canal/Water Channel
500421	Lake
507116	Bay/Harbour
509998	Beach

Feature Code	Description
509999	Island
600101	Hurricane Prone Area
900101	City
900103	Park/Monument (National)
900107	Native American Reservation
900108	Military Base
900130	Park (State)
900140	Park in Water
900150	Park (City/County)
900156	Built Up Area
900158	Pedestrian Zone
900159	Undefined Traffic Area
900170	County
900202	Woodland
900300	Elevation[2]
907196	Country
908000	Cartographic Country Boundary
908001	Cartographic State/Province Boundary
908002	Neighbourhood[3]
908003	Colonia[1]
909996	State
1700215	Parking Lot
1700216	Parking Garage
1800201	Railroad
1900403	Airport
1907403	Aircraft Roads
2000123	Golf Course
2000124	Shopping Centre
2000200	Industrial Complex
2000403	University/College
2000408	Hospital
2000420	Cemetery
2000457	Sports Complex

Feature Code	Description
2009000	Business/Commerce Building/Landmark
2009001	Convention/Exhibition Building/Landmark
2009002	Cultural Building/Landmark
2009003	Education Building/Landmark
2009004	Emergency Service Building/Landmark
2009005	Government Building/Landmark
2009006	Historical Building/Landmark
2009007	Medical Building/Landmark
2009008	Park/Leisure Building/Landmark
2009009	Residential Building/Landmark
2009010	Retail Building/Landmark
2009011	Sports Building/Landmark
2009012	Tourist Building/Landmark
2009013	Transportation Building/Landmark
2500003	Landmark Point
9992000	RDS-TMC
9997004	Congestion Zone[4]
9998002	Beginning of Chain (Used to identify Parking Lanes)
9999999	Road Network

1. Included in Mexico only.
2. Only the metadata for this feature type is published in a standard map SIF. Elevation data is published in a separate Elevation Contours™ SIF+. See *Section 45.3, Elevation ContoursTM* for details.
3. Not published in a standard SIF+ Extract but in conjunction with Discover Cities. See *Section 45.12, Discover Cities* for details.
4. Included in London and Stockholm only.

Length 7

Type Numeric

Usage Feature Type can be used to identify the functionality of the link for usage in destination selection, route guidance, map display, and route calculation.

Specification
- Refer to *Section C.4, Administrative Level Coding and Boundary Features* for administrative Feature Types defined for each country.

- The Feature Type of 9992000 distinguishes RDS-TMC features from street names.

- See end of this chapter for naming rules specific to certain feature types (other than administrative features).

- The Feature Type 9998002 will not be published on any link in a NAVSTREETS file.

Building/Landmark Polygons

- The ***Feature Type*** of a ***Building/Landmark*** polygon is determined by the ***Facility Code*** of the POI that corresponds to the same building or landmark. See *Table 6-6*.

Building/Landmark Feature Type	Feature Type Code	POI Category	Facility Code
Business/Commerce	2009000	Bank	6000
		Business Facility	5000
		Hotel	7011
		Parking Garage/House	7521
Convention/Exhibition	2009001	Convention/Exhibition Centre	7990
Cultural	2009002	Civic/Community Centre	7994
		Library	8231
		Museum	8410
		Performing Arts	7929
		Place of Worship	9992
Education	2009003	Higher Education	8200
		School	8211
Emergency Service	2009004	Police Station	9221
Government	2009005	City Hall	9121
		County Council	9994
		Court House	9211
		Embassy	9993
		Government Office	9525
		Post Office	9530
Historical	2009006	Historical Monument	5999

Building/Landmark Feature Type	Feature Type Code	POI Category	Facility Code
Medical	2009007	Hospital	8060
		Medical Service	9583
Park/Leisure	2009008	Amusement Park	7996
		Bar or Pub	9532
		Bowling Centre	7933
		Campground	9517
		Casino	7985
		Cinema	7832
		Golf Course	7992
		Ice Skating Rink	7998
		Marina	4493
		Nightlife	5813
		Park/Recreation Area	7947
		Public Sports Airport	4580
		Ski Resort	7012
		Winery	2084
Retail	2009010	Book Store	9995
		Clothing Store	9537
		Consumer Electronics Store	9987
		Convenience Store	9535
		Department Store	9545
		Grocery Store	5400
		Home Improvement & Hardware Store	9986
		Home Specialty Store	9560
		Office Supply & Service Store	9988
		Pharmacy	9565
		Restaurant	5800
		Shopping	6512
		Specialty Store	9567
		Sporting Goods Store	9568
Sports	2009011	Sports Centre	7997
		Sports Complex	7940

Building/Landmark Feature Type	Feature Type Code	POI Category	Facility Code
Tourist	2009012	Tourist Attraction	7999
		Tourist Information	7389
Transportation	2009013	Airport	4581
		Bus Station	4170
		Commuter Rail Station	4100
		Ferry Terminal	4482
		Train Station	4013
N/A	N/A	ATM	3578
		Auto Dealership Used Cars	5512
		Automobile Club	8699
		Automobile Dealership	5511
		Auto Service & Maintenance	7538
		Border Crossing	9999
		Cemetery	9591
		Coffee Shop	9996
		Guest House	7013
		Hamlet	9998
		Highway Exit	9592
		Industrial Zone	9991
		Motorcycle Dealership	5571
		Named Place	4444
		Park and Ride	7522
		Parking Lot	7520
		Petrol/Gasoline Station	5540
		Public Restroom	9589
		Rental Car Agency	7510
		Residential Area/Building	9590
		Rest Area	7897
		Transportation Service	9593

Table 6-6

- In cases where multiple POIs with the same name exist (with different ***Facility Codes***), the ***Feature Type*** of the ***Building/Landmark*** polygon reflects the primary category.

- All ***Building/Landmark*** polygons within a cluster have the same ***Feature Type***. For example, a library or residential building on a university campus has the ***Feature Type*** = 2009003 (Education Building/ Landmark).

- **Note:** A cluster is defined as a group of adjacent ***Building/Landmark*** polygons that together represent a single entity. For example, a hospital complex may have several separate buildings that together represent the hospital.

- All ***Building/Landmark*** polygons within a cluster have the same name, which identically matches the corresponding POI name.

- In a few rare cases, when a building or landmark is significant and a POI does not already exist, a corresponding POI is added. See *Table 6-7.*

Building or Landmark	POI added as	Building/Landmark Feature Type Description	Feature Type
Church	Tourist Attraction	Cultural	2009002
Post Office	Business Facility	Government	2009005
Residential Building	Tourist Attraction	Residential	2009009

Table 6-7

6.2.150 Ferry Type

The Ferry Type is a combination of ***Boat Ferry*** and ***Rail Ferry***.

6.2.151 File Name

Definition A textual description of the associated file name. This is used to find the file is the look-aside file.

Length 150

Type Text

6.2.152 File Type

Definition The type of the contents published within the file. Possible values are 11 - 3D Landmark Model Standard, 12 - 3D Landmark Model Light.

Value nn

Length 2

Type Numeric

6.2.153 Four-Wheel Drive

Definition Identifies roads which are suitable only for vehicles with Four-Wheel drive.

Value Y - Four Wheel Drive

N - not Four-Wheel Drive

Length 1

Type Boolean

Usage ***Four-Wheel Drive*** is primarily used for cartographic representation (map display). This attribute can also affect routing algorithms by assigning higher penalties to Four-Wheel drive roads.

Specification

- ***Four-Wheel Drive*** is applied to navigable geometry suited for use only by four-Wheel drive vehicles.
- ***Four-Wheel Drive*** is not applied to navigable geometry that is suitable for use by vehicles not equipped with four-Wheel drive.
- ***Access Characteristics/Vehicle Types*** on links coded ***Four-Wheel Drive*** should be as follows:
  - ***Autos***
  - ***Emergency Vehicles***
  - ***Through Traffic***
  - ***Buses*** - reflect access in reality
  - ***Carpools*** - reflect access in reality
  - ***Deliveries*** - reflect access in reality
  - ***Pedestrians*** - reflect access in reality
  - ***Taxis*** - reflect access in reality
  - ***Trucks*** - reflect access in reality

- Links coded ***Four-Wheel Drive*** receive the following default attribute values:
  - ***Speed Category*** = <11 KPH/< 6 MPH)
  - ***Functional Class*** = 5
  - ***Paved*** = No

6.2.154 From End

Definition This attribute allows time to be specified “from the end” of a standard time period such as month and year.

Value Y - From End

N - Not from End

Length 1

Type Boolean

Usage This enables dynamic route calculation. If the system does not consider this entire record it is either ignoring possible routes or using illegal ones during the specified times.

Specification
- This attribute is not applied when the Date/Time Modifier is Day of Month, Day of Week of Year, or Week of Year.
- For example, if Day of Week of Month is specified as the Date/Time Modifier Type and Day = 02, Week = 01, and ***From End*** = Y. The time represented would be the Last Monday of the month.

6.2.155 From Extended Lanes

Definition ***From Extended Lanes*** indicates the total number of lanes in the direction of travel indicated by the attribute.

Note: The value “00” is published if the number of extended lanes is not known.

Value 00-16

Note: Note: NAVTEQ supports up to 16 lanes in each direction of travel.

Length 2

Type Numeric

Specification
- Positional accuracy is within +/- 50 metres of lane change.
- The following types of lanes are explicitly counted in the lane count:

- Ramp Transition Lanes (Motorway Deceleration Lanes)
- Turn Lanes at an intersection
- Bus/Taxi/Truck lanes
- High Occupancy Vehicle lanes

Note: NAVTEQ currently publishes the From Number of Lanes and To Number of Lanes attributes but the rules for counting lanes are different. See *Figure 6-14*.

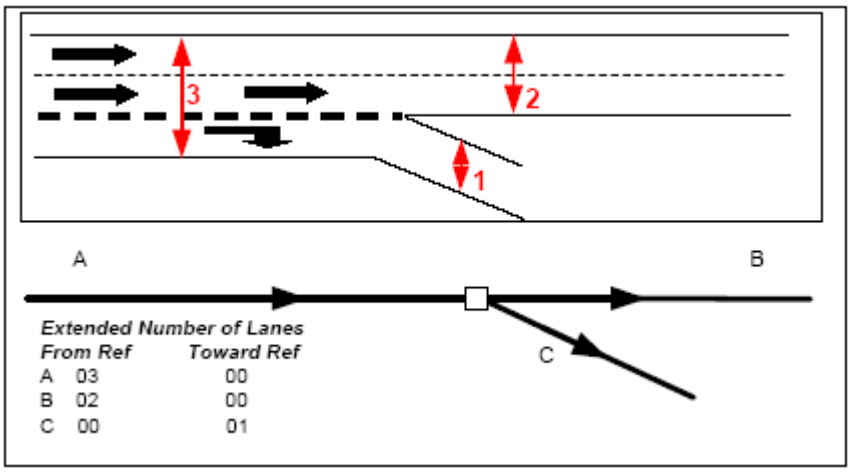


Figure 6-14

6.2.156 From Lanes

The From Lanes is equivalent to the ***From/To Number of lanes***.

6.2.157 From/To Number of Lanes

Definition ***From/To Number of Lanes*** indicates the number of lanes applicable for each direction of travel on the link.

Value 1 - 15

Default Value None

Length 2

Type Numeric

Usage

From/To Number of Lanes can be used for cartographic representation of road widths on printed maps, as well as traffic management and display applications. ***From/To Number of Lanes*** may also be used for route guidance timing.

Specification

- ***From/To Number of Lanes*** is only published in European, Continental U.S., and Alaskan databases.
- ***From Number of Lanes*** specify the number of lanes from the Reference Node.
- ***To Number of Lanes*** specify the number of lanes towards the Reference Node.
- Positional accuracy is within +/-50 metres.
- High Occupancy Vehicle lanes are counted as lanes.
- In general, lanes that are not used as the main driving path are not counted. The following type of lanes are not counted as Lanes:
  - Shoulder Lanes (Emergency lanes)
  - Ramp Transition Lanes
  - Turn Lanes at intersection
  - Parking lanes at the side of the road
  - Bus/Taxi/Truck lanes
  - Lanes exclusively used for overtaking. (These types of lanes are sometimes present in hilly areas in order to overtake slow traffic. These lanes however are not used as the main driving path).
- For reversible lanes:
  - If a reversible lane is separately digitised, as shown in *Figure 6-15*, ***From/To Number of Lanes*** = the actual number of lanes. In the example below, ***From/To Number of Lanes*** = 1.

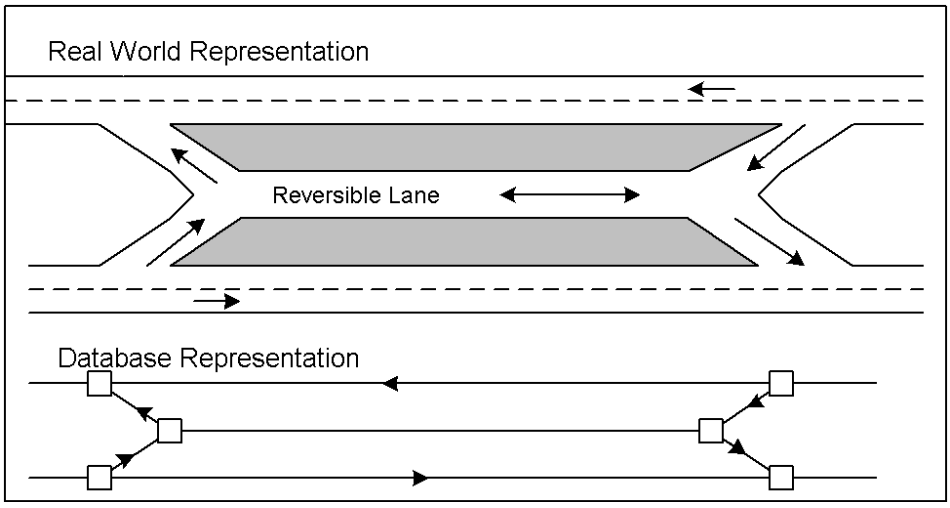


Figure 6-15

- If a reversible lane(s) is just an extra lane, not separately digitised, and accessible to autos, the following guidelines were used to apply ***From/To Number of Lanes***. For roads with an even number of total lanes, ***From/ To Number of Lanes*** will equal half of the total number of lanes. If the road has an odd number of lanes, ***From/To Number of Lanes*** will equal half of the total number of lanes minus 1. See *Figure 6-16.* If the lane is not accessible to automobiles, bus-only, etc., then the lane is not counted in the ***From/To Number of Lanes.***

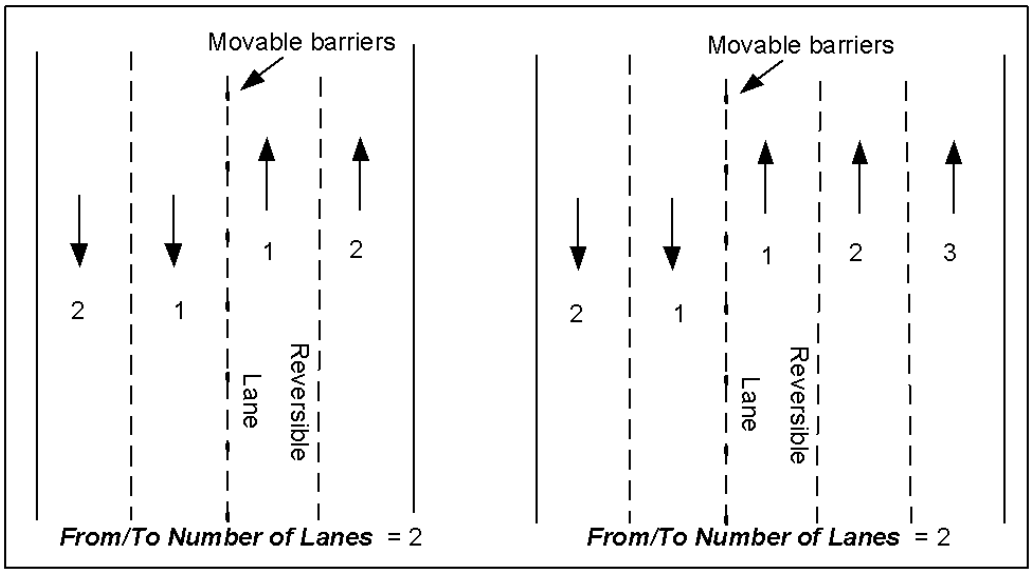


Figure 6-16

- On the following pages are examples of lane configurations and how they are coded in the NAVSTREETS source data file format (SIF+).

Ramp Transition Lane

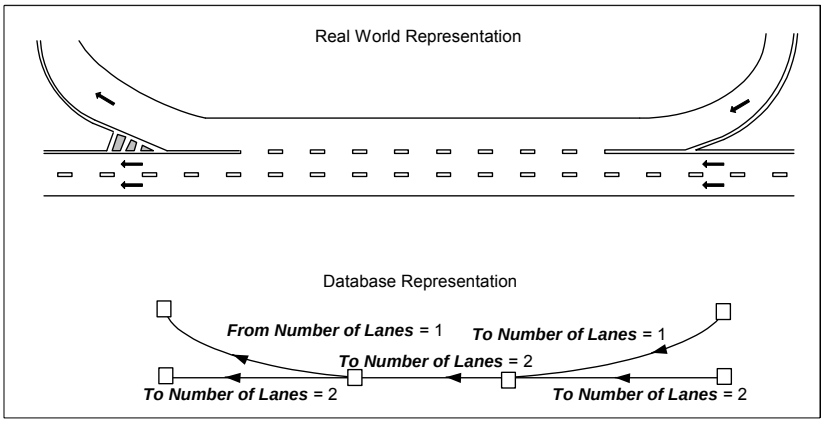


Figure 6-17

Ramp Merge

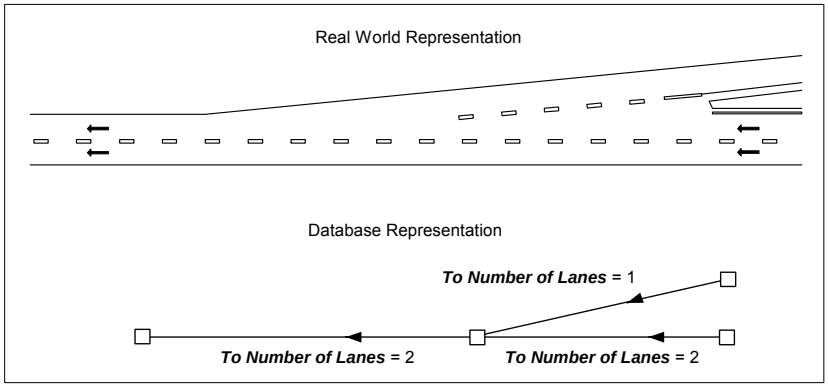


Figure 6-18

Bifurcations

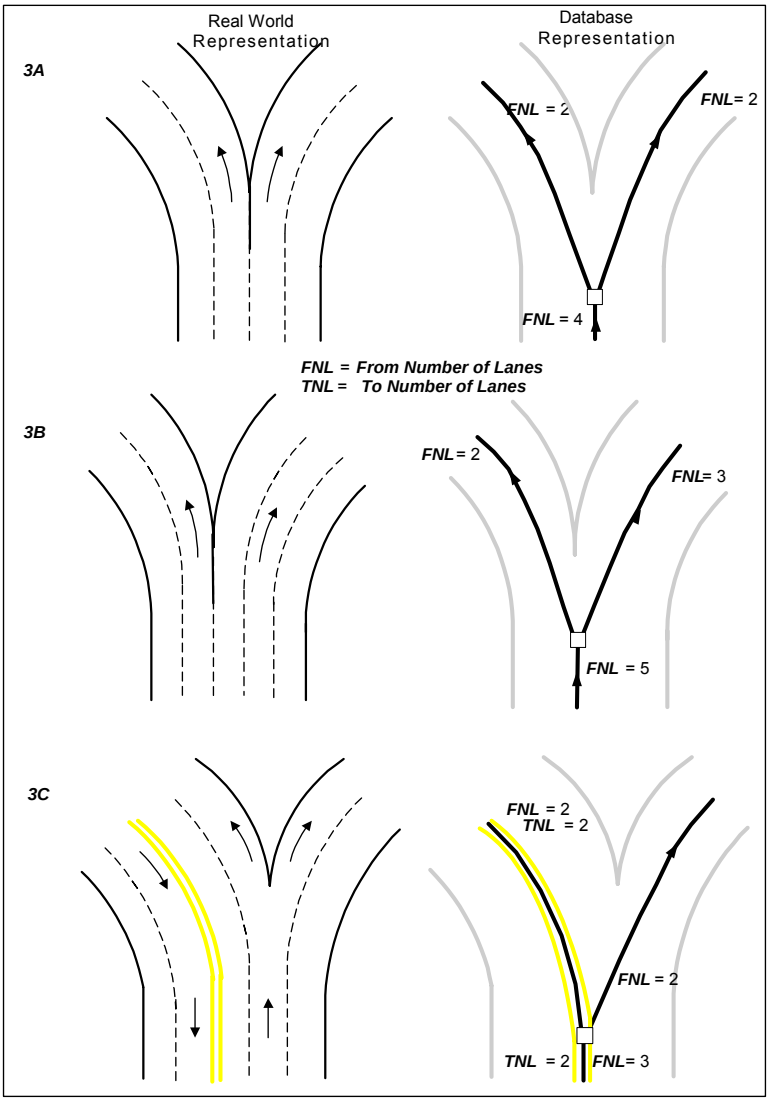


Figure 6-19

Turn Lanes on Multiply Digitised Road

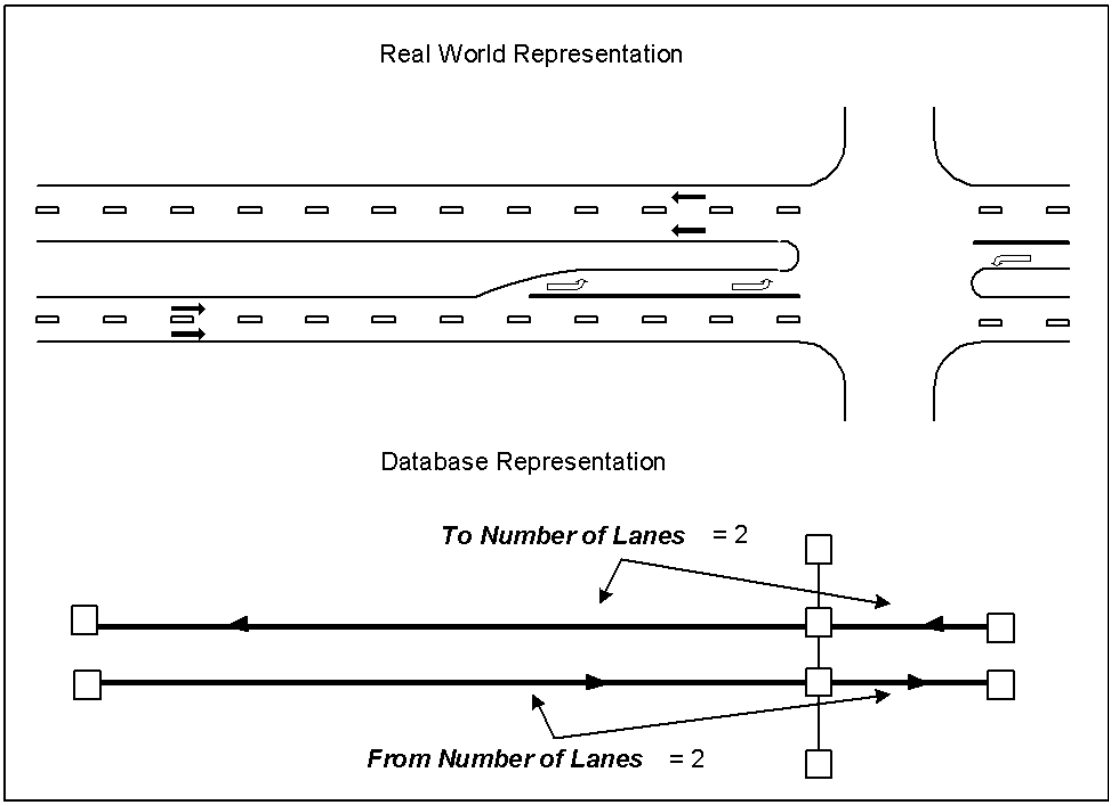


Figure 6-20

Turn Lanes on Singly Digitised Road

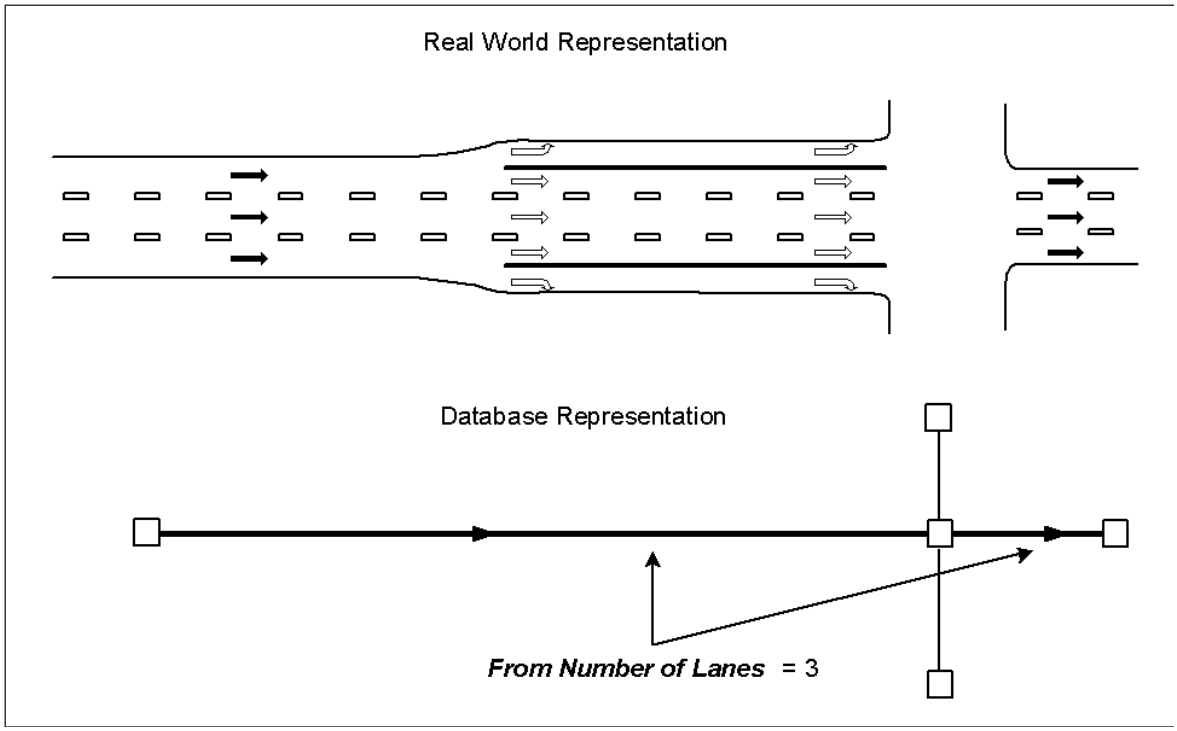


Figure 6-21

Centre Turn Lanes

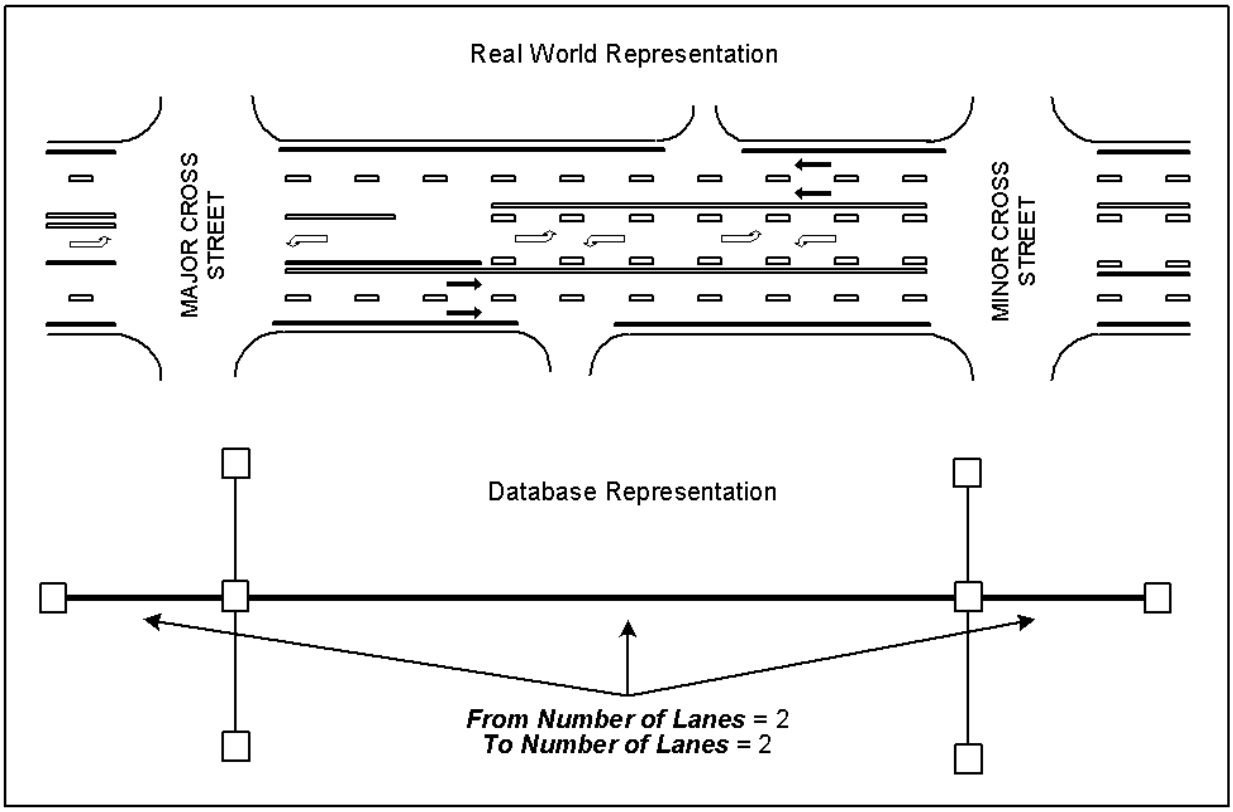


Figure 6-22

Lane Merge

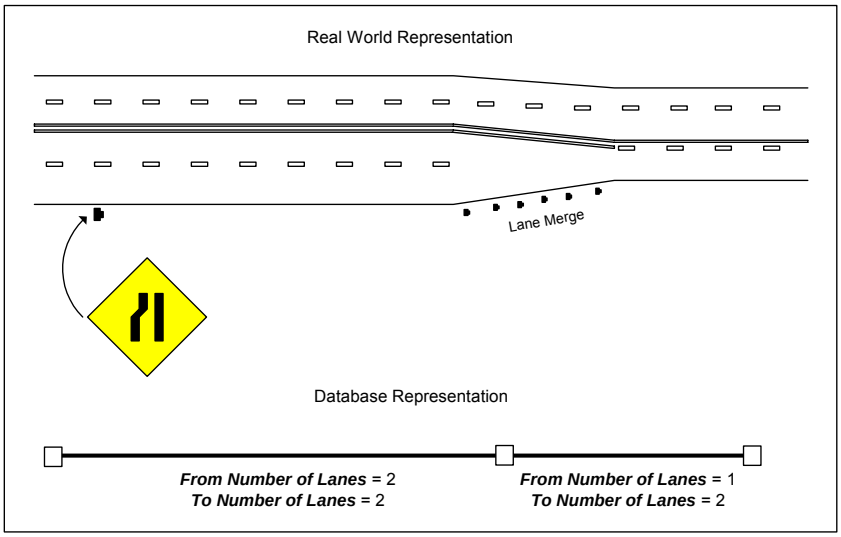


Figure 6-23

Left Turn Lanes

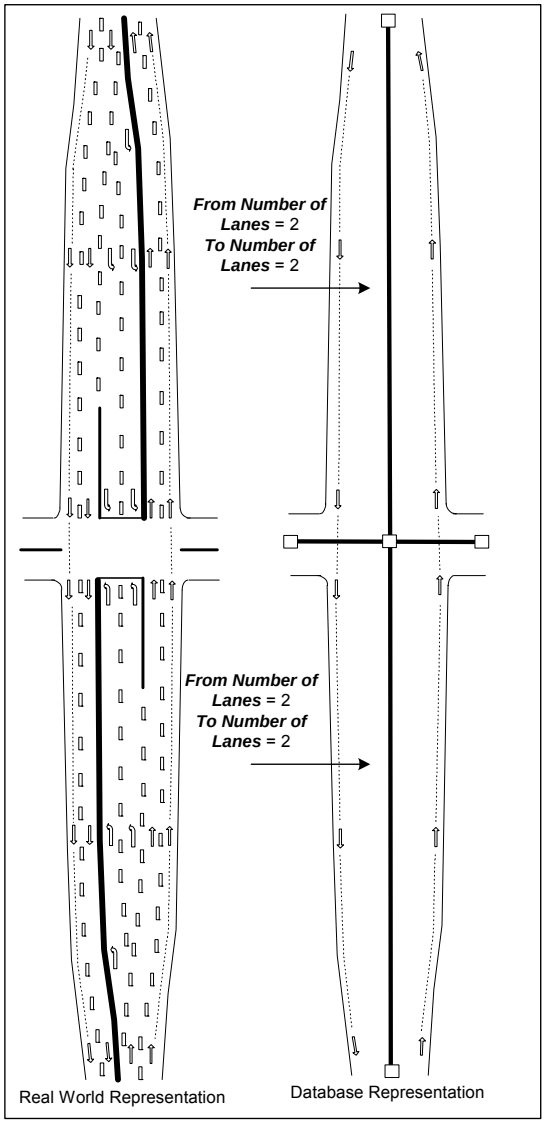


Figure 6-24

Centre bus/taxi lane (Lane 2 northbound)

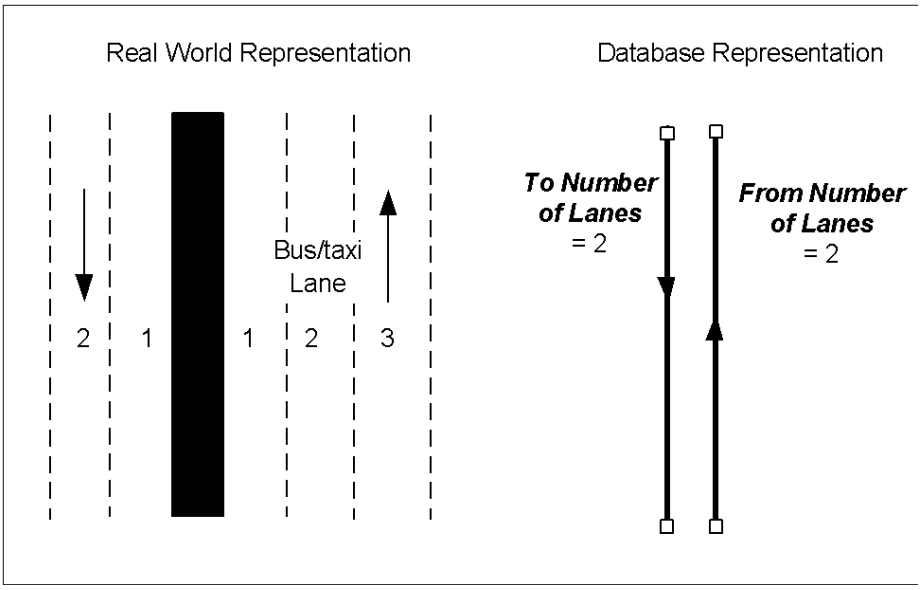


Figure 6-25

Note: Bus/Taxi lanes are not counted for applying the ***Number of Lanes***.

6.2.158 From Reference Speed Limit

The From Reference Speed Limit is equivalent to the ***From/Toward Speed Limit***.

6.2.159 From/Toward Reference Speed Limit

Definition ***From/Toward Speed Limit*** is the posted or legal speed limit in each travel direction on a road.

Value 1 - 999

Length 5

Type Numeric

Usage ***Speed Limit*** may be used to estimate link traversal times, to prioritise link selection during route calculation, to calculate timing of the route guidance, and for display purposes.

Specification

- ***From/Toward Reference Speed Limit*** is the maximum legal speed allowed on the road.
- Positional accuracy is within +/-50 metres.

- ***From/Toward Reference Speed Limit*** is included for Links with ***Enhanced Geometr***y = Y.

- A ***From/Toward Reference Speed Limit*** value can exist on Links with ***Enhanced Geometry*** = N.

- ***From/Toward Reference Speed Limit*** is indicated for a road in the measurement system used in a particular country. This means that speeds posted in kph are entered with their kph value and speeds posted in mph are entered with their mph value.

- ***From/Toward Reference Speed Limit*** values are collected and included only when applicable to autos (not autos with trailers, trucks, or any other configuration).

- ***From/Toward Reference Speed Limit*** is based either on overall country/ administrative rules, posted signs, or road markings.

- When there is no posted sign a default ***From/Toward Reference Speed Limit*** value is implemented. Defaults are based on administrative-wide regulations.

- When a road has a different speed during certain times, the ***From/Toward Reference Speed Limit*** value is based on the speed that applies most of the time. The additional speed limit information is included as a ***Special Speed Situation*** Condition.

  For example, night-time speeds are in effect on some roads in Montana. In this case, day-time speed is predominant, and thus is used as the ***From/Toward Reference Speed Limit*** value, while the night-time speed is included as a ***Special Speed Situation***. Signs describing seasonal changes will be evaluated on an individual basis.

- For roads that allow an unlimited speed, the ***From/Toward Reference Speed Limit*** value is 999. For example, many motorways in Germany do not have a maximum speed.

- The ***From/Toward Reference Speed Limit*** value for turn lanes is the lowest speed of the connecting roads.

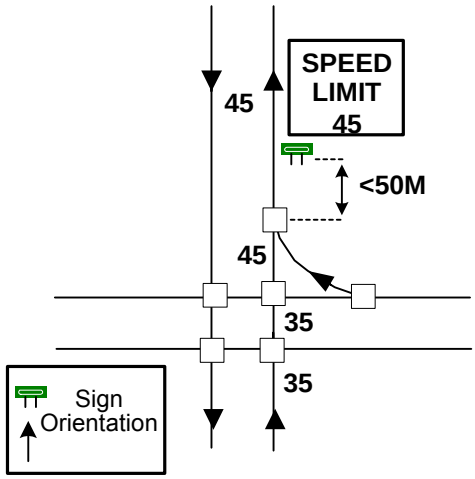
- When a speed changes within 50 metres of an intersection, the speed attribute change is coded from the intersection. See *Figure 6-26*.

- When a speed change occurs that is not within 50 metres of an intersection, any existing node within +/-50 metres of the sign is used to code the speed change. If an existing node is not available, a node is added. See *Figure 6-27* and *Figure 6-28*.

- When there are different speed limits on each side of a bi-directional Link, the appropriate ***The From/Toward Reference Speed Limit*** is applied. See *Figure 6-29* and *Figure 6-30.*

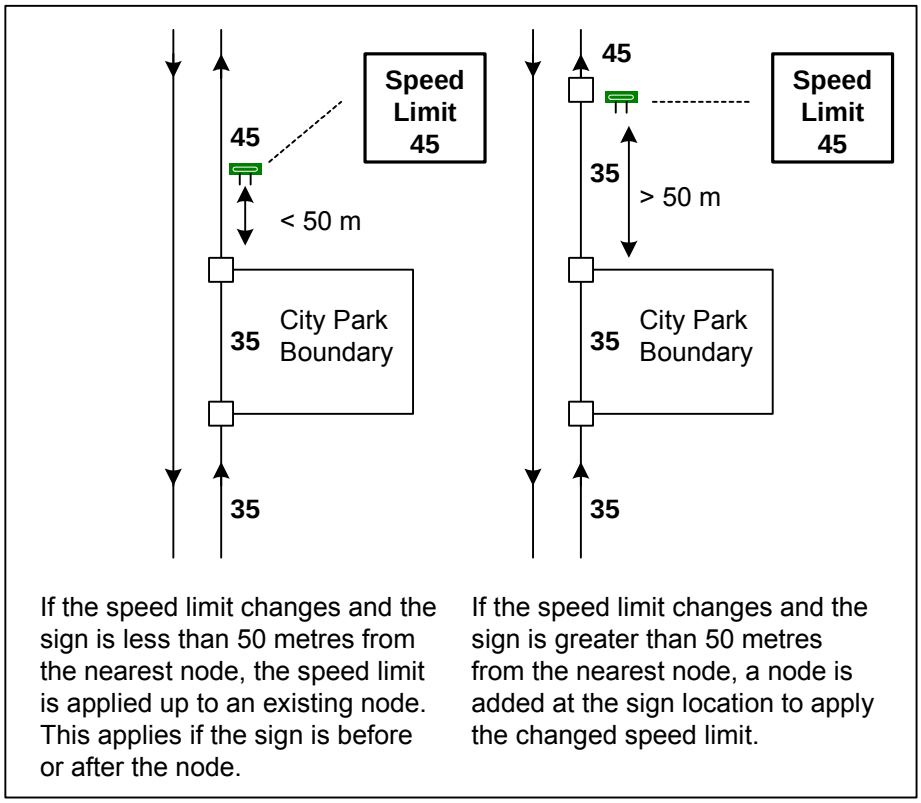
- In the U.S., all ramps receive ***From/Toward Reference Speed Limit*** = 998. Since there are no posted speed limits for ramps, a default value of 998 is used.

- In Europe, if no posted speed limit or motorway symbol exists, ramps receive ***From/Toward Reference Speed Limit*** = 998.



Speed limit changes that are within 50 metres of an intersection will be applied up to that intersection. This applies if the sign is before or after the intersection. (Turn lanes are considered part of the intersection.)

Figure 6-26



If the speed limit changes and the sign is less than 50 metres from the nearest node, the speed limit is applied up to an existing node. This applies if the sign is before or after the node.

If the speed limit changes and the sign is greater than 50 metres from the nearest node, a node is added at the sign location to apply the changed speed limit.

Figure 6-27

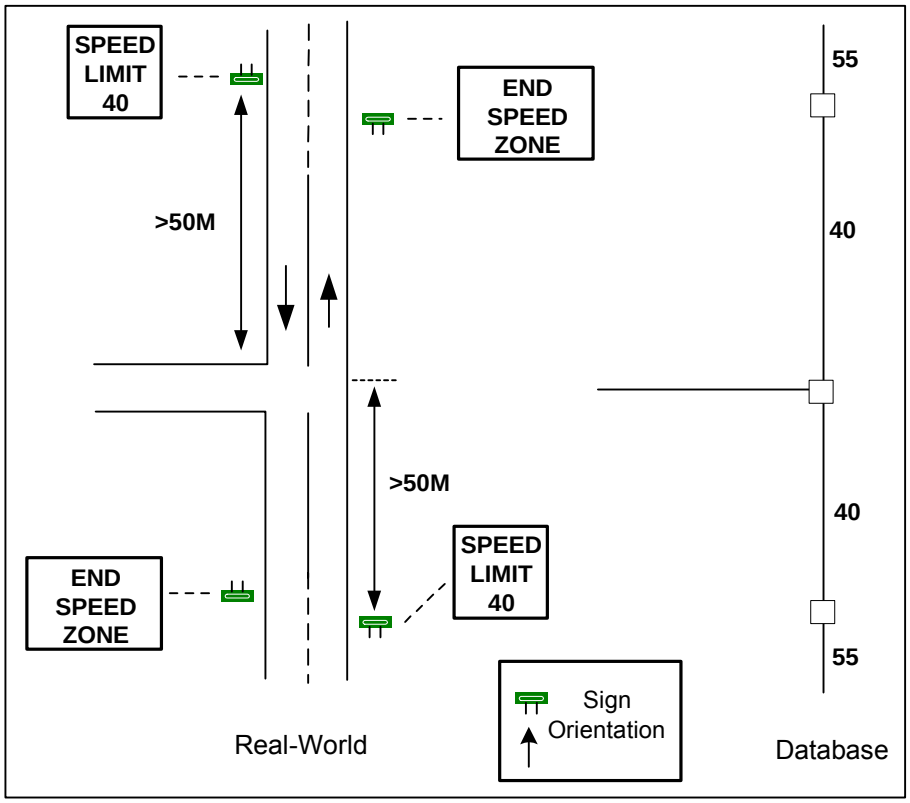

SPEED LIMIT 40
END SPEED ZONE
>50M
>50M
SPEED LIMIT 40
END SPEED ZONE
Sign Orientation
Real-World
Database
55
40
40
55

Figure 6-28

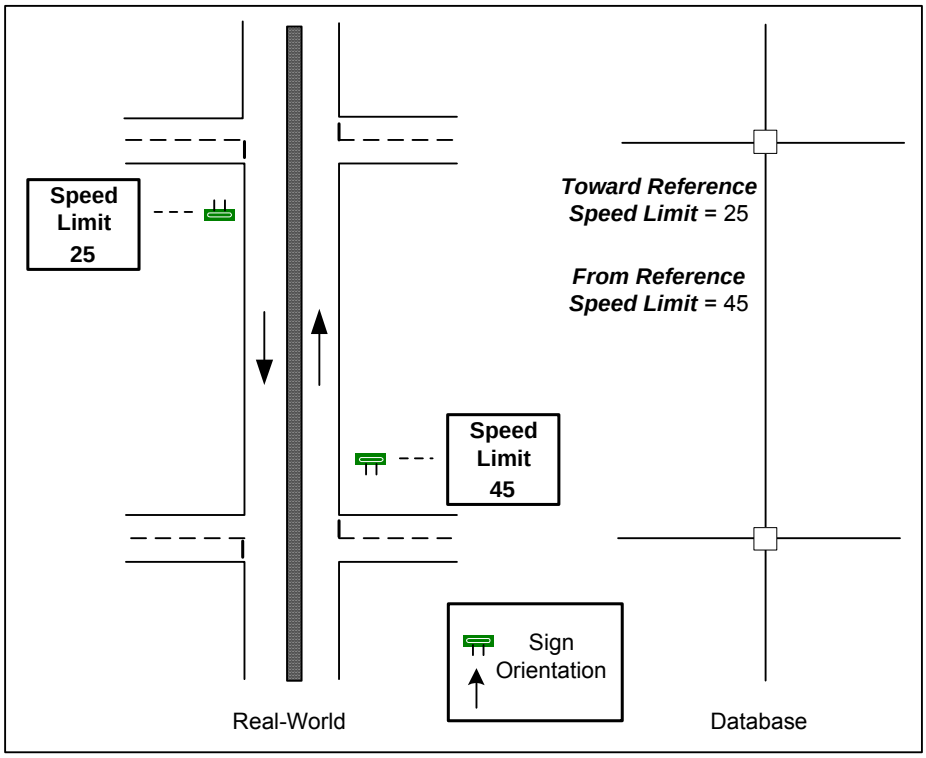

Speed Limit 25
Toward Reference
Speed Limit = 25
From Reference
Speed Limit = 45
Speed Limit 45
Sign Orientation
Real-World
Database

Figure 6-29

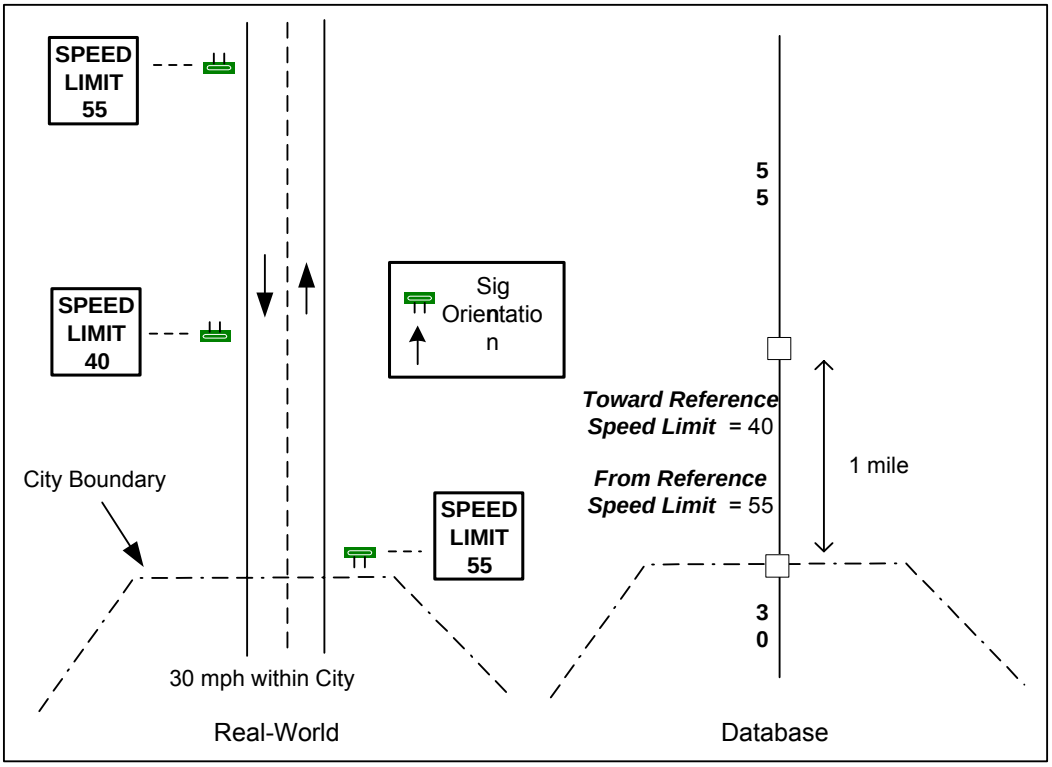


Figure 6-30

6.2.160 Frontage Road

Definition Frontage Roads (aka Service Roads) are local roads that run parallel to and usually contain the name(s) and addresses of a road with a higher traffic flow.

Value Y - Frontage Road

N - Not a Frontage Road

Length 1

Type Boolean

Usage When it is necessary to be guided along the ***Frontage***, the flag enables navigation systems to provide an appropriate message, for example, "take the Frontage Road."

This attribute enables better route guidance, if this attribute is not taken into consideration, a system might say "you are approaching an intersection of many Main Streets. Take the one in the middle." The ***Frontage*** flag indicates that

although the name of the road is the same, the functionality is different. In this way, the strange explications can be avoided.

Specification • ***Frontage*** = Y is applied to all links that meet the following criteria:

- The road runs parallel to and contains the name and addresses of the main road.
- The road allows direct access to residences, businesses, and side streets.
- See *Figure 6-31*.

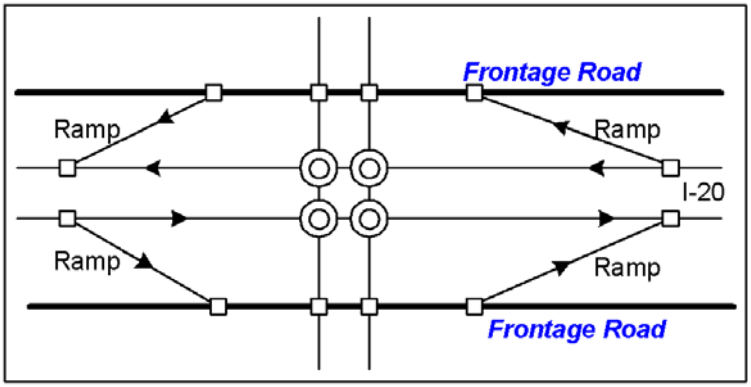


Figure 6-31

- Links that only lead to the frontage road receive ***Frontage*** = Y, while other intersecting cross streets receive ***Frontage*** = N, as shown in *Figure 6-32* below:

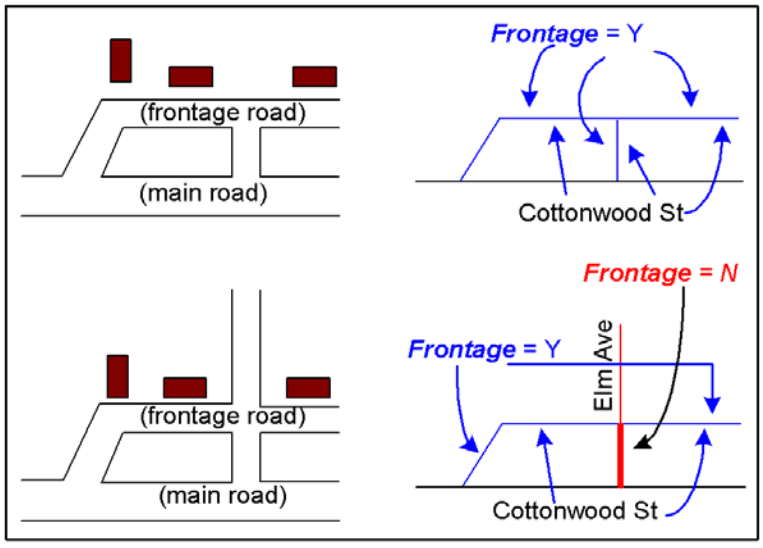


Figure 6-32

- For non-navigable links, ***Frontage*** is published as N.

6.2.161 Full Geometry

Definition Full Geometry identifies that a link has the complete geometry of the road network surrounding it.

Value Y - Full Geometry

N - Not Full Geometry

Length 1

Type Boolean

Usage

- Full Geometry allows more precise route calculation and route guidance. It also allows more accurate timing of guidance
- In *Figure 6-33* below, if the driver was driving east on Link 1 and was given the guidance to turn left, the driver might mistakenly turn left at Link 3 instead of Link 2 (the destination). With ***Full Geometry*** taken into account, the driver should receive the guidance to turn left at the third intersection (Link 2).
- For the diagram on the left, simply saying “Next Left Turn” would make no sense to the driver. Not all the roads that exist in reality are displayed here. Therefore, it would make more sense to say “Turn Left in 1.5 miles”.

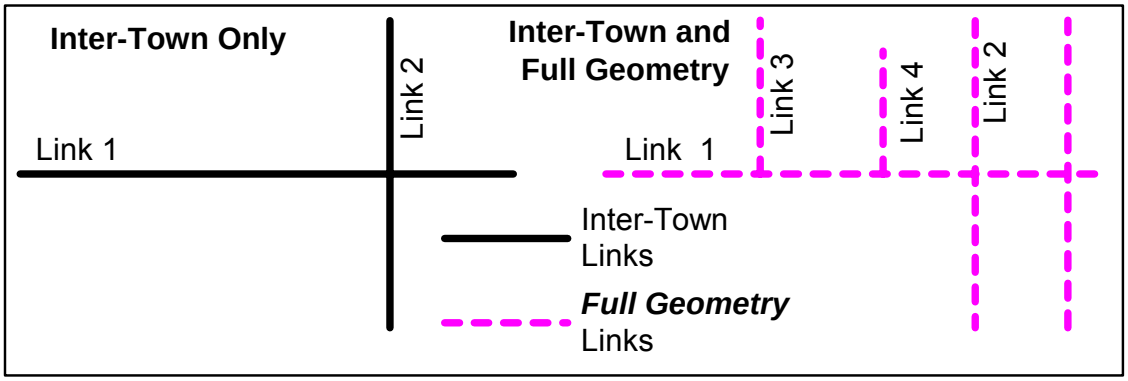


Figure 6-33

- Without taking ***Full Geometry*** into account the guidance to the driver may not represent reality.

Specification

- The following receive ***Full Geometry*** = Y
  - Links with ***Detailed City*** = Y

- Links with ***In Process Data*** = Y and ***Detailed City*** = N.
- Links with ***In Process Data*** = N and ***Detailed City*** = N belonging to administrative area which includes links that are ***In Process Data*** = Y.

- For non-navigable links, ***Full Geometry*** is published as N.

6.2.162 Functional Class

Definition Functional Class defines a hierarchical network used to determine a logical and efficient route for a traveller.

Value *(space)* - Not Applicable

1 - Level 1

2 - Level 2

3 - Level 3

4 - Level 4

5 - Level 5

Length 1

Type Text

Usage ***Functional Class*** can be used to determine sets of links that form connected graphs.

Specification

- The arterial network is connected. Each link has at least one connection in the network to every other link with the same ***Functional Class*** via a link with the same or higher functionality.
- ***Functional Class*** = 1 roads allow for high volume, maximum speed traffic movement between and through major metropolitan areas.

  Functional Class = 1 is applied to roads with very few, if any, speed changes. Access to the road is usually controlled.
- ***Functional Class*** = 2 roads are used to channel traffic to ***Functional Class*** = 1 roads for travel between and through cities in the shortest amount of time.
- ***Functional Class*** = 2 is applied to roads with very few, if any speed changes that allow for high volume, high speed traffic movement.
- ***Functional Class*** = 3 is applied to roads which interconnect ***Functional Class*** = 2 roads and provide a high volume of traffic movement at a lower level of mobility than ***Functional Class*** = 2 roads.

- ***Functional Class*** = 4 is applied to roads which provide for a high volume of traffic movement at moderate speeds between neighbourhoods. These roads connect with higher functional class roads to collect and distribute traffic between neighbourhoods.

- ***Functional Class*** = 5 is applied to roads whose volume and traffic movement are below the level of any functional class. In addition, walkways, truck only roads, bus only roads, and emergency vehicle only roads receive ***Functional Class*** = 5.

- ***Functional Class*** = Not Applicable is applied to non-navigable links.

- As a general rule, ***Functional Class*** assignments have no direct correlation with other road attributes like speed, controlled access, route type, etc. While in general ***Functional Class*** = 1 roads are controlled access this is not always the case, and it is also not the case that all controlled access roads are ***Functional Class*** = 1

- The ***Functional Class*** network is a hierarchical classification of roads based on reality. Density and pattern of each ***Functional Class*** level is influenced by the physical road network that exists in reality. Physical road network density variations between countries and between regions within a country are reflected in the ***Functional Class*** network. For example, the density of the road network differs between North American and European countries. Even within the U.S., for instance, density will vary from the East Coast to the West Coast.

- ***Functional Class*** = 1, 2, 3, and 4 roads are connected to form a comprehensive road network for navigation of long distance, mid-range and short routes in any given coverage area.

  For example, long distance routes are often calculated by searching the road network through progressively higher ***Functional Classes*** to get to a Level 1 road. The route continues exclusively on Level 1 roads until travel is required through progressively lower ***Functional Classes*** in order to reach the destination.

- The lowest ***Functional Class*** necessary to produce inter-connectivity is applied to ramps, turn lanes, and intersection internal links.

- When two or more different ***Functional Class*** roads connect, the lower functional class is applied to the connecting roads, see *Figure 6-34* and *Figure 6-35* for connectivity

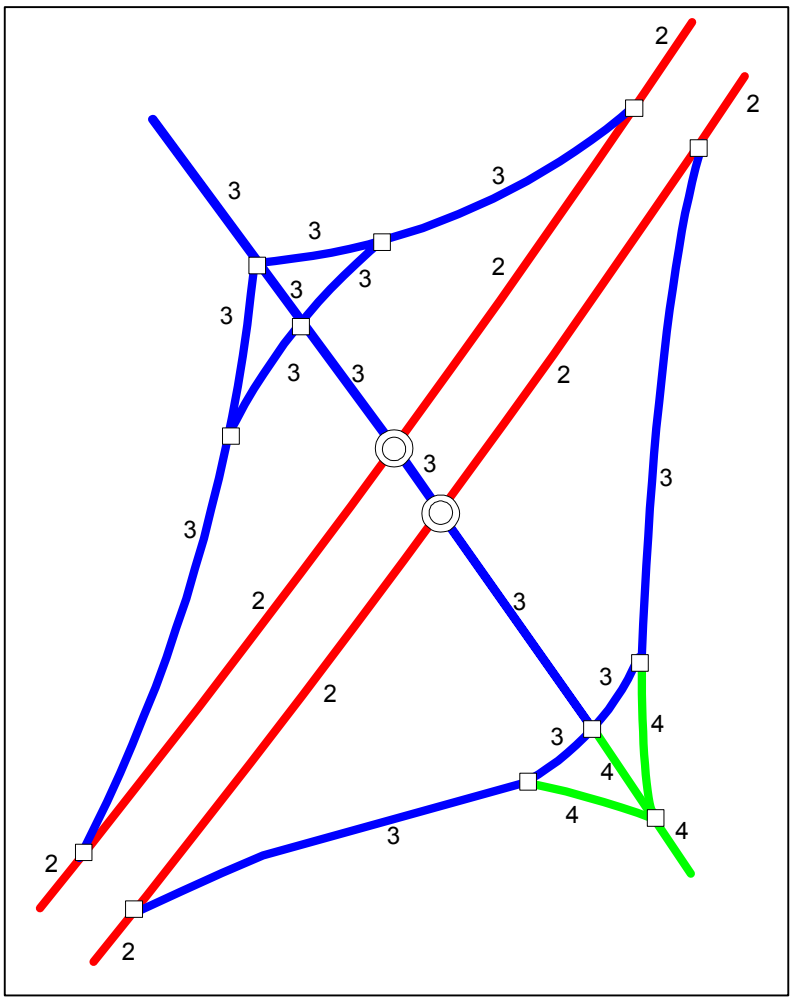


Figure 6-34

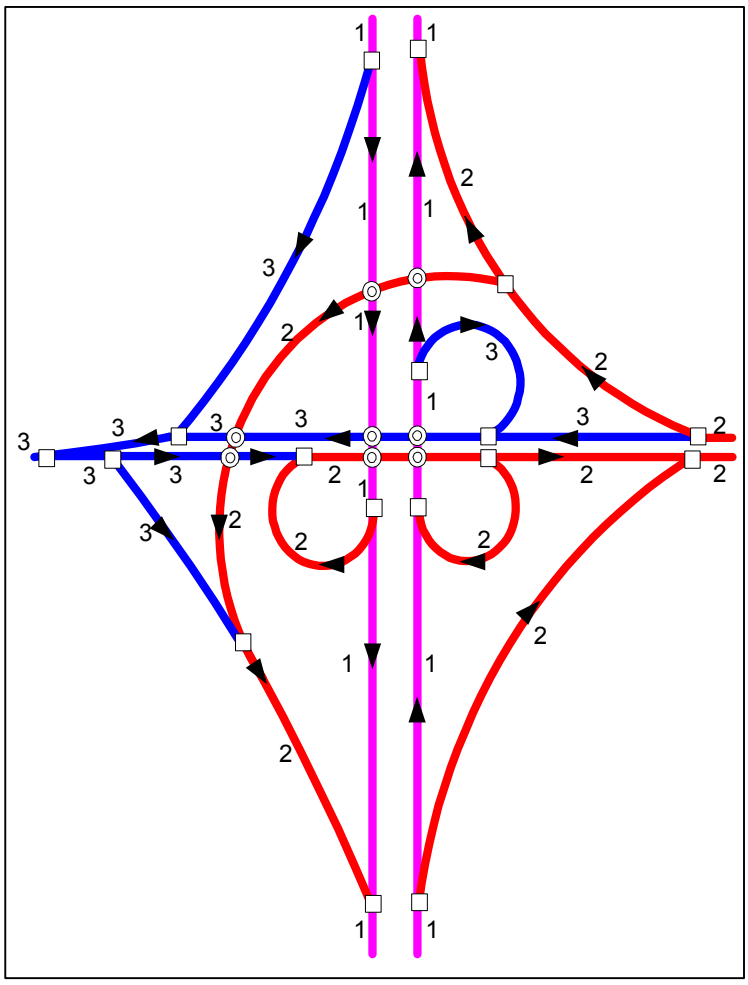


Figure 6-35

- If a road's ***Functional Class*** is equal on both sides of an intersection, then the links internal to the intersection receive the same value as illustrated in *Figure 6-36*.

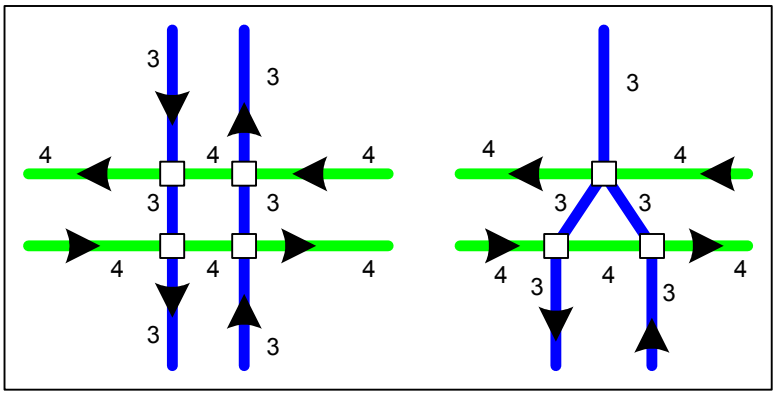


Figure 6-36

- Roundabout links receive the most important ***Functional Class*** of the roads connected to the Roundabout, as shown in *Figure 6-37.*

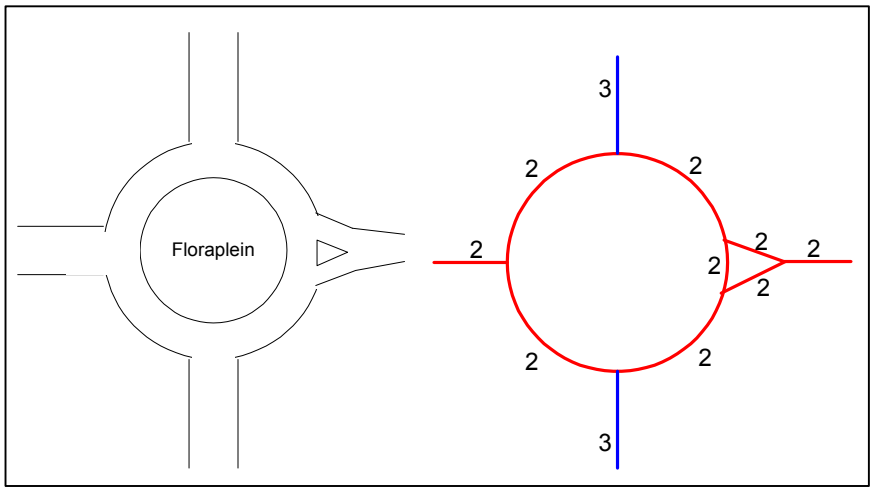


Figure 6-37

- A U-turn lane receives ***Functional Class*** = 5 unless it is considered part of an intersection. A U-turn lane is considered part of an intersection when the presence of turn restrictions at the intersection forces the use of the U-turn link, as shown in *Figure 6-38.*

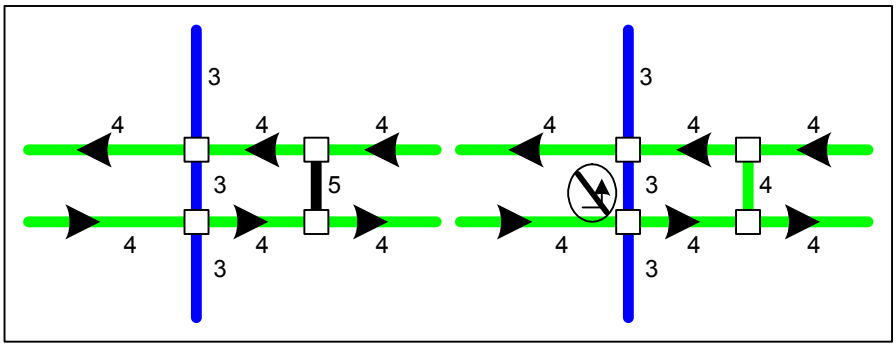


Figure 6-38

6.2.163 Government Code

Definition Identifies the government code of the administrative area.

Value nnnnnnnnnn

Length 10

Type Numeric

Usage It can be used to identify an administrative area based on its official code.

Specification

- Government Codes are included for all administrative levels.
- Official codes are used for ***Government Codes*** (***Gov Codes***), if available.
- If official codes are not available, ***Gov Codes*** are generated by NAVTEQ.
- Some areas (***AA Level 3*** and ***AA Level 4***) in Germany do not have an official code assigned, therefore ***Gov Code*** of 0 is published. For example, Hamburg (***AA Level 3***) will have a ***Gov Code*** of 0 published.
- Administrative features at the same level and part of the same higher administrative level are guaranteed to have a unique ***Gov Code***. That is, if administrative feature “A” and administrative feature “B” are both part of the same higher administrative feature “C”, They will not have the same ***Gov Code***. One might have the same ***Gov Code*** as administrative feature “D” which is part of administrative feature E (same level as “C”). See *Figure 6-39*.

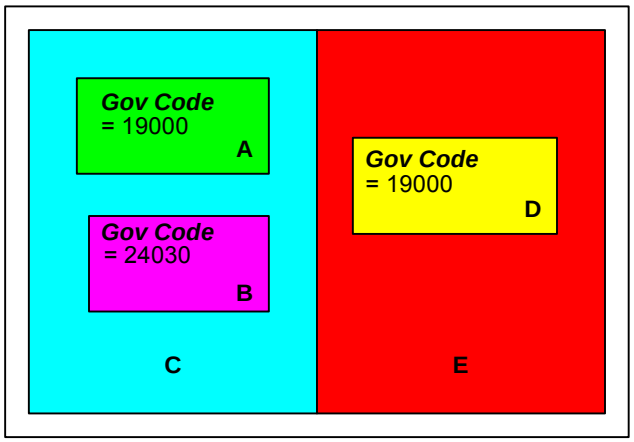


Figure 6-39

- In the case of a city in multiple counties (U.S.) or a built-up area in multiple municipalities (Europe/Canada) the ***Gov Code*** remains the same. See *Figure 6-40*. For example in the case of Portland, the ***Gov Code*** can be used to determine that all three components of Portland belong together and should be treated as one city. Even though there is in fact only one City, the higher administrative levels still need to be retained in case they are needed for address resolution.

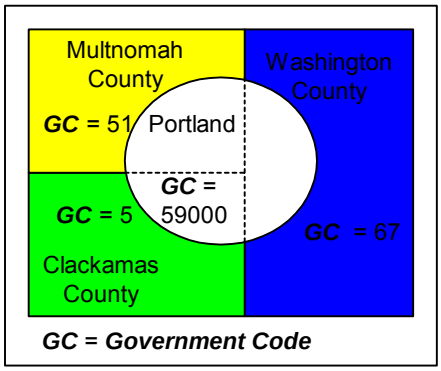


Figure 6-40

In the U.S., Official Codes are based the Federal Information Processing Standards (FIPS) codes.

6.2.164 GIS File Version

Definition The GIS file format version as X.Y.Z.

Value X - Major Revision Number (0-9)

Y - Minor Revision Number (0-9)

Z - Point Version Number (0-9)

Length 10

Type Numeric

6.2.165 GIS Software Version

Definition NAVTEQ's GIS Extraction Software version

6.2.166 Hamlet Name

The Hamlet Name is equivalent to the ***POI Name***.

6.2.167 Hamlet Name Language Code

The Hamlet Name Language Code is equivalent to the ***Language Code***.

6.2.168 Hamlet Name Type

The Hamlet Name Type is equivalent to the ***POI Name Type***.

6.2.169 Highway Name

The Highway Name is a combination of ***Feature Name***, ***Street Type***, ***Name Prefix*** and ***Name Suffix***.

6.2.170 Highway Name Language Code

The Highway Name Language Code is equivalent to the ***Language Code***.

6.2.171 Highway Type

Definition Indicates if segment is a Federal, Interstate or state or Provincial (Canada) highway. This field is used for display purpose only.

Value I1 - Interstate Highway

S1 - Federal Highway

S2 - State Highway

C1 - Primary Highway

C2 - Secondary Highway

C3 - Regional Road

Length 1

Type Text

6.2.172 Hospital Name

The Hospital Name Type is equivalent to the ***POI Name***.

6.2.173 Hospital Name Language Code

The Hospital Name Language Code is equivalent to the ***Language Code***.

6.2.174 Hospital Name Type

The Hospital Name Type is equivalent to the ***POI Name Type***.

6.2.175 House Number Format

Definition Identifies if the house number (address) precedes or follows the street name.

Value A – House number is after the street name.

B – House number is before the street name.

Length 1

Type Text

Usage Countries have varied conventions for the representation of addresses. In some countries the house number is written after the street name, in others it is before: for example, “VIA NAPOLEONE, 6” in Italy (house number after the street name) and “555 E Weddell Dr” in the U.S. (house number before the street name). This attribute specifies which convention is used for a specific country.

Specification

- In bilingual countries, the ***House Number Format*** may not be the same for each language in reality. However, due to the DNDC data model only the ***House Number Format*** for one of the languages can be specified.

6.2.176 In Process Data

Definition ***In Process Data*** identifies that a link is included prior to completion to full specification.

Value Y - In Process Data

N - Not In Process Data

Length 1

Type Boolean

Usage The ***In Process Data*** attribute on links indicates that the links do not have full routing attributes. ***Direction of Travel***, ***Speed Category***, etc. may not represent reality.

Specification

- The minimum specification for these links are:
  - Complete administrative coding to the ***Maximum Administrative Level***.
  - Complete local and route number names.
- Links with ***In Process Data*** = Y receive ***Full Geometry*** = Y.
- For non-navigable links, ***In Process Data*** is published as N.

6.2.177 In Vicinity

Definition Identifies whether a POI is located directly on the road with which it is associated.

Value Y - In Vicinity

N - Not In Vicinity

Length 1

Type Boolean

Usage The attribute tells a system what kind of route guidance information should be provided to users. If the POI is not ***In Vicinity*** the system can state 'you have arrived'. If the POI is ***In Vicinity***, the system can tell the user the POI is nearby but that further routing advice is not available.

Specification

- When the POI is attached to a road other than the road where the POI is physically located, it is identified as ***In Vicinity***. This situation occurs when, due to the Inter-Town inclusion rules, the road where the POI is actually located is not contained in the database. In these situations, the POI may not carry a ***POI Street Number***.
- Only Auto and Motorcycle Dealerships POIs in Europe may be identified as ***In Vicinity***. The following naming conventions will be applied to these Auto Dealerships and Motorcycle Dealerships:

- POI Name: **<official name>, <street name> <address>** (or **<address> <street name>**)
- In case the Auto Dealership POI sells multiple brands, the following naming rule is applied: **<official name>** (**<additional brand name>**), **<street name> <address>** (or **<address> <street name>**)
- For example: Autohaus Wagner, Berliner Strasse 2
- A space between the comma and the street name and between the street name and the address is added. If no official name exists, the chain name is applied instead, followed by the street name.

6.2.178 Indescribable

The Indescribable information can be found under ***Intersection Coding***.

6.2.179 Intersection

Definition Indicates whether this node connects to an intersection.

Value Y - The node connects to an intersection.

N - The node does not connect to an intersection.

Length 1

Type Boolean

6.2.180 Intersection Coding

Definition Identifies links that are part of or associated with road intersections. These include links created when multiply digitised roads are intersected or when the centrelines of intersecting roads do not meet at a single node. Turn lanes, traffic islands, u-turn lanes, and ramps are also included in the intersection definition.

Value Y - Intersection Internal, Manoeuvre, or Indescribable

N - Not Intersection Internal, Manoeuvre, or Indescribable

Length 1

Type Boolean

Usage Intersection coding can be used for explication and display. The flags indicate whether a driver will perceive a situation as one or multiple intersections. These flags imply that the situation may require different explication that what is implied by the geometry.

Intersection Internal(***II***) indicates that a road segment should be viewed as part of the intersection, instead of as an individual piece of road. A separate guidance instruction should not exist for this segment. For example, if making a U-turn in *Example A* in *Figure 6-41* the Intersection Internal link should be ignored, and the driver should be told to make U-turn, not "turn left, turn left."

Manoeuvre(***M***) indicates that only one command should be given despite the fact that technically two turns occur – one at each end of the turn lane. It is only necessary to state "turn right" near the beginning of the manoeuvre because at the end the driver does not have a choice in direction. See *Example B* in *Figure 6-41*.

Indescribable(***I***) indicates a turn that cannot be explained in one command or at all. A graphic may be needed to illustrate the turn. In these situations a driver may need to go right to make a left turn. See *Example C* in *Figure 6-41*.

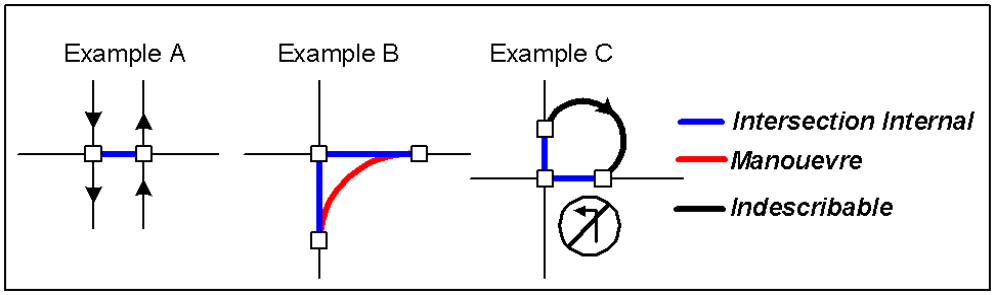


Figure 6-41

Specification

- All measurements given in the following diagrams are guidelines.
- For non-navigable links, ***Intersection Internal***, ***Manoeuvre***, and ***Indescribable*** are published as N.
  Intersection Internal

Intersection Internal

- ***Intersection Internal*** is applied to links that meet any of the following criteria:
- Crossing of multiply digitised roads. A by-product of multiple digitisation is that one intersection is represented by 4 links. Similarly, the crossing link of a ***Multiply Digitised*** = N road and a ***Multiply Digitised*** = Y road is one intersection, as shown in the illustrations in *Figure 6-42* and *Figure 6-43*.

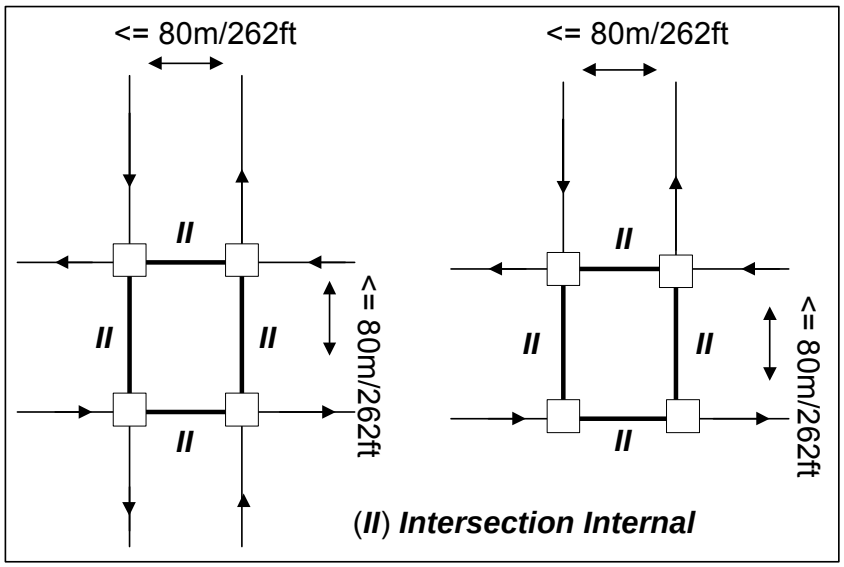


Figure 6-42

- When a ***Multiply Digitised*** = N road splits into a ***Multiply Digitised*** = Y road before an intersection, the links which are the beginning of the ***Multiply Digitised*** = Y road require ***Intersection Internal*** coding if the distance before the intersection is less than 40 metres/131 feet, as shown in *Figure 6-43.*

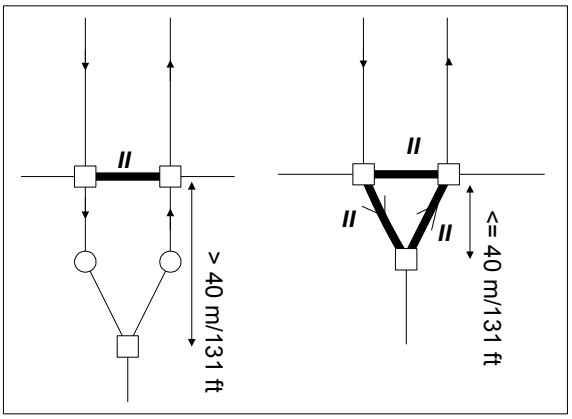


Figure 6-43

- Offset Streets with Overlapping Casements: The outer edge of a roadbed is called a road casement. When road casements overlap, the link that is created by offset centrelines is coded as ***Intersection Internal***, as shown in *Figure 6-44*. The road names before and after an intersection are not taken into account when determining intersection coding. ***Intersection Internal*** implies that the segment can be ignored for explication. In

Figure 6-44, the driver would not want to hear - "turn left" followed by "turn right".

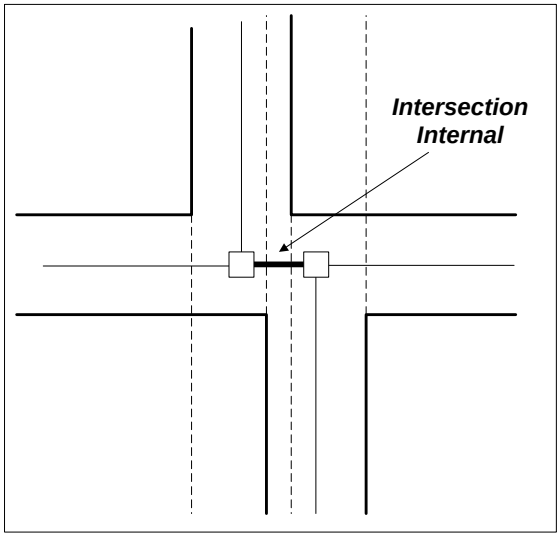


Figure 6-44

- The link is navigable and is internal to a ***Special Traffic Figure***, as shown in *Figure 6-45*.

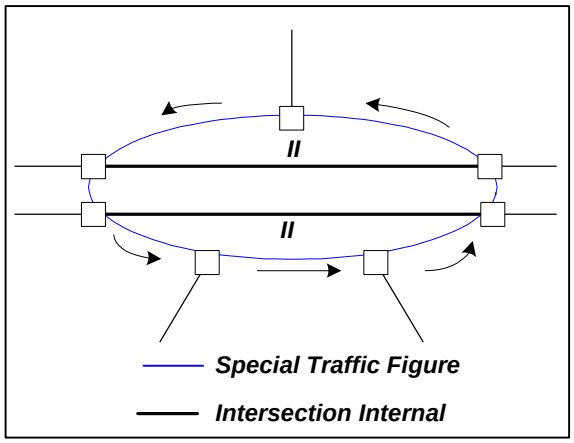


Figure 6-45

- See additional cases of ***Intersection Internal*** applied in relation to the application of ***Manoeuvre*** and ***Indescribable***.

Manoeuvre

- ***Manoeuvre*** is applied to a link or group of links that suggest a single manoeuvre be explicated, rather than multiple manoeuvres. For example, at an intersection with a turn lane (turn lane receives ***Manoeuvre***), good

explication would tell the driver to take a right slightly before the manoeuvre. Poor explication would tell the driver to turn right at both the beginning and end of the manoeuvre. Only one command is needed because at the end of the manoeuvre the driver does not have a choice in direction.

- If the road is coded with ***Multiply Digitised*** = Y, the U-turn lanes are coded as ***Manoeuvre***, as shown in *Figure 6-46*.

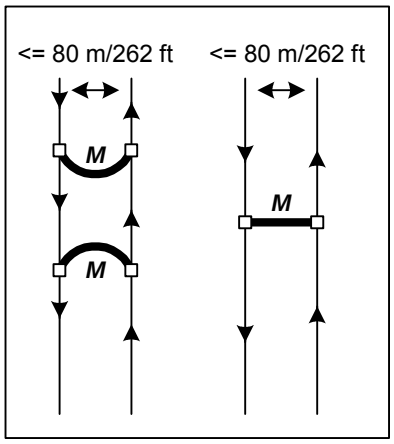


Figure 6-46

- An internal turn lane that is less than 120 metres/394 feet is a ***Manoeuvre.*** The distance is determined by measuring from the beginning of the turn lane to the end of the turn lane. The remaining triangle links are coded as ***Internal Intersection,*** as shown in *Figure 6-47*.

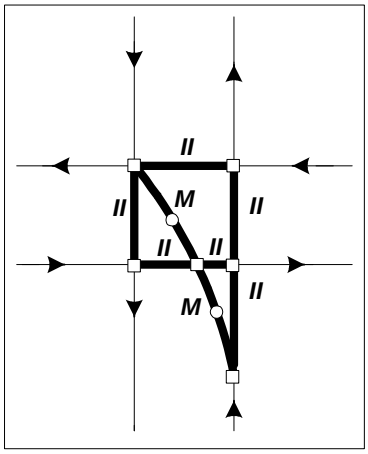


Figure 6-47

- An external turn lane that is less than 120 metres/394 feet is a manoeuvre link. This distance is determined by measuring from the beginning of the turn lane to the end of the turn lane. The remaining triangle links receive ***Intersection***

Internal when both links are less than or equal to 40 metres/131 feet, as shown in Case 1 of *Figure 6-48.* If one of the remaining triangle segments is longer than 40 metres/131 feet, then neither of the remaining links are ***Intersection Internals*** as in Case 2.

- The bearing of the turn lane does not change the application of the ***Manoeuvre*** attribute.

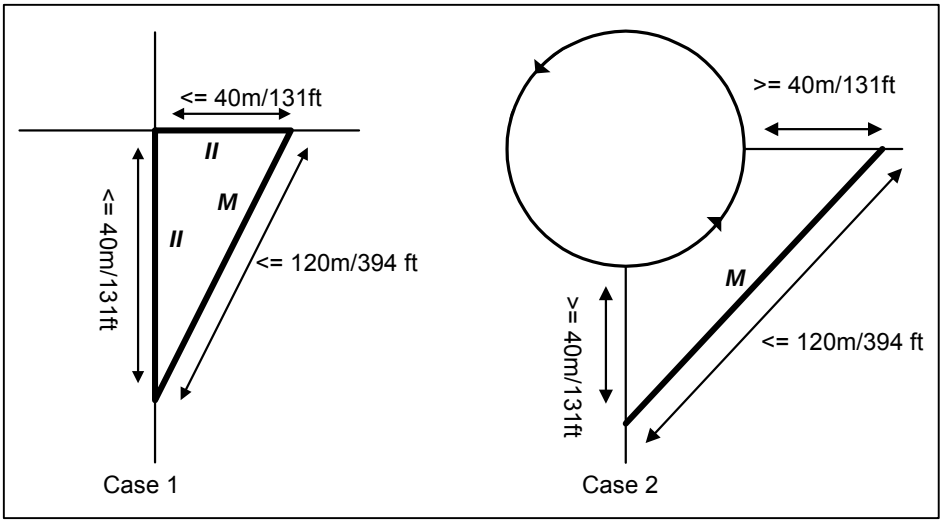


Figure 6-48

- Situations where intervening roads connect to an intersection may not be perceived as one intersection, so only the turn lane is coded ***Manoeuvre*** as shown in *Figure 6-49.*

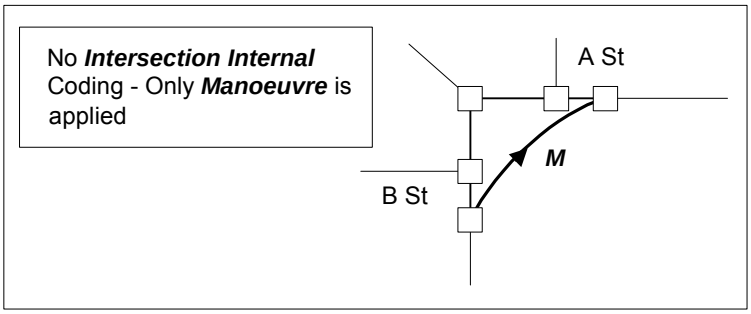


Figure 6-49

- External turn lanes are coded ***Manoeuvre*** even if several manoeuvres can be made such as to roads A and B in *Figure 6-50*.

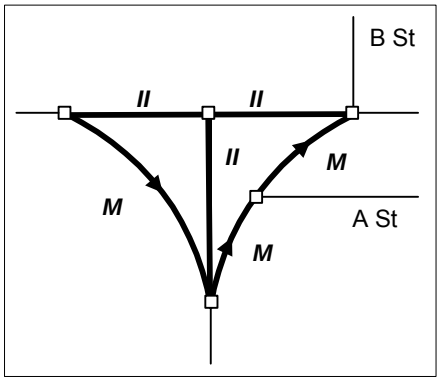


Figure 6-50

- When a ramp or turn lane forks into two separate links near the beginning or end of the ramp or turn lane connection, this is called a splitter. A splitter link receives intersection ***Manoeuvre*** coding if it is less than 120 metres/394 feet and not connected to a motorway (controlled access road). When both splitter links receive ***Manoeuvre***, the link of the main road that connects the two splitter segments receives ***Intersection Internal***.

- Ramp splitters that are connected to a ***Controlled Access*** = Y road (diagram on the right) are not treated as one intersection as shown in *Figure 6-51* and therefore do not receive intersection coding. As opposed to when ramp splitters are connected to ***Controlled Access*** = N (diagram on the left) that does receive intersection coding.

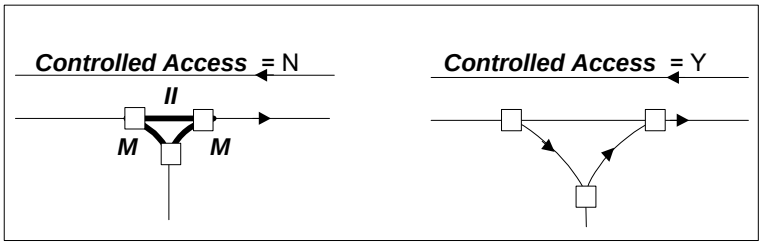


Figure 6-51

- When three or more singly digitised roads meet at a traffic island and each side of the connection is less than 40 metres/131 feet, then the link which is perceived or which functions as a turn lane is coded as a ***Manoeuvre*** and the remaining links comprising the intersection are ***Intersection Internal***, as shown in *Figure 6-52* and *Figure 6-53*. This rule is used if there is a crossing of singly digitised roads due to extended centrelines, even though there is no actual physical traffic island.

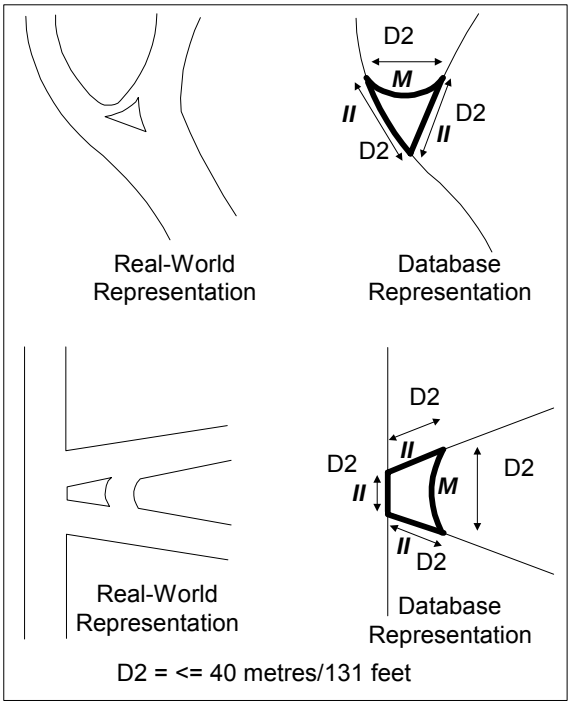


Figure 6-52

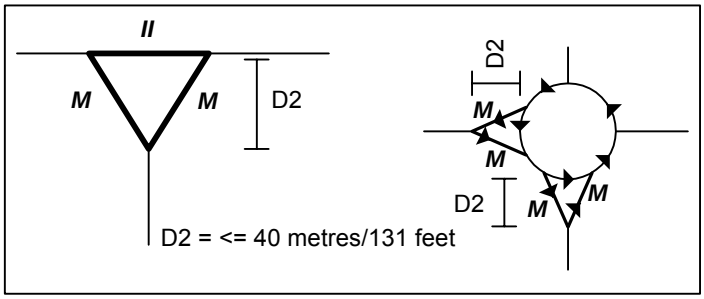


Figure 6-53

- A turn lane which connects two frontage roads over/under a motorway receives *Manoeuvre.* See *Figure 6-54.*

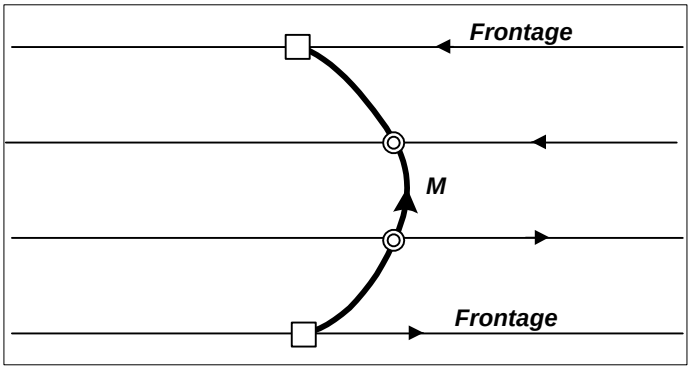


Figure 6-54

Indescribable

- ***Indescribable*** is applied to a link that meets any of the following criteria:
  - The link comprises a right-exiting external turn lane for turning left or for U-Turns. These segments are ***Indescribable***.
  - Once the ***Indescribable*** is coded, if the remaining triangle's sides are both shorter than 40 metres/131 feet, then the remaining triangle links are ***Intersection Internal***, as shown in *Figure 6-55.*

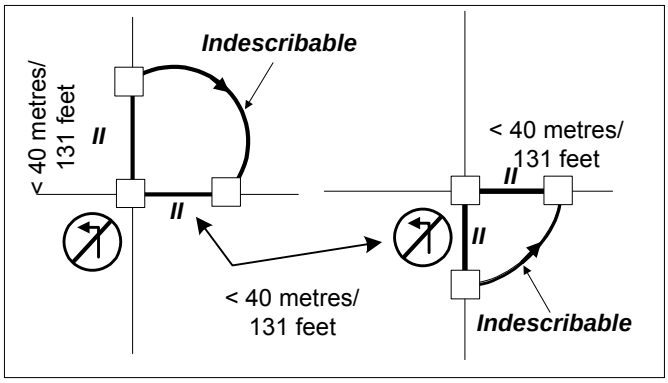


Figure 6-55

  - A link comprises a U-turn lane on a ***Multiply Digitised*** = Y road required for left turns, as shown in *Figure 6-56.*

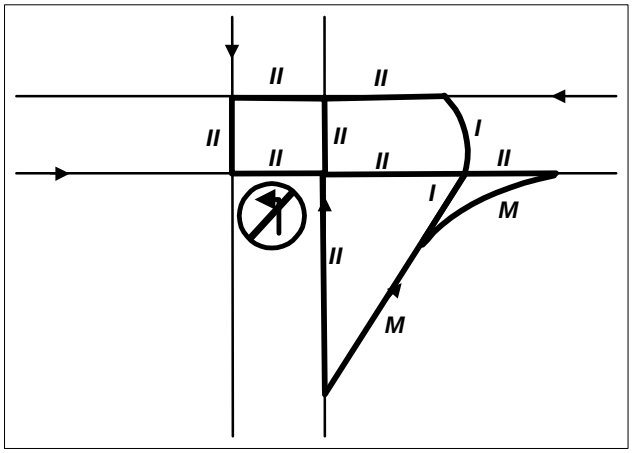


Figure 6-56

- Any intersection requiring a graphic of the intersection to aid the driver to properly traverse through the intersection. See *Figure 6-57.*

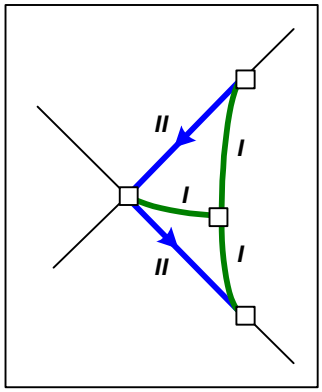


Figure 6-57

6.2.181 Intersection Internal

The Intersection Internal information can be found under ***Intersection Coding***.

6.2.182 Island Description

The Island Description information can be found under ***Feature Type***.

6.2.183 Island ID

The Island ID is equivalent to the ***Polygon ID***.

6.2.184 Island Name

The Island Name is equivalent to the ***Feature Name***.

6.2.185 Island Name Language Code

The Island Name Language Code is equivalent to the ***Language Code***.

6.2.186 Junction Name

Definition ***Junction Name*** identifies a ramp system that comprises a named Junction between two or more motorways or a named motorway exit/entrance.

Value Y - Junction Name

N - Not a Junction Name

Length 1

Type Boolean

Usage ***Junction Name*** allows for explication of an exit or entry ramp that comprises a named junction without having to use the sign text.

Specification

- ***Junction Name*** = Y is applied to the entire ramp system comprising a named junction.
- ***Junction Names*** are primarily found in the European databases. However, ***Junction Names*** can be found in the U.S. states of New Jersey and Pennsylvania.

6.2.187 Junction View

Definition ***Junction View*** represents complex intersections where additional guidance is necessary. Each condition is associated with two graphic images that provide a one-directional view of the upcoming interchange with the appropriate manoeuvre indicated by an arrow.

Condition Type 20

Length 5

Usage A ***Junction View*** condition ties an image representation of a junction and arrow overlays to the corresponding road geometry. This can enable an application to display the junction view graphic for a junction with the appropriate

arrow overlay prior to the desired manoeuvre. See *Figure 6-58* for examples.

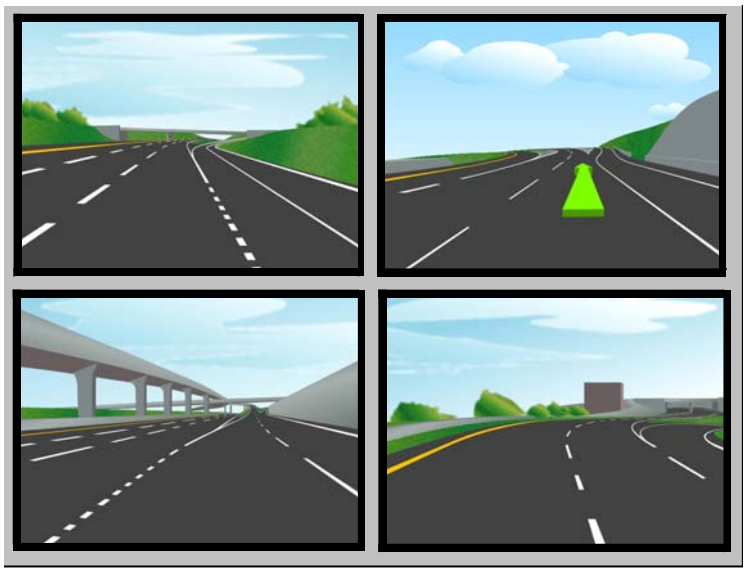


Figure 6-58

Rules

- The location chosen is the node where the manoeuvre shown in the image occurs.
- Views from different distances prior to the junction viewpoint may be included in case of lengthy junctions (i.e., distance between decision points is > 250 meters).
- Each junction view covers one decision point in the junction, with the appropriate arrow overlays (see *Figure 6-59*).

  Note: In cases where the distance between two decision points is < 250 meters there may still be a need for two ***Junction View*** conditions if the second decision point is not clearly visible from the first decision point.

  Note: The decision point is the location where the driver must receive the information in order to make the manoeuvre.

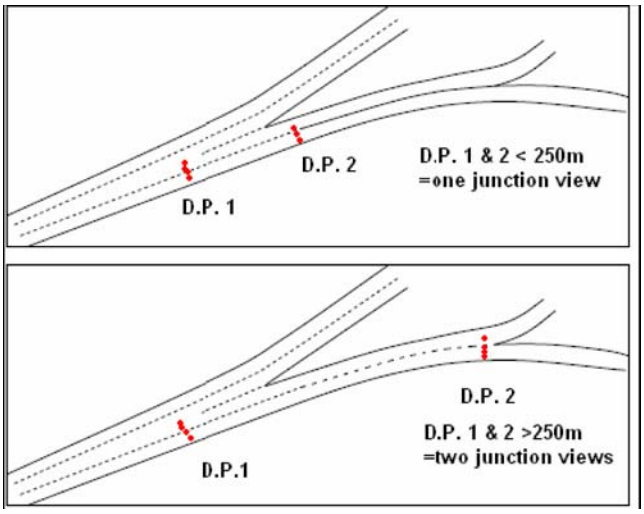


Figure 6-59

- Along motorways, a ***Junction View*** condition may be coded at any exit that has ***Extended Lane*** coding referencing a corresponding image showing the motorway and exiting ramp. Appropriate arrow overlay images are included for the exiting manoeuvres only.

  No Junction View conditions for background and arrow overlay images are included for the “straight-on” direction, i.e., when a driver continues on the motorway.

- In case of a bifurcation or a parallel ramp split along motorways, ***Junction View*** conditions are coded for each possible driving direction.

- ***Junction View*** conditions can involve multiple links (i.e., > 2 links). The links participating in a multi-link condition need to be consecutive.

6.2.188 Land Use Description

The Land Use Description information can be found under ***Feature Type***.

6.2.189 Land Use ID

The Land Use ID is equivalent to the ***Polygon ID***.

6.2.190 Land Use Language Code

The Land Use Language Code is equivalent to the ***Language Code***.

6.2.191 Land Use Name

The Land Use Name is equivalent to the ***Feature Name***.

6.2.192 Lane Category

Definition Lane Category classifies a road based on the number of lanes in each direction.

Value *(space)* - Not Applicable

1 - One Lane

2 - Two or Three Lanes

3 - Four or More Lanes

Length 1

Type Text

Usage ***Lane Category*** can be used for cartographic representation of road widths on printed maps, as well as traffic management and display applications. ***Lane Category*** may also be used for route guidance timing.

Specification

- ***Lane Category*** is applied to every navigable link.
- ***Lane Category*** is applied describing the overall trend of the road. Short stretches where the ***Lane Category*** differs from the overall trend are disregarded if determined to be insignificant.
- Carpool lanes that are not separately digitised are included in the lane count.
- ***Lane Category*** = Not Applicable is applied to non-navigable links**.**
- If the number of lanes is different for each direction of travel on the link, the higher of the two numbers is applied.
- Turn lanes are not included.
- The number of lanes in the ***Lane Category*** implies the number of lanes per direction, not the total number of lanes of the link. Therefore, this must be looked at in conjunction with the ***Direction of Travel*** attribute.
- Navigable links without lanes (i.e. Walkways) receive ***Lane Category*** = 1.

6.2.193 Lane Traversal

Definition ***Lane Traversal*** indicates how lanes are connected between origin and destination links.

Condition Type 13

Length 5

Related Attribute Number of Lane Traversals

Specification

- ***Lane Traversal*** applies to two or more contiguous links that uniquely identify the connection of lanes.
- NAVTEQ currently publishes ***Lane Traversal*** in both directions, even when the split point applies only to one side of the road. See *Figure 6-60*.

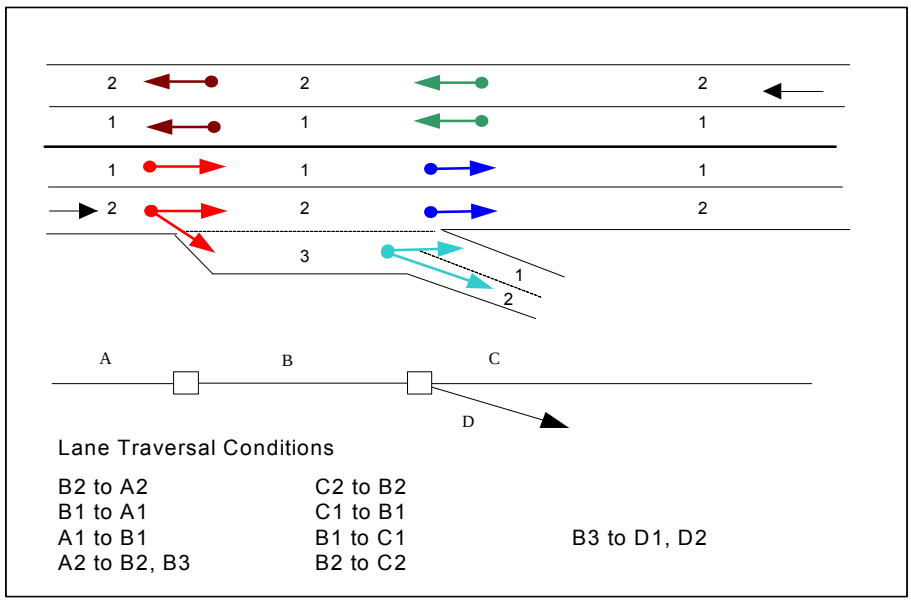


Figure 6-60

- If the number of lanes increases related to an upcoming split point, a ***Lane Traversal*** condition is included to tell which lane is used to connect to the new lanes. See *Figure 6-61* for an example.

  Note: All arrows of the same colour are grouped in the same condition. A new colour indicates a new ***Lane Traversal*** condition. The arrows show the ***Origin*** or ***Destination Lane Number*** attributes.

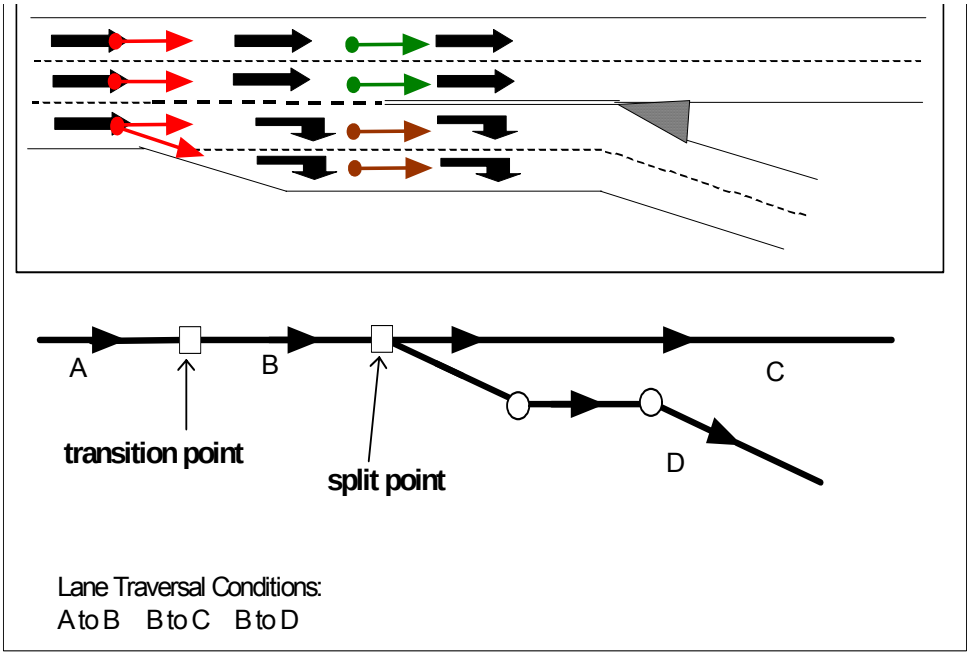


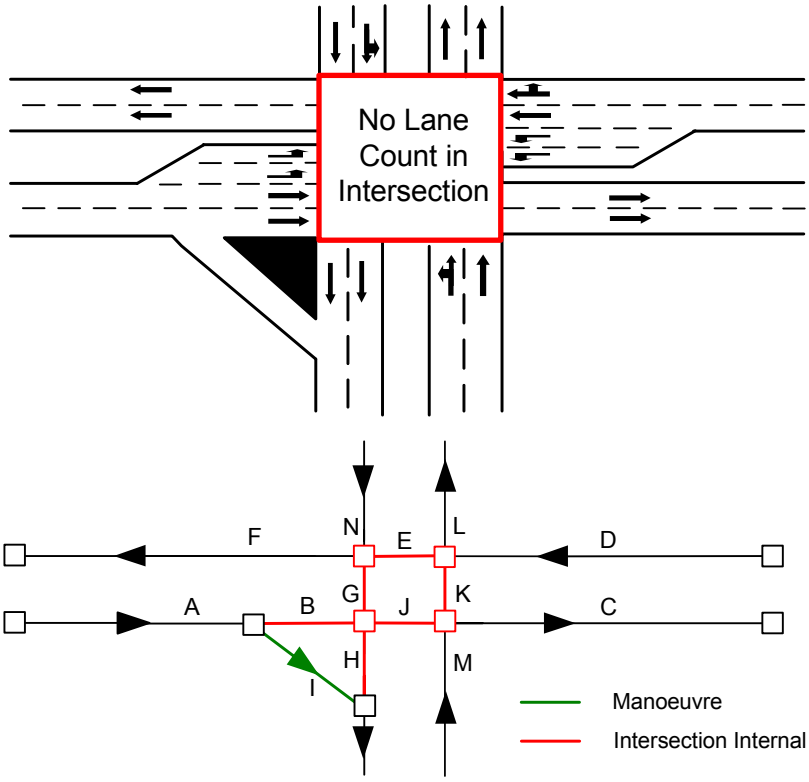
Figure 6-61

- If the manoeuvre between the links is restricted to certain time periods and vehicles, the ***Lane Traversal*** conditions contain that information. For a given origin and destination set of links, if the Access Characteristics or Date Time Modifiers are not consistent for all lanes, multiple ***Lane Traversal*** conditions group the lanes with the same Access Characteristics and Date Time Modifier information.
- When a lane or group of lanes is allowed only for a specific vehicle type, the Access Characteristics are indicated within the condition record. Access Characteristics, which are not allowed on the link itself, are not specified.
- NAVTEQ does not publish a ***Lane Traversal*** condition between two links for the same time periods and vehicles as a ***Restricted Driving Manoeuvre*** condition.

Multiple links

- In general, ***Lane Traversal*** conditions are only applied between two connected links. However, a ***Lane Traversal*** condition can pass through multiple links if they are considered part of the same intersection and there is no intermediate lane information. The origin link and the destination link of a ***Lane Traversal*** condition have a lane count in reality. See *Figure 6-62*.

  Note: The internal participating links are coded ***Internal Intersection***. However, this does not imply that any link coded with ***Internal Intersection*** cannot be an origin or destination link of a ***Lane Traversal*** Condition. In *Figure 6-62*, Links B, H, and I all have a lane count in reality and, therefore, are coded as an origin or destination link.



Lane Traversal Conditons involving more than two links

B to J to C	D to E to F	M to K to L	N to G to H
B to J to K to L	D to E to G to H	M to K to E to F	N to G to J to C

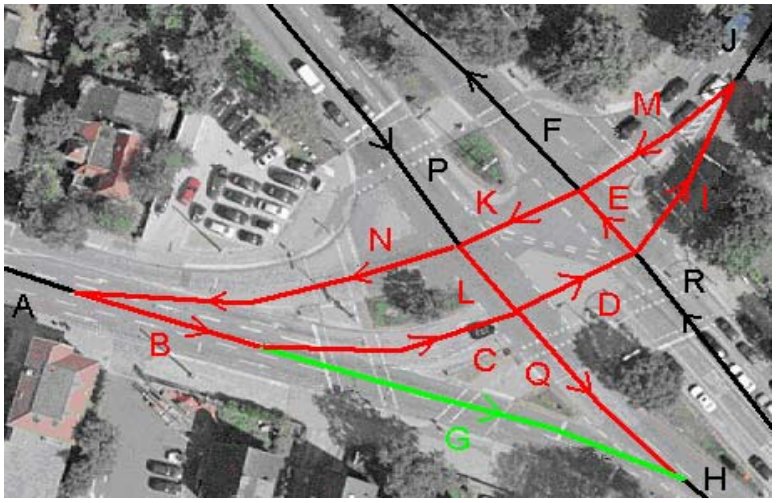
Figure 6-62

- Only links that do not have a lane count in reality can be part of a three or more link ***Lane Traversal*** condition. In *Figure 6-63*, *Links D*, *E*, *K*, *L* are the only links without a lane count.

- ***Lane Traversal*** conditions are applied for all connections within one intersection. See *Figure 6-63*. The ***Lane Traversal*** conditions start where there is a different lane count on two contiguous links.

- On a bi-directional link, a ***Lane Traversal*** condition is always added in both directions, e.g., if a ***Lane Traversal*** condition is required from *Link I* to *J*, a ***Lane Traversal*** condition from *Link J* to *M* is also added. This is also true for conditions on *Link A* to *B* and *Link N* to *A*.

- Gaps in ***Lane Traversal*** conditions within one intersection do not exist. E.g., if in *Figure 6-63*, a ***Lane Traversal*** condition is added from *Link A* to *B*, then *Link B* to *C* also get a ***Lane Traversal*** condition when there is no change in number of lanes between *Link B* and *C*.



Lane Traversal Conditions

A to B	B to C	C to D to I	R to I	I to J
	B to G	C to D to E to F	R to E to F	J to M
		P to N	R to E to K to N	Q to H
		P to L to Q	M to F	G to H
		P to L to D to I	M to K to N	
		N to A	M to K to L to Q	
			Q to H	
			G to H	

Figure 6-63

Between Transition and Split Points

- If one or more nodes exist between the transition point and the split point, an additional ***Lane Traversal*** condition is added across each node. These nodes may exist as an administrative boundary, emergency turn lane, etc. *See Figure 6-64.*

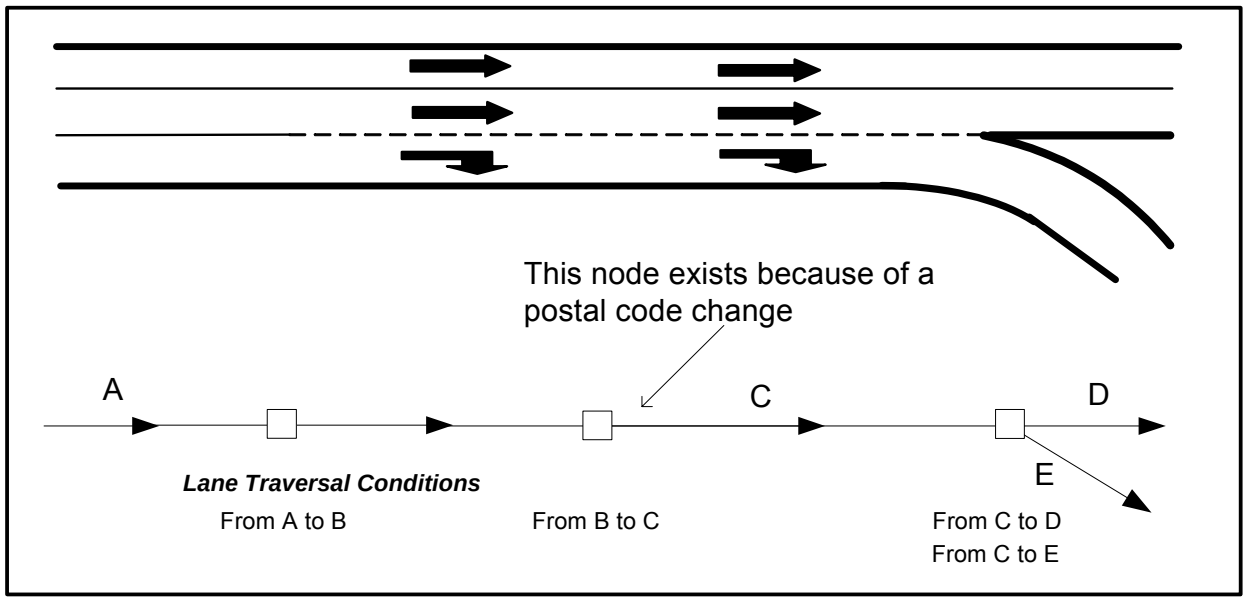


Figure 6-64

Lanes in a Roundabout

- When a ***Lane Traversal*** condition is required for part of a roundabout, Extended Lane coding is applied to all links of the roundabout. See *Figure 6-65*.

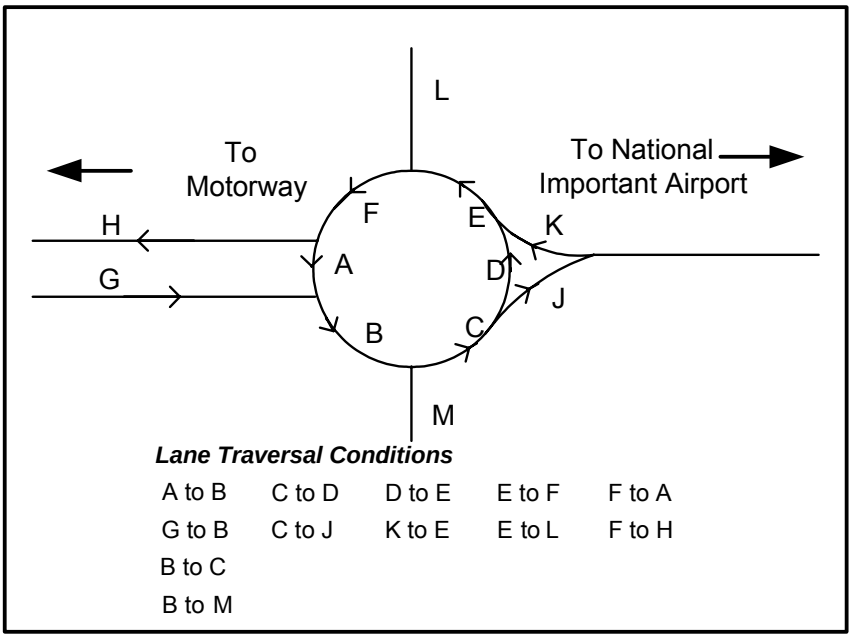


Figure 6-65

6.2.194 Language Code

Definition The language associated with the feature name.

Code	Description
ALB	Albanian
ARA	Arabic
BAQ	Basque
BEL	Belarusian
BEX	Belarusian Transliterated
BOS	Bosnian
BOX	Bosnian Transliterated
BUL	Bulgarian
BUT	Bulgarian Transcribed
BUX	Bulgarian Transliterated
CAT	Catalan

Code	Description
CHI	Chinese (Modern)
CHT	Chinese (Traditional)
SCR	Croatian
SRX	Croatian Transliterated
CZE	Czech
CZX	Czech Transliterated
DAN	Danish
DUT	Dutch
ENG	English
EST	Estonian
ESX	Estonian Transliterated
FIN	Finnish
FRE	French
GLG	Galician
GER	German
GRT	Modern Greek
GRE	Greek
GRT	Greek Transcribed
GRX	Greek Transliterated
HUN	Hungarian
HUX	Hungarian Transliterated
IND	Bahasa Indonesia
ITA	Italian
LAV	Latvian
LAX	Latvian Transliterated
LIT	Lithuanian
LIX	Lithuanian Transliterated
MAC	Macedonian
MAT	Macedonian Transcribed
MAY	Malaysian
MOL	Moldovan
MOX	Moldovan Transliterated
MNE	Montenegrin
MNX	Montenegrin Transliterated
NOR	Norwegian
POL	Polish
POX	Polish Transliterated

Code	Description
POR	Portuguese
PYN	Pinyin
RMX	Romanian Transliterated
RUM	Romanian
RUS	Russian
RST	Russian Transcribed
RUX	Russian Transliterated
SRB	Serbian
SCT	Serbian Transcribed
SCX	Serbian Transliterated
SLO	Slovak
SLX	Slovak Transliterated
SLV	Slovenian
SIX	Slovenian Transliterated
SPA	Spanish
SWE	Swedish
THA	Thai
TKT	Turkish Transcribed
TUR	Turkish
TUX	Turkish Transliterated
UKR	Ukrainian
UKX	Ukrainian Transliterated
WEL	Welsh

Length 3

Type Text

Usage The ***Language Code,*** in conjunction with ***Prefix***, ***Feature Name***, ***Street Type***, and ***Suffix***, can be used in destination selection, route guidance, and map display.

Specification

- Each name receives a language code. Regardless of the origin of a Feature Name, only authorised languages are valid in a country. For example, in the U.S. only language type ENG is authorised even for names like “El Camino Real” or “San Jose” which are of Spanish origin.

6.2.195 Left Address Format

Definition The format of the addresses on the left side of the link.

Note: The reference and non-reference addresses must have the same format.

Value

Code	Description	Format
(space)	UNADDRESSED	
A	ALPHANUMERIC-N	12N123
B	BLOCK	A123
C	ALPHANUMERIC-1	2M89
D	SLASH[1]	34/134
E	ALPHANUMERIC-E	12E123
F	ALPHANUMERIC-4	A12345A
H	HYPHENATED	123-123
I	ALPHANUMERIC-NW	N123W12312
J	ALPHANUMERIC-NE	N123E12312
K	ALPHANUMERIC-SW	S123W12312
L	ALPHANUMERIC-SE	S123E12312
N	NUMERIC	123456
O	ALPHANUMERIC-ES	E123S12312
P	ALPHANUMERIC-EN	E123N12312
Q	ALPHANUMERIC-WS	W123S12312
R	ALPHANUMERIC-WN	W123N12312
S	ALPHANUMERIC-S	12S123
V	NUMERIC-W	123W
W	ALPHANUMERIC-W	12W123
X	ALPHANUMERIC SLASH[2]	A8/5
Y	NUMERIC-E	123E
Z	LEADING ZERO	012345
1	ALPHAHYPHENATED-5	AB-12
3	ALPHANUMERIC 3	AH34

1. This format is commonly used in Thailand.
2. This format is commonly used in Indonesia.

Length 1

Type Text

Usage The ***Left Address Format*** is used in conjunction with related address attributes and the associated name for destination selection and geocoding.

Specification

- Address data is applied to both the right and left sides of a link. Right and left sides are relative to the reference node of the link.
- In North America, addresses are applied in Detailed City, Inter-Town, and In-Process Data areas where they exist in reality.
- In Europe, address inclusion varies by country in Detailed City areas.
  - Addresses may also be included in non-Detailed City areas. However, they are not required.
- Most addresses in the U.S. are comprised of the numeric characters 0-9. The formats *Table 6-9*contain other characters such as letters and hyphens. See *Table 6-8* for variations of the different Address Formats.
- Only numeric addresses are present except where noted for specific locations as listed in *Table 6-9*.

Summary of Address Format Variations

Address Format Codes	Format Variations	Incrementing Range
A (Alphanumeric-N) S (Alphanumeric-S) E (Alphanumeric-E) W (Alphanumeric-W)	nAnnn, nnAnnn, 0Annn, 00Annn (Where A can equal E, W, N, or S)	The numeric characters after the alpha can be used to calculate the address range 15W001 to 15W799, i.e. 1-799.
B (Block)	An, Ann, Annn (Where A can equal A-Z)	The numeric characters after the Alpha can be used to calculate the address range 1S001-1S599, i.e.1-599.
D (Slash)	n/n n/nn n/nnn nn/n nn/nn nn/nnn nnn/n nnn/nn nnn/nnn	The numeric characters after the slash can be used to calculate the address range.

Summary of Address Format Variations (Continued)

Address Format Codes	Format Variations	Incrementing Range
I (Alphanumeric-NW) J (Alphanumeric-NE) K (Alphanumeric-SW) L (Alphanumeric-SE) O (Alphanumeric-ES) P (Alphanumeric-EN) R (Alphanumeric-WN) Q (Alphanumeric-WS)	AnnnAnnn, AnnnAnnnn, AnnnAnnnnn (Where A can equal E, W, N, or S) Note: There can be 1-3 digits between the alphas and 3-5 digits after the 2nd alpha. There is a maximum of ten digits.	The numeric characters after the second alpha can be used to calculate the address range N121W20001 to N121W20199, i.e. 20001-20199.
X (Alphanumeric Slash)	An/n AA/nnn AAn/nn (Where A can equal A-Z)	The numeric characters after the slash can be used to calculate the address range.
Y (Numeric-E) V (Numeric-W)	nE, nnE, nnnE, nW, nnW, nnnW	The numeric characters before the alpha can be used to calculate the address range for 1E to 99E, i.e. 1-99
Z (Leading Zero)	00n, 0nn, 0nnn, 0nnnn	The numeric characters after the leading zeros can be used to calculate the address range. For example, the range 002 to 098 is 2-98.
H (Hyphenated)	0-0n, 0-nn, 0n-00, 0n-0n, 0n-nn, n-0n, n-0nnn, n-00, n-00nn, n-000n, n-n, n-nn, n-nnn, n-nnnn, nn-00, nn-00n, nn-000, nn-0n, nn-0nn, nn-0nnn, nn-n, nn-nn, nn-nnn, nnn-00, nnn-0n, nnn-n, nnn-nn, nnn-nnn,	The numeric characters after the hyphen can be used to calculate the address range 01-01 to 01-99, i.e. 1-99. Refer to individual areas for more details.

Summary of Address Format Variations (Continued)

Address Format Codes	Format Variations	Incrementing Range
C (Alphanumeric 1)	nAn, nAnn (Where A can be any alphabet)	The numeric characters after the alpha can be used to calculate the address range,e.g., range 1A1 to 1A9 would be 1-9.
F (Alphanumeric 4)	AnnnnnA (Where A can be any alphabet)	The numeric characters between the alphas can be used to calculate the address range, e.g., range A00001A to A00200A would be 1-200.
1 (Alphahyphenated 5)	AA-n, AA-nn, AAA-nn, AAA-nnn (Where A can be any alphabet)	The numeric characters after the hyphen can be used to calculate the address range because the alphas are constant for a given range, e.g., range AA-11 to AA-99 would be 11-99.
3 (Alphanumeric 3)	AAn, AAnn, AAnnn (Where A can be any alphabet)	The numeric characters after the alphas can be used to calculate the address range because the alphas are constant for a given range.

Table 6-8

Address Formats for Specific Areas

State	Location	Address Format Code	Address Format Variations	Incrementing Range (Area-specific)
Arizona	Baxter County	H	nn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	Carrol County	H	nnn-nn	If there are two numbers after the hyphen, the range increments at 99.
	Clark County	H	nnn-nn	If there are two numbers after the hyphen, the range increments at 99.
	Faukner County	H	nn-nn, nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	Little River County	H	nnn-nn	If there are two numbers after the hyphen, the range increments at 99.
	Logan County	H	nnn-nn	If there are two numbers after the hyphen, the range increments at 99.
	Saline County	H	nnn-nn	If there are two numbers after the hyphen, the range increments at 99.
California	Lassen County	H	nnn-nnn	The numeric characters after the hyphen can be used to calculate the address range
	Shasta County	H	nnn-nnn	The numeric characters after the hyphen can be used to calculate the address range

Address Formats for Specific Areas (Continued)

State	Location	Address Format Code	Address Format Variations	Incrementing Range (Area-specific)
Georgia	Whitfield County	H	nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
Hawaii	Oahu	H	nn-000, nn-0nn, nn-00n, nn-nnn, nn-0nnn, nn-nnnn	In Hawaii, the characters before the hyphen represent the tax zone and section, meaning they represent an area instead of a block sequence. In addition, the digits after the hyphen are sequential for the entire length of a given street name. This means the range of 1-99 is not repeated for every block of the given street name. For instance, the range is from 1 to 599 along the length of the given street.
Illinois	DuPage County	A,S,E,W	nAnn, nnAnnn (where A can equal E, W, N, or S)	The numeric characters after the alpha can be used to calculate the address range. Note: These address ranges (in Dupage Co, IL) end in 799, while the address ranges in Kane Co, IL, end in 999.
	Iron County	A,S,E,W	nAnnn	The numeric characters after the Alpha can be used to calculate the address range.
	Kane County	A,S,E,W	nAnn, nnAnnn (where A can equal E, W, N, or S)	The numeric characters after the alpha can be used to calculate the address range.
	Wisconsin Lake County	B	An, Ann, Annn (where A can equal A-Z)	The numeric characters after the alpha can be used to calculate the address range because the alpha is constant for a given range.
Louisiana	Acadia County	H	nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	Calcasieu County	H	nn-nn, nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	St. Landry County	H	nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	Vernon County	H	nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
Massachusetts	Northampton	H	0n-00, 0n-0n, nn-00, nn-nn,	The numeric characters after the hyphen can be used to calculate the address range

Address Formats for Specific Areas (Continued)

State	Location	Address Format Code	Address Format Variations	Incrementing Range (Area-specific)
Michigan	Alger County, Schoolcraft County, Dickinson County, Menominee County, Gogebic County, Mackinac County	B	Annn, Annnn, Annnnn (where A can equal E, W, N, S)	The numeric characters after the alpha can be used to calculate the address range because the alpha is constant for a given range.
Missouri	Stone County	H	nnn-nn	If there are two numbers after the hyphen, the range increments at 99.
New Jersey	Bergen County Fair Lawn Morris County	H	n-00, n-0n, n-nn, 0n-nn, 0n-0n, 0n-00, nn-00, nn-0n, nn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	Passaic County	H	n-00, n-0n, n-nn, 0-0n, 0-nn, n-0nnn, n-nnnn, nn-00, nn-0n, nn-nn, 0n-00, 0n-0n, 0n-nn, nn-nnn, nnn-00, nnn-0n, nnn-nn, nnn-nnn	The numeric characters after the hyphen can be used to calculate the address range. Note: Up to three digits (0-9) can exist before and after the hyphen.
	Penns Grove	H	0n-0n, nn-0n, nn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	Voorhees Twp,	H	nnn-0n	There is only one address existing for this format.

Address Formats for Specific Areas (Continued)

State	Location	Address Format Code	Address Format Variations	Incrementing Range (Area-specific)
New Mexico	Doña Ana County	H	nn-nn, nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	Grant County	H B	nnn-nn An	The numeric characters after the alpha can be used to calculate the address range because the Alpha is constant for a given range.
	Otero County	B H	Annn, nnn-nn	The numeric characters after the alpha can be used to calculate the address range because the Alpha is constant for a given range.
	San Juan County	H	nn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	San Miguel County	H	nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
New York	(statewide)	Y, V	nE, nnE, nnnE, nW, nnW, nnnW	The numeric characters before the alpha can be used to calculate the address range.
	Erie County	B	An	The numeric characters after the alpha can be used to calculate the address range because the Alpha is constant for a given range.
	Manhattan	H	nnn-00, nnn-0n, nnn-nn	The numeric characters after the hyphen can be used to calculate the address range.
	Queens, NYC	H	n-00, n-0n, n-nn, 0-0n, 0-nn, n-0nnn, n-nnnn, nn-00, nn-0n, nn-nn, 0n-00, 0n-0n, 0n-nn, nn-nnn, nnn-00, nnn-0n, nnn-nn, nnn-nnn	Note: Up to three digits (0-9) can exist before and after the hyphen.

Address Formats for Specific Areas (Continued)

State	Location	Address Format Code	Address Format Variations	Incrementing Range (Area-specific)
Ohio	Henry County	B	Annn (where A can equal A-Z)	The numeric characters after the alpha can be used to calculate the address range because the alpha is constant for a given range.
	Portland (Subsets of Postal Codes 97219 & 97201)	Z	00n, 0nn, 0nnn, 0nnnn	If the value represented by n is between 1-99, then there are three digits, i.e. 001 to 099; if between 100 and 999 then there are four digits, i.e. 0100 to 0999; if between 1000 and 9999 then there are five digits, i.e. 01000 to 09999.
Pennsylvania	Perkiomen Twp,	H	nnn-nn	There are only two addresses for this location: 365-01 and 365-02
	Londonderry Twp	H	nnn-nn, nn-0n, nnn-0n, n-000n, n-0nnn, n-nnnn, n-00nn	If there are 3 characters before the hyphen, the range increments at 99. For formats with 1 character before the hyphen, the range increments at 9999.
Puerto Rico	(territorywide)	H	n-n, n-nn, n-nnn, nn-n, nn-nn, nn-nnn, nnn-n, nnn-nn, nnn-nnn	The numeric characters after the alpha can be used to calculate the address range because the alpha is constant for a given range.
		C	nAn, nAnn	The numeric characters after the alpha can be used to calculate the address range.
		1	AA-n, AA-nn, AAA-nn, AAA-nnn	The numeric characters after the hyphen can be used to calculate the address range because the alphas are constant for a given range.
		B	An, Ann, Annn	The numeric characters after the alpha can be used to calculate the address range because the alpha is constant for a given range.
Vermont	Chittenden County	B	An, Ann' Annn (Where A can equal A-Z)	The numeric characters after the alpha can be used to calculate the address range because the alpha is constant for a given range, i.e. range A1 to A99 would be 1-99.

Address Formats for Specific Areas (Continued)

State	Location	Address Format Code	Address Format Variations	Incrementing Range (Area-specific)
Wisconsin	(statewide)	I,J,K,L,O,P, Q,R	AnnnAnnn,[1] AnnnAnnnn, AnnnAnnnnn (where A can equal E, W, N, or S)	The numeric characters after the second alpha can be used to calculate the address range.
	Marathon County	B	AAn, AAnn, AAnnn (where A can equal E, W, N, S)	The numeric characters after the alpha can be used to calculate the address range because the alpha is constant for a given range.
		F	AnnnnnA	The numeric characters between the alphas can be used to calculate the address range.
	Polk County	H	nnn-nn	If there are two numbers after the hyphen, the range increments at 99.
	St. Croix County	H	nn-nn	The numeric characters after the hyphen can be used to calculate the address range.

1. There can be 1-3 digits between the alphas and 3-5 digits after the second alpha. There is a maximum of ten digits.

Table 6-9

- Examples 1 and 2: New links are created whenever any characters change left of and including the alpha. For example, the numeric value left of the alpha changes from 15 to 16 or the alpha character changes from W to N. The characters left of and including the alpha can be different on opposite sides of the element as long as they match for each side respectively. For example, one side of a segment can be 15W000-15W152 and the opposite side is 14W751-14W799. See *Figure 6-66.*

- Examples 3 - 4: New links are created if the alpha changes. A node is included between A1-A99 and B1-B99.

- Example 5: New links are created whenever any characters change left of and including the second alpha. For example, when characters left of the second alpha change from N121W20198 to N122W20198 or the alphas switch W227N4599 to N45W22801. The characters left of and including the second alpha can be different on opposite sides of the segment as long as they match for each side respectively. See *Figure 6-66.*

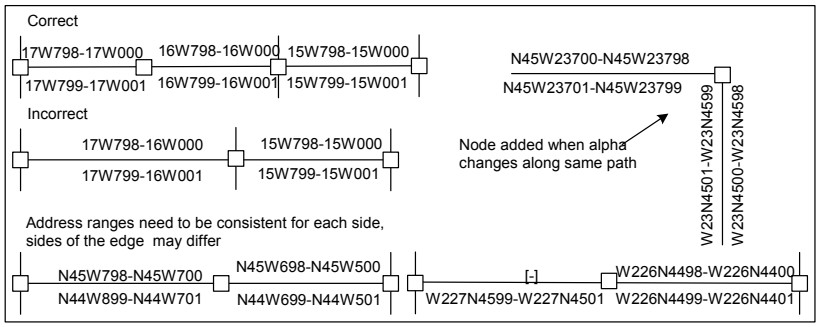


Figure 6-66

- Example 6: Links always have the same alpha for all addresses.
- Example 7: New links are created to separate Leading Zero addresses from Numeric addresses.
- Examples 8 -18: New links are created when the number left of the hyphen changes. See *Figure 6-67*. For each block, the number of digits to the right of the hyphen may change. For example, the range for a block may begin at 98-900 and end at 98-1099.

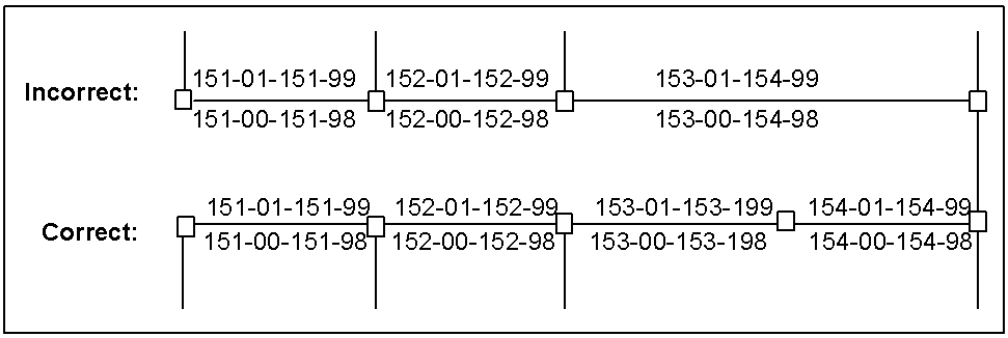


Figure 6-67

- In the above examples, portions of the address can be dropped in order to calculate an address range. However, it is important to keep these portions of the address during destination selection and map display. For example, 50 Main St and 050 Main St exist on 2 separate links in Portland.
- Example 19: Links always have the same leading digit and alpha for all addresses.
- Examples 20 & 21: New links are created when the alphas change.

6.2.196 Left Address Scheme

Definition The numbering scheme for the addresses assigned to the left side of the link.

Value
E - Even

M - Mixed

O - Odd

Length 1

Type Text

Usage The ***Left Address Scheme*** is used in conjunction with related address attributes and the associated name for destination selection and geocoding.

Specification

- ***Left Address Scheme*** = E is applied to indicate that only the even numbers of the address range are valid. Even address ranges must begin with “2”, rather than “0”, except in case of non-numeric addresses (i.e. 12-00 to 12-98).
- ***Address Scheme*** = M is applied to indicate that both the even and odd numbers of the address range are valid.
- ***Address Scheme*** = O is applied to indicate that only the odd numbers of the address range are valid.
- ***Address Scheme*** = Undefined is published when the address is unknown or no address exist.
- Address data is applied to both the right and left sides of a link. Right and left sides are relative to the reference node of the link.
- In North America, addresses are applied in Detailed City, Inter-Town, and In-Process Data areas where they exist in reality.
- Addresses may also be included in non-Detailed City areas. However, they are not required.

6.2.197 Left Area ID

Definition Unique identifier for the lowest level admin on the left side of the link and a pointer to the Area Main Record for use in determining the higher levels of the link’s administrative hierarchy.

Value nnnnnnnnnn

Length 10

Type Numeric

Usage Area information can be used for destination selection and map display. Area information can be used to uniquely define destinations.ailed information.

6.2.198 Left Non-Reference Address

Definition This is the house number on the left side of the link at the non-reference end.

Value

Length 10

Type Text

Usage The ***Left Non-Reference Address*** is used in conjunction with related address attributes and the associated name for destination selection and geocoding.

Specification

- ***Left Non-Reference Address*** is applied for the left side of a named and addressed link.
- Address data is applied to both the right and left sides of the link. Right and left sides are relative to the reference node of the link.
- See rules under ***Left Reference Address***.

6.2.199 Left Postal Code

Definition The postal code for the left side of the link. A Postal Code represents the code generated by the government to facilitate mail delivery.

Value Maximum of 11 alpha numeric characters

Length 11

Type Text

Usage While this feature can be used for destination selection this is usually not recommended, except in the case of refined address resolution. For example, when the same address exists twice within a city, a postal code selection may narrow down which address is preferred.

When displaying an address, the system may also want to display the postal code.

Specification

- A postal code is assigned to each side of a link.
- Postal Codes may be assigned in Inter-Town, In-Process Data, and Connector Road areas. However, they are not required. They are always included in Detailed City areas.
- If a coastline or country border defines the boundary and the adjacent country has not been built yet the known Postal Code is duplicated on both sides.
- Communities served by P.O. boxes will still have the appropriate postal code applied to the links. For example, Carmel by the Sea only has P.O. Boxes and no addresses, but carries the Postal Code for the P.O. Boxes.
- Postal Codes that represent a single building or business are not included. (These are sometimes called unique zips or point zips in the U.S., U.S.V.I., and P.R.).
- Postal Codes in Europe are not always coded to the most detailed Postal level. In some countries Postal Codes only refer to a few houses, so coding the full Postal Code would require splitting existing links to create very small links. As an example the Vulcanusdreef in Utrecht in the Netherlands is one flat with addresses 5 - 391 odd, which can only be accessed by one entrance. There are 13 different Postal Codes for these addresses, so representing all of these would mean splitting the link into 15 new links. Therefore only the part of the full Postal Code which refers to a street or a couple of streets is entered. The table below shows how Postal Codes are published for each country:

Postal Code Structure per Country

Country	Structure (including spaces)	Example reality	Published Postal Code
Albania	N/A	Does not exist	N/A
Andorra	N/A	Does not exist	N/A
Argentina	4 Numeric	5501 Godoy Cruz	5501
Australia	4 Numeric	NSW 1001	1001
Austria	4 Numeric	1239 Wien	1239
Bahrain	N/A	Does not exist	N/A
Belarus	6 Numeric	220053 Minsk	220053
Belgium	4 Numeric	1930 Zaventem	1930
Bosnia-Herzegovina	5 Numeric	71000 Sarajevo	71000

Postal Code Structure per Country (Continued)

Country	Structure (including spaces)	Example reality	Published Postal Code
Botswana	N/A	Does not exist	N/A
Brazil	9 Alpha Numeric	40301-110 Bahia	40301
Brunei	6 Alphanumeric	Bandar Seri Begawan BS8610	BS8610
Bulgaria	4 Numeric	1000 Sofia	1000
Canada	7 Alphanumeric 4 Aphanumeric	L3X 2L4 Newmarket SOA1 Saskatchewan	L3X 2L4 OA1
Channel Islands	7 Alpha Numeric	JE3 7BY	JE3 7
China	(See China SIF+ Reference Manual)		
Croatia	5 Numeric	HR-10000	10000
Czech Republic	6 Numeric	110 00 Praha	110 00
Denmark	4 Numeric	8900 Randers	8900
England	6-8 Alpha Numeric	M3 1DP M41 7BZ WD6 4RN CV32 5EZ W1A 4RZ EC1A 2BN GIR 0AA	M3 1 M41 7 WD6 4 CV32 5 W1A 4 EC1A 2 GIR 0
Estonia	5 Numeric	11212 Tallinn	11212
Finland	5 Numeric	02170 Espoo	02170
France	5 Numeric	75016 Paris	75016
Gibraltar	N/A	Does not exist	N/A
Germany	5 Numeric	52062 Aachen	52062
Greece	6 Numeric	115 21 Athens	115 21
Hongkong-China	N/A	Does not exist	N/A
Hungary	4 Numeric	1046 Budapest	1046
India	6 Numeric	New Delhi 110034	110034
Indonesia	5 Numeric	Bandung 40115	40115
Ireland[1]	1-2 Numeric 2 Alpha Numeric	Dublin 2 Dublin 6W	2 6W
Isle of Man	7-8 Alpha Numeric	IM3 2EF IM99 5TT	IM3 2 IM99 5
Italy	5 Numeric	20129 Milano	20129
Jordan	5 Numeric	Amman 11937	11937
Kuwait	N/A	Does not exist	N/A

Postal Code Structure per Country (Continued)

Country	Structure (including spaces)	Example reality	Published Postal Code
Latvia	4 Numeric	LV-1073	1073
Lesotho	3 Numeric	Maseru 100	100
Liechtenstein	4 Numeric	9495 Triesen	9495
Lithuania	5 Numeric	LT-03500 Vilnius	03500
Luxembourg	4 Numeric	2449 Luxembourg	2449
Macau-China	N/A	Does not exist	N/A
Macedonia	4 Numeric	1000 Skopje	1000
Mexico	5 Numeric	02860 Mexico D.F.	02860
Malaysia	5 Numeric	59100 Kuala Lumpur	59100
Moldova	4 Numeric	MD-2012 Chisinau	2012
Monaco	5 Numeric	98000 Monaco	98000
Montenegro	5 Numeric	81000 Podgorica	81000
Namibia	N/A	Does not exist	N/A
Netherlands	7 Alpha Numeric	5673 BC Nuenen	5673
New Zealand	4 Numeric	Wellington 6001	6001
Northern Ireland	7-8 Alpha Numeric	BT1 4DA BT24 8PR	BT1 4 BT24 8
Norway	4 Numeric	5096 Bergen	5096
Oman	N/A	Does not exist	N/A
Poland	6 Numeric with hyphen	81-116 Gdynia	81-116
Portugal	8 Numeric with hyphen 4 Numeric	1900-618 1900	1900-618 1900
Puerto Rico	10 Numeric	San Juan, PR 00915-0982	00915
Qatar	N/A	Does not exist	N/A
Romania	6 Numeric	060274 Bucharesti	060274
Russia	6 Numeric	Moskva 103375	103375
San Marino	5 Numeric	47031 San Marino	47031
Saudi Arabia	N/A	Does not exist	N/A
Scotland	6-8 Alpha Numeric	G1 3QS G52 4JN EH8 7SH AB23 8DU	G1 3 G52 4 EH8 7 AB23 8
Serbia	5 Numeric	11000 Beograd	11000
Singapore	N/A	Does not exist	N/A

Postal Code Structure per Country (Continued)

Country	Structure (including spaces)	Example reality	Published Postal Code
Slovak Republic	6 Numeric	827 00 Bratislava	827 00
Slovenia	4 Numeric	4000 Kranj	4000
South Africa	4 Numeric	Honeydew 2040	2040
South Korea	7 Alpha Numeric	Seoul 110-110	N/A
Spain	5 Numeric	08008 Barcelona	08008
Swaziland	4 Alpha Numeric	Mbabane H100	H100
Sweden	6 Numeric	162 65 Vaellingby	162 65
Switzerland	4 Numeric	3052 Bern - Zollikofen	3052
Taiwan	N/A	Does not exist	N/A
Thailand	5 Numeric	Bangkok 10150	10150
Turkey	5 Numeric	01960 Ceyhan	01960
Ukraine	5 Numeric	02094 Kiev	02094
United Arab Emirates	N/A	Does not exist	N/A
United States	10 Numeric	Santa Clara, CA 94084-1163	94084
U.S. Virgin Islands	10 Numeric	St Thomas, VI 00802-2321	00802
Vatican City State	5 Numeric	00120 Vatican	00120
Wales	7-8 Alpha Numeric	SA6 8ER CF33 4PT	SA6 8 CF33 4

1. Only the Built-up Areas of Dublin have postal codes.

6.2.200 Left Reference Address

Definition This is the house number on the left side of the link at the reference end.

Value

Length 10

Type Text

Usage The ***Left Reference Address*** is used in conjunction with related address attributes and the associated name for destination selection and geocoding.

Specification

- ***Left Reference Address*** is applied for the left side of a named and addressed link.

- Address data is applied to both the right and left sides of a link. Right and left sides are relative to the reference node of the link.
- Addresses are included for named roads within airports when applicable.
- In North America, addresses are applied in Detailed City, Inter-Town, and In-Process Data areas where they exist in reality.
- In Europe, address inclusion varies by country in Detailed City areas.
- Addresses may also be included in non-Detailed City areas. However, they are not required.
- Duplicate addresses may exist when present in reality and necessary for accurate representation. For example in Europe, if the addresses 2a and 2b exist on the same road, they are represented as 2 for both instances. In the U.S., 12 Main St may exist twice within a city. Both links would carry these addresses.
- Postal zones usually make addresses unique within a city or Built-up Area
- In Europe, actual address ranges include only addresses of existing structures. For example, the address of a vacant lot would not be included. Actual address ranges are not rounded to the nearest hundred (e.g., 112-168, rather than 100-198).
- In North America, logical address ranges include the entire range of valid addresses for a given block, regardless of whether or not a structure is present. Logical address ranges are often represented in blocks of 100 (e.g., 100-198).
- In North America, apartment numbers are not included in the database. Though the mailing address may be 650 E Weddell Dr #140, only the 650 would be included as an address.

6.2.201 Left Side Non-Reference Address

The Left Side Non-Reference Address is equivalent to the ***Left Non-Reference Address***.

6.2.202 Left Side Reference Address

The Left Side Reference Address is equivalent to the ***Left Reference Address***.

6.2.203 Link ID

Definition Unique identifier for the link.

Value nnnnnnnnnn

Length 10

Type Numeric

Usage ***Link ID*** is used to identify each link in the database.

Specification
- Link IDs are unique.

6.2.204 Manoeuvre

The Manoeuvre information can be found under ***Intersection Coding***.

6.2.205 Manoeuvre Link ID

Definition Link ID of a manoeuvre link associated with the Condition/Driving Manoeuvre (CDM). Identifies the links involved in the Restricted Driving Manoeuvre condition.

Value nnnnnnnnnn

Length 10

Type Numeric

Specification
- All the links must be taken into account. A turn may be legal on a sub-set of the links. See *Figure 6-68*. The prohibited manoeuvre is from Link A to Link B to Link C to Link D. However, it is legal to go from Link C to Link D when traversing from Link F to Link E.

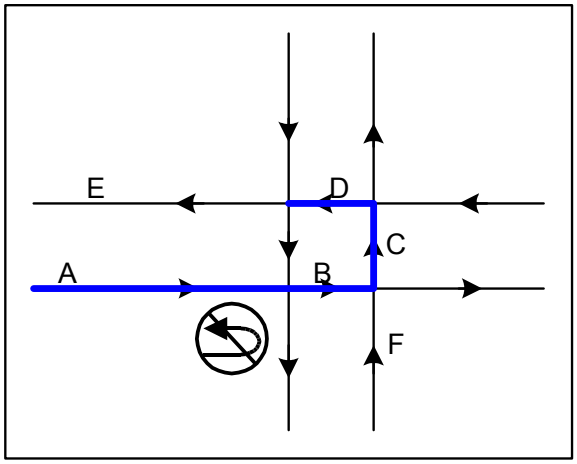


Figure 6-68

- For more information see *Section G.1, Restricted Driving Manoeuvre*

6.2.206 Maximum Admin Level

Definition Identifies the valid number of administrative levels of a country.

Value 1-7

Length 1

Type Numeric

Usage When creating the administrative hierarchy, this attribute can be used to determine the valid number of administrative levels per country.

Specification

- This attribute identifies the number of administrative level of a country, including the Built-up Area level (settlement level).
- For example, in the U.S., there are 4 administrative levels. Therefore, 4 is the ***Maximum Admin Level***.

6.2.207 Maximum Attributes

The Maximum Attributes is equivalent to the ***Detailed City***.

6.2.208 Modifier Type

Definition Identifies the modifier type associated with the CDM.

Value 10 - Number of Passengers

11 - Motorcycles Considered Carpool

12 - Hybrids Considered Carpool

Length 10

Type Numeric

Specification

- Each HOV lane has the minimum number of passengers specified.

  Note: The minimum number of passengers is only applicable to Carpools, not to any other Access Characteristics.

- Some HOV lanes allow Hybrid cars on the HOV lane. In case Hybrid cars are allowed on the HOV lane, then Modifier Type 12 = 1 is set in the Access Restriction condition. Otherwise, Modifier Type 12 = 0 is applied.
- Most HOV lanes in North America allow Motorcycles on the HOV lane. In case Motorcycles are allowed on the HOV lane, then Modifier Type 11 = 1 is set in the Access Restriction condition. Otherwise, Modifier Type 11 = 0 will be applied.

6.2.209 Modifier Value

Definition The value associated with the Modifier Type field.

Value

Modifier Type	Value
10 (Number of Passengers)	Numeric Value
11 (Motorcycles Considered Carpool)	1 - Yes 2 - No
12 (Hybrids Considered Carpool)	1 - Yes 2 - No

Length 10

Type Numeric

6.2.210 Multiply Digitised

Definition The ***Multiply Digitised*** attribute identifies links that are digitised with one line per direction of traffic instead of one line per road and using the rules listed below.

Value Y - Multiply Digitised

N - Not Multiply Digitised

Length 1

Type Boolean

Usage For wide roads a link is digitised for each direction of traffic (instead of for each road) in order to improve map matching of the car to the road map. The ***Multiply Digitised*** attribute identifies these opposing lanes of traffic when it is reasonable to represent them as a single line on displays and printed maps.

When route guidance calls for a u-turn involving a multi-digitised road, the guidance given should be "make a u-turn at intersection" and not "make a left turn", followed by "make a left turn."

Specification

- ***Multiply Digitised*** = Y is applied to roads where opposing lanes of traffic are separately digitised and no more than 80 metres/262 feet apart. When the roadbeds are more than 80 metres apart, they should not be represented as a single line on displays and therefore ***Multiply Digitised*** = N is applied. See *Figure 6-69* and *Figure 6-70.*

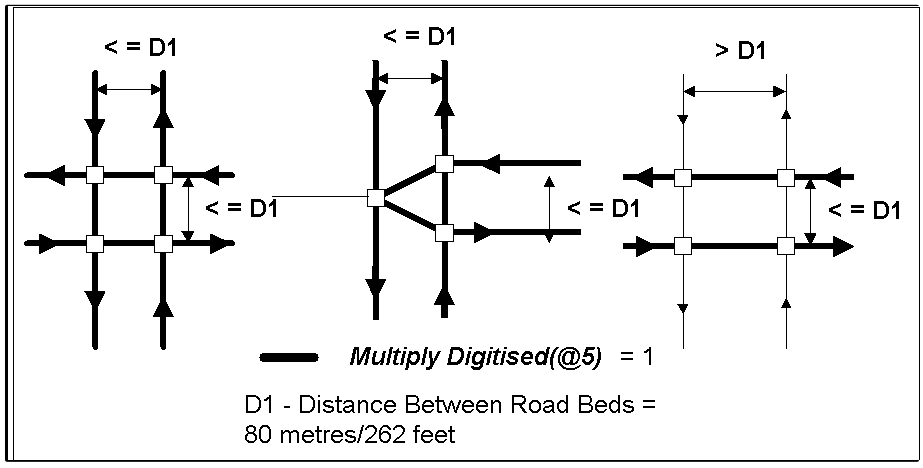


Figure 6-69

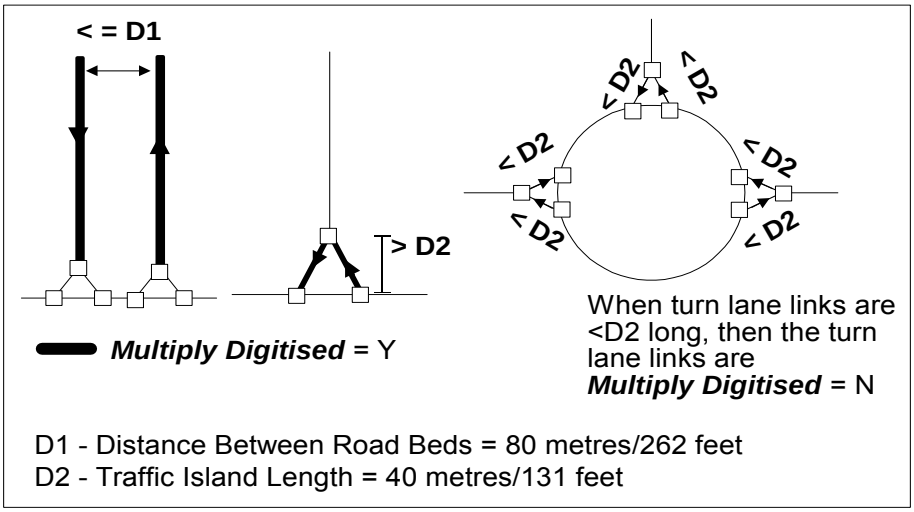


Figure 6-70

- The above rule does not apply when any of the following are applied to the link:

  Ramp = Y,

  Direction of Travel = B, or

  Manoeuvre = Y

  In these cases, the road segment receives ***Multiply Digitised*** = N.

- ***Multiply Digitised*** = N is applied to roads when any linear feature is located between the separately digitised opposing lanes of traffic. The reason for this is that to maintain proper map display with the other feature, the roadbeds must remain separate in map display.

- The start and end points for parallel links with ***Multiply Digitised*** = Y coding are consistent in length (within 25 metres).

- Separately digitised opposing lanes of traffic that are on top of each other instead of being separated horizontally are coded ***Multiply Digitised*** = N.

- An example of this would be a double-decker bridge.

- Links that receive ***Multiply Digitised*** = Y will not be greater than 80 metres apart or shorter than 40 metres in length. See *Figure 6-70*.
- For non-navigable links, ***Multiply Digitised*** is published as N.
- For more information see *Appendic H, Rules for European Traffic* and *Appendix I, Rules for North American Traffic*.

(This page intentionally left blank)

6.2.211 Name on Road Sign

Definition ***Name on Road Sign*** indicates the name assigned to a road by the official organisation responsible for the existence and maintenance of the road. The ***Name on Road Sign*** is generally the name posted on the street signs.

Value Y - Name on Road Sign

N - Not Name on Road Sign

Length 1

Type Boolean

Usage For destination selection any name may be used. However only names with ***Name on Road Sign*** = Y and ***Exit Number*** = Y should be used for route guidance.

A link may have more than one name with ***Name on Road Sign*** = Y. There is no distinction in this case to which name is more important than the other name.

Specification

- A name with ***Name on Road Sign*** = Y may not be the name that is on every street sign. It is the predominant name(s) for a stretch of road.
- Every named link must have at least one name which is ***Name on Road Sign*** = Y. However, multiple names with ***Name on Road Sign*** = Y may exist on a named link.
- It is impossible to rank a ***Feature Name*** (non route number) with ***Name on Road Sign*** = Y and a Feature Name (a route number) with ***Name on Road Sign*** = Y when they are both published for the same link.
- For detailed information on naming rules see *Section B.1, General Naming Rules.*
- Applies to navigable linear features only.

6.2.212 Name Route Type

Definition The route type indicates that the road's name is actually a route number and in many countries is displayed in a shield symbol (i.e. Interstate and State routes in the U.S.).

Value

Code	Description
(space)	Not Applicable
1	U.S. Interstate or European Level 1 Road

Code	Description
2	U.S. Federal or European Level 2 Road
3	U.S. State or European Level 3 Road
4	U.S. County or European Level 4 Road
5	European Level 5 Road
6	European Level 6 Road

See *Table 6-10* and *Table 6-11* for Name Route Type definitions by country.

Length 1

Type Numeric

Usage ***Name Route Type*** can be used for display and map publication to display the appropriate route shield when used in conjunction with the ***Direction on Sign***.

Specification

- NAVTEQ does not publish route shield icons.
- A link may have more than one Route Number.
- Each name assigned to a road may have a different route type.
- ***Name Route Type*** may be applied to ferry routes.
- The following do not receive ***Name Route Type***:
  - Non-numeric routes such as Garden State Parkway, Bayshore Freeway, or Trans Canada Hwy/Autoroute Transcanadienne which may or may not be represented in a shield symbol.
  - Grande Raccordo Anulare in Italy.
  - Features with no associated route identifier.
  - Names on Frontage Roads unless they are posted shield signs.
  - Numbered routes that are added for address matching purposes only. (U.S. Only)
  - Separately digitised controlled access roads such as HOV or reversible lanes.

Country	Name Route Type 1	Name Route Type 2	Name Route Type 3	Name Route Type 4	Name Route Type 5	Name Route Type 6
Albania	“European” E#	“Autostradës” A#	“Rrugë Shteterore” SH#			
Andorra	N/A	N/A	“Carretera General” (CG#)	“Carretera Secundària” CS#, CS-#, CS-N#		
Argentina	“Ruta Nacional” #, ##, ###, or A###	“Ruta Provincial” #, ##, ###				
Australia	“National Route” #	“State” #	“Metropolitan” #	“Tourist Drive” #	“National Highway” #	N/A
Austria	"European" E#	“Autobahnen” A#	“Schnellstrassen” S#	“Bundesstrassen” B#, B#+letter L#[1]	Landesstrassen, Bezirkstrassen, Privatstrassen des Bundes L#, L#+letter, #, P#	#
Bahrain	N/A	N/A	N/A	N/A	N/A	N/A
Belarus	"European" E#	“Magistrale” M#	“Republic Road” P#, P##, P###	“Local Road” H####	N/A	N/A
Belgium	"European" E#	“Autosnelwegen” A#	“Gewestwegen” N#			B#, R#
Bosnia-Herzegovina	"European" E#	“Autoput” A#	“Magistralni put” M#	“Regionalni put” R#		
Botswana	A#	B#	N/A	N/A	N/A	N/A
Brazil	“Federal” BR-###	“State” XX-### [2]	N/A	N/A	N/A	N/A
Brunei	Pan Borneo Highway xx-yy (where xx is the Route Number and yy is the section code.)	Under Investigation	Under Investigation	Under Investigation	Under Investigation	Under Investigation

Country	Name Route Type 1	Name Route Type 2	Name Route Type 3	Name Route Type 4	Name Route Type 5	Name Route Type 6
Bulgaria	"European" E#	“Magistrale” A#	“Put” #			
Canada[3]	“Primary Provincial Routes/Autoroutes” HWY-#, AUT-#	“Secondary Provincial Routes/Autoroutes” HWY-#, RTE-#	“Regional, County, District” RR-#, CR-#, DR-#, Hwy-#, Rte-#			
Channel Islands		“A-Roads” A#	“B Primary” “B Secondary” B#	“C-Roads” C#		
China	“Highway/Urban Highway” A#	“National Road” G#	“Provincial Road” S#	“County Road” X#, XB#, XJ#, XK#	“Town Road” Y#	N/A
Croatia	"European" E#	“Autocesta” A#	“Drzavna Cesta” D#	“Zupanijska Cesta” Z#	N/A	N/A
Czech Republic	“European” E#, E##, E###	“Dálnice” D#, D##	“Silnice I.třídy” #, ##	“Silnice II.třídy” ###	“Silnice III.třídy” ####, #####, ####+letter #####+letter[4]	
Denmark	“European” E#	“Primærrute” #, ##	“Sekendærrute” ###			
Estonia	“European” E#	“Põhimaantee” #, ##	“Tugimaantee” ##	“Kõrvalmaantee” ###		
Finland	"European" E#	“Valtatie” # (1-39)	"Kantatie" # (40-99)	"Seututie" ###	“Muun Yleisen Tie” ####	#####

Country	Name Route Type 1	Name Route Type 2	Name Route Type 3	Name Route Type 4	Name Route Type 5	Name Route Type 6
France	"European" E#	“Autoroutes” A#	“Routes Nationales” N#	“Routes Départe-mentales” D# “Départementale Stratégique” DS#	"Routes Commu-nales" C# "Routes Vicinales" V# “Voies Rurales” R# “Voie Communale” VC# “Chemin Rural” CR# “Chemin Vicinal” CV# “Chemin Communal” CC#	M#, T#
Germany	"European" E#	“Autobahn” A#	“Bundesstrassen” B#	“Landesstrassen” L# “Staatsstrassen” S#, ST#	“Kreisstrassen” K# In Bavaria, OA#, PAF#, AB#, etc.	Forststrassen F###
Gibraltar[5]						
Greece	"European" E#	“National Roads” #, ##, A#				
Hong Kong-China	“Federal” #	N/A	N/A	N/A	N/A	N/A
Hungary	"European" E##	“Autópálya” M##	“Országút” #, ##, ###, ####, #####	####, #####		
India	“National” N#, N##	“State”				
Indonesia	“Jalan Nasional”	“Jalan Provinsi”	“Jalan Kabupaten”	“Jalan Kotamadya”	“Jalan Tol”	N/A
Ireland	"Motorway" M#	"National" N#	"Regional" R#			

Country	Name Route Type 1	Name Route Type 2	Name Route Type 3	Name Route Type 4	Name Route Type 5	Name Route Type 6
Isle of Man		“A-Roads” A# “B-Roads” A#	B#			
Italy	"European" E#	“Autostrada” A#	“Strada Statale” SS#	“Strada Provinciale” SP# “Strada Regionale” SR#		
Jordan	Under Investigation	Under Investigation	Under Investigation	Under Investigation	Under Investigation	Under Investigation
Kuwait	Under Investigation	Under Investigation	# RD	N/A	N/A	N/A
Latvia	"European" E#	“Galvenie Autoceli” A#	“Skiras Autoceli (1st class road)” P#	“Skiras Autoceli (2nd class road)” V#		
Lesotho	A#	Under investigation	Under investigation	Under investigation	Under investigation	Under investigation
Liechtenstein	N/A	N/A	“Haupstrassen” ##			
Lithuania	"European" E#	“Magistraliniai Keliai” A#	“Krasto Keliai” ###	“Rajoniniai Keliai” ####		
Luxembourg	"European" E#	“Autoroutes” A#, B#	“Routes National” N#	“Chemins Repris” CR#		
Macau-China	N/A	N/A	N/A	N/A	N/A	N/A
Macedonia	“European” E#	“Autoput” M#				
Malaysia	“National” E#	“Federal” J##[6]	“Local” # or ##			
Mexico	“Federal” MEX-#	“Estado” Estado Abbr -#				
Moldova	“European” E##	“Drumuri Magistrale” M##	“Drumuri Republi- cane” R##	“Drumuri Locale” L###		

Country	Name Route Type 1	Name Route Type 2	Name Route Type 3	Name Route Type 4	Name Route Type 5	Name Route Type 6
Monaco	N/A	N/A	“Routes Nationales” N#	“Routes Départe-mentales” D#		
Montenegro	“European” E#	“Autoput” #				
Namibia	B##	C## MR##	D##	P##	N/A	N/A
Netherlands, The	"European" E#	“Autosnelwegen” A#	“Nationale wegen” N#			“Stadsroutenum-mers” S#
New Zealand	“State Route” SH #	“Urban Route” #	N/A	N/A	N/A	N/A
Northern-Ireland	"Motorway" M# A#(M)	"A-Roads" A#	"Regional" B#			
Norway	"European" E# “Stamveger” #, ##	"Riksveg" #, ##, ###	"Fylkeveg" #, ##, ###			
Oman	E-##	RT-#	N/A	N/A	N/A	N/A
Poland	“European” E#	“Autostrada” A#	“Droga ekspresowa” S#	“Droga Krajowa” # , ##	“Droga Wojewodzka” ###	
Qatar	N/A	N/A	#	N/A	N/A	N/A
Puerto Rico	“Interstate” A-	“Territorial” C-	CS-	PR-		
Portugal	"European" E#	"Autoestrada" A#	"Itenerário Principal" IP#	"Itenerário Comple-mentar" IC#	"Estrada Nacional" N#	"Estrada Municipal" M#
Romania	"European" E#	"Autostrada" A##	“Drum National” DN#, DN##, DN###	“Drum Judete” ###		

Country	Name Route Type 1	Name Route Type 2	Name Route Type 3	Name Route Type 4	Name Route Type 5	Name Route Type 6
Russia	"European" E#	M#	A#	P#, R#[7]	N/A	N/A
San Marino	"European" E#	“Autostrada” A#	“Strada Statale” SS#	“Strada Provinciale” SP#		
Saudi Arabia	##	###	####	N/A	N/A	N/A
Serbia and Montenegro	“European” E#	“Autoput” #				
Singapore	N/A	N/A	N/A	N/A	N/A	N/A
Slovak Republic	"European" E#, E##, E###	“Dialnice” D#, D##	“Cesty I.triedy” #, ##, #X[8], ##X[8]	“Cesty II.triedy” ###, ###X[8]	“Cesty III.triedy” ####, #####, ######, ####X[8], #####X[8], ######X[8]	N/A
Slovenia	“European” E#	“Avtocesta” A#	“Hitra Cesta” H#	““Glavna Cesta” #	“Regionalna” #	
South Africa	"National" N#	"Regional" R#	"Metro" M#			
South Korea	Under Investigation	Under Investigation	Under Investigation	Under Investigation	Under Investigation	Under Investigation
Spain	"European"[9]	"Autopista"[9]	"Nacional"[9]	“Autonomica first order#[9]	“Autonomica second order#[9]	“Autonomica Local”[9]
Swaziland	Under investigation	Under investigation	Under investigation	Under investigation	Under investigation	Under investigation
Sweden	"European" E# “Stamveger” E-#	"Riksväg" # 9 - 99	"Länsväg" # 100 - 499			
Switzerland	"European" E#, E##	“Autostrassen” A#, A##, A#.#, A#.A	“Hauptstrassen” #, ##, ###, ####			
Taiwan	“Federal” #	“Provincial” ##	###	N/A	N/A	N/A
Thailand	#	##	###	####		

Country	Name Route Type 1	Name Route Type 2	Name Route Type 3	Name Route Type 4	Name Route Type 5	Name Route Type 6
Turkey	E#	O-#	D-#, ###. ##	##.##	N/A	N/A
UK[10]	“Motorways” M#	“A-Roads” A#	“B-Roads” B#			
Ukraine	"European" E#	M##	P##	T##,##		
United Arab Emirates	E-##	RT-#	N/A	N/A	N/A	N/A
U.S.[11]	"Interstate" I-#	"Federal" US-#	"State"	"County" CR-# “Parish” PR-# "Bureau of Indian Affairs" BIA-#		
U.S. Virgin Islands	N/A	N/A	N/A	RT-###		
Vatican City State	"European" E#	“Autostrada” A#	“Strada Statale” SS#	“Strada Provinciale” SP#		

1. “L#” as Route Type Level 4 exists in Voralberg only.
2. XX equals the first two letters of the state name. For example, PE045.
3. Business and related route indicators are named and may carry an appropriate Route Type. See Canada Country Profile document for detailed Route Type infomation.
4. The representation of numbers in combination with letters e.g. 01119 A are applied to small and often dead end roads.
5. No Route Types exist in Gibraltar
6. The letter indicates the State. For this example, J stands for Johor.
7. Represents the Route Type in the Language Code = RUX.
8. X represents letters A through Z
9. Refer to Spain Country Profile Document for detailed Route Type information.
10. Refer to the corresponding Country Profile Documents for Ireland, Channel Islands, and Isle of Man.
11. Route numbers in the U.S. are generally alphanumeric (e.g. I-94), but may contain alpha characters and punctuation after the hyphen (e.g. I-35W, I-H1, US-9 -14, etc.)

Table 6-10

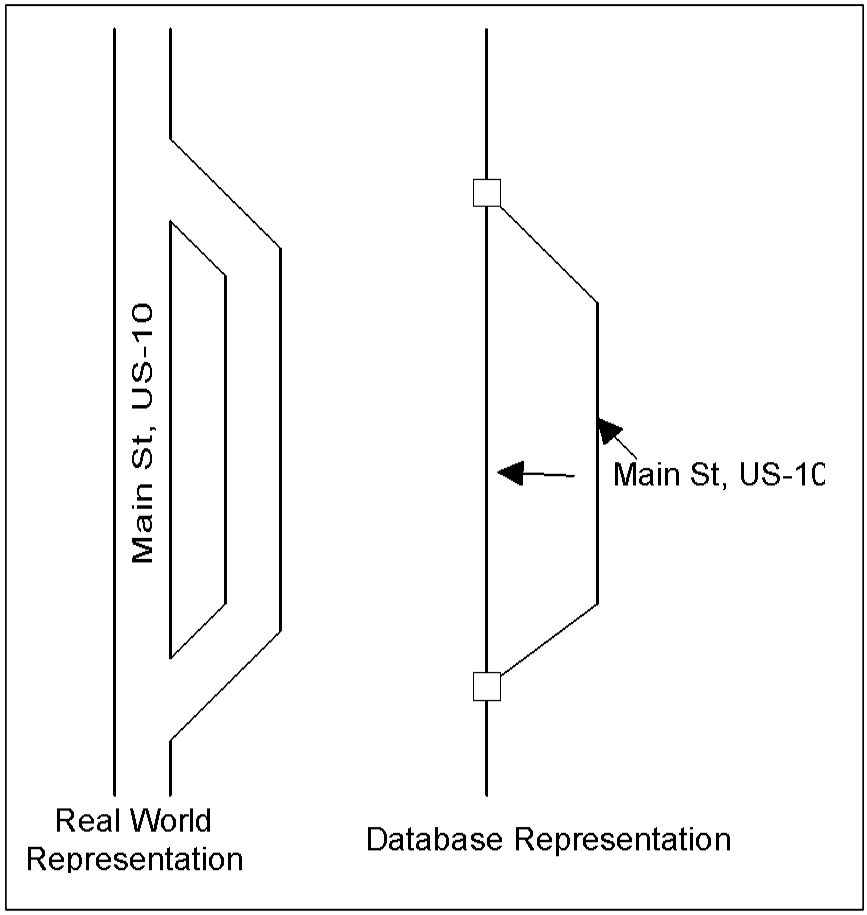

Main St, US-10
Main St, US-10
Real World
Representation
Database Representation

Figure 6-71

State	State Route	State	State Route	State	State Route
Alabama	AL-	Louisiana	LA-	Ohio	OH-
Alaska	AK-	Maine	ME-	Oklahoma	OK-
Arizona	AZ-	Maryland	MD-	Oregon	OR-
Arkansas	AR-	Massachusetts	RT-	Pennsylvania	PA-
California	CA-	Michigan	M-	Rhode Island	RI-
Colorado	CO-/E-	Minnesota	MN-	South Carolina	SC-
Connecticut	CT-	Mississippi	MS-	South Dakota	SD-
Delaware	SR-	Missouri	MO-	Tennessee	TN-
Florida	SR-	Montana	MT-	Texas	TX- FM- RM- RR-
Georgia	GA-	Nebraska	NE-	Utah	UT-
Hawaii	HI-	Nevada	NV-	Vermont	VT-
Idaho	ID-	New Hampshire	RT-	Virginia	VA-
Illinois	IL-	New Jersey	RT-	Washington	WA-
Indiana	IN-	New Mexico	NM-	West Virginia	WV-
Iowa	IA-	New York	RT-	Wisconsin	WI-
Kansas	KS-	North Carolina	NC-	Wyoming	WY-
Kentucky	KY-	North Dakota	ND-		

Table 6-11

6.2.213 Name Type

Definition Identifies the type of Area Name (i.e. Base, Exonym,Synonym, or Abbreviation)

Value A – Abbreviation

B – Base

E – Exonym

S – Synonym

Length 1

Type Text

Usage All Area Names (Base, Abbreviation, Exonyms, and Synonyms) can be used for destination selection and map display for languages supported by NAVTEQ.

Specification Base

A Base name is a name given in a language that is considered official in a given administrative area.

- If multiple names exist (in the same official language) for a particular administrative area, the base name represents the most commonly used administrative name.

- In administrative areas with multiple official languages, multiple Base names are published for Area Names if the official names are different in each language

  Note: The Base Name with the default language code is always published first.

Abbreviation

- Abbreviations are based on the official abbreviations for a country. For instance, in the U.S., the official abbreviation for California is CA. The state abbreviations are very common in the U.S.

- Abbreviations are not included for all administrative levels. They are applied when an official abbreviation list exists. In North America, the Country (U.S. only), State, and Province levels have official abbreviations.

Synonym and Exonym

A synonym is an alternative (additional) name for a feature in a Language that is official within the given administrative area.

An exonym is a name that is different in another language than it is in the National Language.

- The language code identifies whether the name is a synonym or an exonym of the ***Zone Name*** with the ***Name Type*** = Base.
  - If the name is in the same language as the Base name, this represents a synonym.
  - If the name is in a different language than the Base name, this represents an exonym.
- An exonym is included only when the spelling of the name is different from the spelling in the country's official language(s).

6.2.214 Named Place Name

The Named Place Name is equivalent to the ***POI Name***.

6.2.215 Named Place Name Language Code

The Named Place Name Language Code is equivalent to the ***Language Code***.

6.2.216 Named Place Name Type

The Named Place Name Type is equivalent to the ***POI Name Type***.

6.2.217 National Importance

Definition Indicates the POI name is recognisable without a city name. For example, Heathrow Airport is recognisable without the city name of London.

Value Y - Nationally Important

N - Not Nationally Important

Length 1

Type Boolean

Usage For systems that require city input first, ***National Importance*** allows display of regionally prominent POIs in a scroll list without needing to identify the city name.

Specification • ***National Importance*** is identified for well known:

- International Ferries

  Note: If they are small and not well known, the attribute is not applied.

- National Historical Monuments
- National Parks
- National Public Airports

  Note: In Europe, **National Importance** = Y is applied to airports with more than 300,000 passengers per year.

  Note: In North America, **National Importance** = Y is applied to major public airports.

  Note: Only the main entrance Airport POI is coded **National Importance** = Y. Airport Terminal POIs and all other children associated with the airport are coded **National Importance** = N.

- National Tourist Attractions

- Border Crossings (On ***Functional Class*** = 1 and 2 only)
- Amusement Park (with more than 2 million visitors per year)

  Note: If there are no Amusement Parks with more than 2 million visitors per year, the top 5 in a country are coded as **National Importance** = Y.
- Park in Water
- Museum (with more than 1 million visitors per year)
- Ski Resort
- Sports Complex
- Winery

- The following table lists POI categories that generally do not receive ***National Importance*** = Y. However, exceptions may exist.

Code	SIF+ Category Facility
ATM	3578
Auto Dealership	5511
Auto Service & Maintenance	7538
Automobile Club	8699
Bank	6000
Bowling Centre	7933
Bus Station	4170
Business Facility	5000
Casino	7985
Cinema	7832
City Hall	9121
Community Centre	7994
Commuter Rail Station	4100
Court House	9211
Golf Course	7992
Grocery Store	5400
Hamlet	9998
Higher Education	8200
Highway Exit	9592
Hospital	8060

Code	SIF+ Category Facility
Hotel	7011
Ice Skating Rink	7998
Industrial Zone	9991
Library	8231
Marina	4493
Motorcycle Dealership	5571
Named Place	4444
Nightlife	5813
Park & Ride	7522
Parking Garage/House	7521
Parking Lot	7520
Performing Arts	7929
Petrol/Gasoline Station	5540‘
Place of Worship	9992
Police Station	9221
Public Sports Airport	4580
Rental Car Agency	7510
Rest Area	7897
Restaurant	5800
School	8211
Shopping	6512
Sports Centre	7997
Tourist Information	7389
Train Station	4013

- When a POI qualifies for ***National Importance*** = Y, but is located on an ***In-Process Data*** = Y link, the POI is added but does not receive ***National Importance*** = Y.

- If a Parent/Child relationship exists because of multiple entrances for National Parks, and the parent POI is coded ***National Importance*** = Y the children are also ***National Importance*** = Y.

6.2.218 Node ID

Definition Unique identifier for the node.

Value nnnnnnnnnn

Length 10

Type Numeric

Usage ***Node ID*** is used as a reference for the node in the database.

6.2.219 Non-Reference End Intersection ID

The Non-Reference End Intersection ID is equivalent to the ***Non-Reference Node ID***.

6.2.220 Non-Reference Node ID

Definition The Non-Reference Node is a unique identifier for a link's reference node and is a pointer to the Node Record containing the geometric information for the reference node.

Value nnnnnnnnnn

Length 10

Type Numeric

Usage ***Non-Reference Node ID*** is used as a reference to the node in the database. Knowing the reference/non-reference positions is important in determining right and left link side.

Specification
- See rules for ***Reference Node ID***.

6.2.221 Number of address Ranges

Definition The number of address ranges for the feature. This value includes the Base address range.

Value nn

Length 2

Type Numeric

Usage Indicates that addresses in the Link Address Record must also be taken into account.

Specification
- The ***Number of Address Ranges*** includes the ***Base Address Range***.
- ***Base Address Range*** is published in this record.
- If number of address ranges is more than 1, the remaining ***Address Ranges*** can be found in the Link Address Record.

6.2.222 Number of Area Ids

Definition The Number of Area Ids associated to this Administrative Area. If the number > 1, the additional area ids can be found in the AdminArea table.

Value nn

Length 2

Type Numeric

6.2.223 Number of Attachments

Definition The number of file attachments for this Aggregated Feature.

Value nn

Length 5

Type Numeric

6.2.224 Number of Components

Definition The number of components associated to the Aggregated Feature.

Value nn

Length 5

Type Numeric

6.2.225 Number of Left Zones

Definition The number of zones on the left side of the link. This value includes Left Zone ID 1.

Value 0 - 10

Length 2

Type Numeric

Usage The ***Number of Zones*** can be used to determine how many zones need to be accounted for in destination selection and in building the link's administrative hierarchy.

6.2.226 Number of Right Zones

Definition The number of zones on the right side of the link. This value includes Right Zone ID 1.

Value 0 - 10

Length 2

Type Numeric

Usage The ***Number of Zones*** can be used to determine how many zones need to be accounted for in destination selection and in building the link's administrative hierarchy.

6.2.227 Number of Shapepoints

Definition The number of curvature points associated with this link.

Value nnnnn

Length 5

Type Numeric

Usage ***Number of Shapepoints*** can be used to verify the number of curvature points on a link.

Specification

- Shape points represent the curves along a link. A minimum number of shape points are used to maintain a curve, within 3 metres/10 feet of a road's centreline. The minimum distance between nodes and among nodes and shape points, is 2 m/7 ft, as shown in *Figure 6-72*.

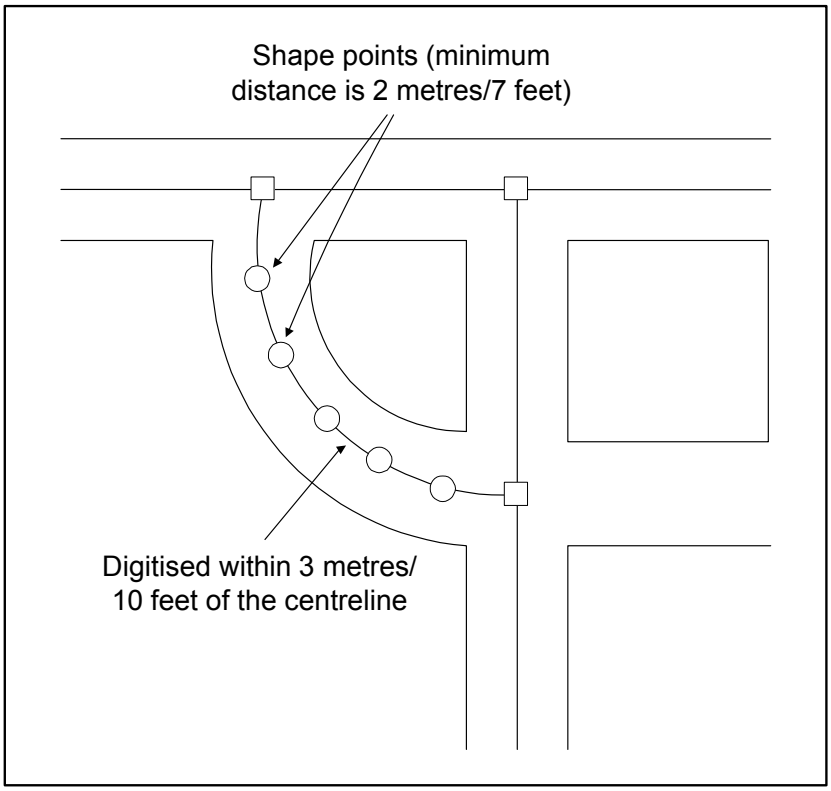


Figure 6-72

6.2.228 Number of Street Names

Definition The Number of different street names Link ID has in this table. A particular street name maybe present more than once if it has multiple address ranges.

Value

Length 2

Type Numeric

6.2.229 Number Children

Definition The number of POI Children.

Value nnnnn

Length 5

Type Numeric

Specification • A POI may have from 0 to 100 children.

6.2.230 Number Parents

Definition The number of POI Parents.

Value nnnnn

Length 5

Type Numeric

Specification • A POI may have from 0 to 10 parents.

6.2.231 Ocean Description

The Ocean Description information can be found under ***Feature Type***.

6.2.232 Ocean ID

The Ocean ID is equivalent to the ***Polygon ID***.

6.2.233 Ocean Name

The Ocean Name is equivalent to the ***Feature Name***.

6.2.234 Ocean Name Language Code

The Ocean Name Language Code is equivalent to the ***Language Code***.

6.2.235 Open 24 Hours

Definition The attribute ***Open 24 Hours*** identifies if a ***Petrol/Gasoline Station*** is open all the time, or not (Europe only).

Attribute Modifier Value
1 - Open 24 Hours
0 - Not Open 24 Hours
Note: The absence of this attribute indicates that this information is not known.

Usage This can be used to identify ***Petrol/Gasoline Stations*** that are open all the time so that drivers are not routed to POIs that are not available when driving outside regular business hours.

Specification

- ***Open 24 Hours*** = 1 is published for ***Petrol/Gasoline Station*** POIs that are open 24 hours, every day of the week, including holidays.
- ***Open 24 Hours*** = 0 is published for ***Petrol/Gasoline Station*** POIs that are **not** open 24 hours, every day of the week, including holidays.

Open 24 Hours is not published when the opening hours of a ***Petrol/Gasoline Station*** POI are unknown.

6.2.236 Parent ID

Definition The POI ID of the associated parent POI.

Value nnnnnnnnnn

Length 10

Type Numeric

6.2.237 Park/Recreation Name

The Park/Recreation Name is equivalent to the ***POI Name***.

6.2.238 Park/Recreation Name Language Code

The Park/Recreation Name Language Code is equivalent to the ***Language Code***.

6.2.239 Park/Recreation Name Type

The Park/Recreation name Type is equivalent to the ***POI Name Type***.

6.2.240 Passing Restriction

Definition The ***Passing Restriction*** is a single link condition indicating whether it is allowed or not to pass other cars on the associated Link.

The coding is based on the presence of a Start of No Overtaking sign. A Passing Restriction condition can be published with Access Characteristics and Date/Time Modifier information when applicable.

Length 5

Usage The ***Passing Restriction*** condition can be used to pre-warn the driver of an upcoming road stretch indicating a no passing zone for all or certain vehicles. Since coded at link-level, the Passing Restriction condition can also be used to visualize and highlight no-overtaking zones.

Specification

- The ***Passing Restriction*** is applied to all links that are affected by Traffic Signs indicating no overtaking. See examples A and B in *Figure 6-73* and *Figure 6-74*).
- The ***Passing Restriction*** attribute coded only when:
  - A sign indicating the start of no overtaking (see examples A and B in *Figure 6-73*), and its corresponding end of no overtaking sign (see examples A and B in *Figure 6-74*) are present.
  - Only a Start of No Overtaking Sign is present, and is followed by a legal divider.

    Note: The ***Passing Restriction*** is not coded when only a change in the divider marking is present in reality.
  - Only an End of No Overtaking Sign is present, and is preceded by a legal divider.

    Note: There are cases where no sign indicating the end of the No Overtaking Zone is present in reality. In these cases, the End of No Overtaking is based on the lane marking indicating an end of No Overtaking.

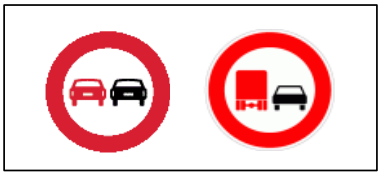


Figure 6-73

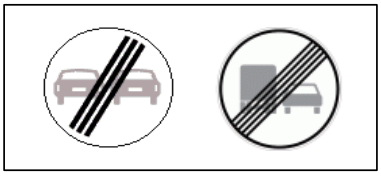


Figure 6-74

- Passing Restriction conditions should be used in conjunction with the ***Traffic Sign*** condition on bi-directional roads in order to determine the direction.
- There will be no gaps in the ***Passing Restriction*** condition coding; it consists of a closed set of Links.
- A ***Passing Restriction*** condition is published with ***Access Characteristics*** information indicating to which ***Access Characteristic*** the no overtaking is applicable.
- A ***Passing Restriction*** condition may be published with ***Date/Time Modifier*** information. Example: A sign indicating no overtaking for Trucks can indicate that trucks are not allowed to overtake from 8:30 till 18:00 hours. In this case ***Date/Time Modifier*** information would be published for the ***Passing Restriction*** condition.

6.2.241 Paved

Definition Describes roads that are made of materials which create a solid surface.

Value Y - Paved

N - Not Paved

Length 1

Type Boolean

Usage ***Paved*** is primarily used for cartographic representation (map display). This attribute could also affect routing algorithms by assigning higher penalties to unpaved roads.

Specification

- Roads that are made of concrete, asphalt, brick or cobblestone are examples of ***Paved*** = Y. Roads that are not solid (e.g. gravel, dirt or grass) are examples of Paved = N road.
- For non-navigable links, ***Paved*** is published as N.

6.2.242 Phone Country Code

Definition Identifies the international dialing code for a country.

Value nnn

Length 3

Type Numeric

Usage This attribute can be used when displaying the telephone numbers for the Points of Interest.

Specification
- ISO-3166 values are used.

6.2.243 Phone Number

Definition The phone number of the POI.

Value nnnnnnnnnnnnnn

Note: A hyphen may exist in varying positions.

Length 15

Type Text

Usage Telephone numbers enable the contacting of POIs for information, reservations, etc.

Specification
- Only one telephone number is included for each POI.
- Maximum of 15 characters.
- Phone numbers are represented with a hyphen between Area Code and Local/ Subscriber Code e.g., in the U.S. 408-7373200, in the Netherlands 499-331414, etc. The country code can be found in the country Reference Record.
- General toll free numbers that are in addition to a POI's main phone number are not included. In North America, these numbers start with 800, 866, 877, or 888, in the Netherlands with 0800.

6.2.244 Point Number

Definition A counter, starting from 1, of the number of Link Shapes for this link.

Value nnn

Length 4

Type Numeric

6.2.245 Population

Definition The ***Population*** of a Named Place is the number of inhabitants of that City Centre.

Attribute Modifier Value Numeric population count

Usage ***Population*** information can be used to vary icon size and to display subsets of ***Named Place*** or ***Hamlet*** icons at various zoom levels.

Specification

- Europe: ***Population*** for Named Places is included for all municipalities. Population is not included for Hamlets.
- North America: ***Population*** for Named Places and Hamlets for all incorporated cities, municipalities, and significant unincorporated cities are included.
- In Canada, Named Place POIs are included for the settlements, but the population only applies to the municipality.
  - For example, the settlement and municipality of Toronto: The Named Place POI technically represents the settlement, but the included population is for the municipality of Toronto.
  - If there is no municipality corresponding to that settlement name, then no ***Population*** figure is published.

6.2.246 Postal Name

Definition ***Postal Name*** identifies additional names that are added to a link merely to match a postal service file. They could not be verified on any other sources or by field research.

Value Y - Postal Name

N - Not a Postal Name

Length 1

Type Boolean

Usage ***Postal Names*** are included in the database to assist in destination selection but should never be used during route guidance or map display.

Specification
- A ***Postal Name*** is always ***Explicatable*** = N.
- Applies to navigable linear features only.

6.2.247 Private

Definition Identifies roads not maintained by an organization responsible for maintenance of public roads.

Value Y - Private Road

N - Public Road

Length 1

Type Boolean

Usage Private allows for unique cartographic representation of roads that restrict public use.

Specification
- ***Private*** = Y is applied to roads that are not maintained by a public organization. This includes links that are signed posted as “Private” and roads that are for military use only.
- For non-navigable links, ***Private*** is published as N.

6.2.248 Protected Overtaking

Definition ***Protected Overtaking*** is a single link condition indicating where a sign is present in reality indicating Protected Overtaking and extra lane(s) are present to support safe overtaking.

Note: Protected Overtaking is only coded on bi-directional roads.

Length 5

Usage The ***Protected Overtaking*** condition can be used to pre-warn the driver of an upcoming road stretch indicating safe overtaking. Since coded at link-level, the ***Protected Overtaking*** condition can also be used to visualize and highlight protected overtaking zones.

Specification

- The ***Protected Overtaking*** condition is applied to all Links that are affected by Traffic Signs indicating protected overtaking. See *Figure 6-75*: sign A for a European example, and sign B for a U.S. example. The end of the protected overtaking is coded when a sign is present in reality indicating the end of the protected overtaking. See *Figure 6-76*: sign A for a European example and sign B for a U.S. example.

  Note: Number of Lanes will be published for the Links coded with a Protected Overtaking condition.

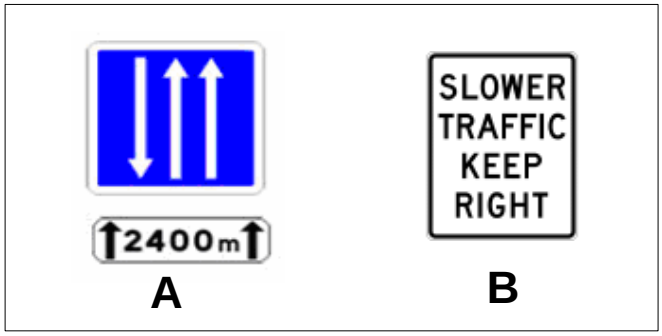


Figure 6-75

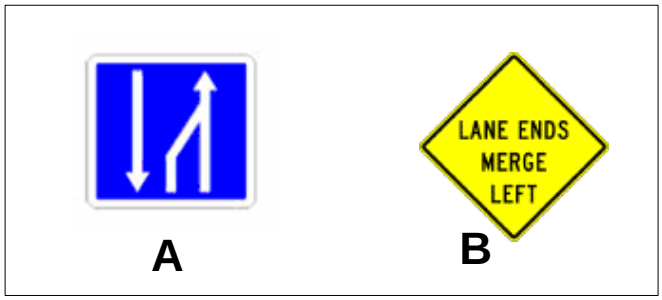


Figure 6-76

- The ***Protected Overtaking*** condition is only coded when a sign is present on a bi-directional road indicating the start of protected overtaking (see *Figure 6-75*: sign A for a European example, and sign B for a U.S. example). In the U.S., an additional lane is formed in these situations. The lane for slower traffic is also referred to as "climbing lane".
- The ***Protected Overtaking*** condition should be used in conjunction with the Traffic Sign on bi-directional roads in order to determine the direction.
- There are no gaps in the ***Protected Overtaking*** condition coding; it consist of a closed set of Links.
- The ***Access Characteristics*** of the ***Protected Overtaking*** condition are set to Y for all vehicle types.
- ***Date/Time Modifier*** information is not published for ***Protected Overtaking*** conditions.

6.2.249 POI Access Road

Definition POI Access Roads connect Points of Interest (POIs) to the road network. These roads provide the only means of entrance or exit from a POI to a public road.

Value Y - POI Access

N - Not POI Access

Length 1

Type Boolean

Usage ***POI Access*** attribute allows an entrance to be identified by the POI name for route guidance. For example, the entrance road to a golf course may be explicated as “Turn right at the golf course entrance.”

Specification
- ***POI Access*** is applied to identify roads that are used solely to enter or exit a POI.
- ***POI Access*** is applied to all links within rest areas and unnamed roads within golf course polygons.
- For non-navigable links, ***POI Access*** is published as N.

6.2.250 POI ID

Definition Unique identifier for the POI.

Value nnnnnnnnn

Length 10

Type Numeric

6.2.251 POI Name

Definition The facility name of the POI.

Value

Length 35

Usage ***POI Names*** can be used for destination selection and map display for languages supported by NAVTEQ.

Specification

- There is no limit to the number of POIs associated with a link. However, two identical POIs are not allowed on the same link. Each POI is uniquely identified by the combination of POI Name, Facility Type, Street Address and Side.
- The type of POI is not included in the name if it is not a part of the official name. For example, Holiday Inn Hotel is not included for the POI Holiday Inn Crowne Plaza.
- If the name of the chain is part of the official name of the POI, it is included in the POI Name.
- Some countries contain names that can only be represented in Unicode (e.g. Russia). Name records for ***POI Name*** will be represented in the DNDC with ***Language Code*** = CYT and are supported by the delivery of a companion External Unicode "look-aside" file. See *Section A.3, External Unicode File Format* for details.
- POIs may be unnamed.
- See *Section B.1, General Naming Rules* for naming rules by category

<u>European Naming Rules</u>

- The official POI name is included.
- When a name contains a dash, a space is not included before or after the dash.
- For In-Vicinity Auto Dealerships and Motorcycle Dealerships:
  - POI Name: **<official name>, <street name> <address>** (or **<address> <street name>**)

- In case the Auto Dealership POI sells multiple brands, the following naming rule is applied: **<official name>** (**<additional brand name>**), **<street name> <address>** (or **<address> <street name>**)
- For example: Autohaus Wagner, Berliner Strasse 2
- A space between the comma and the street name and between the street name and the address is added. If no official name exists, the chain name is applied instead, followed by the street name.

North American Naming Rules

- **Punctuation**
  - Periods are not valid in POI names.
  - Apostrophes are allowed to indicate possessive e.g., “Frankie’s Restaurant”
  - When a name contains a dash, a space is not included before or after the dash, e.g., “Tied-House Cafe and Brewery.”
  - Commas are allowed, e.g., “Wright, Jones, and Smith.”
  - A space or apostrophe is not included following Mc_/Mac_/O_/O’ or similar letter combinations in POI names. For example, the following POI names would be entered as “McDonnell” and “Obrien”.

- **Abbreviations**

Abbreviations are not used unless the POI entry exceeds the length of the field. When this occurs, the official name is searched backward, from the last word in the POI entry, for an authorised abbreviation. The name is abbreviated by the number of words necessary to fit the POI entry into the field. Authorised abbreviations are listed below. If no abbreviation can be determined, then part of the POI entry is deleted as long as name recognition is not affected. For example, a source lists “Teske’s Germania Restaurant-Bar and Beer Garden” which will not fit in the POI name field. Since no acceptable abbreviations can be used, the POI is included as “Teske’s Germania”; this retains name recognition.

- Spaces are not used between acronyms e.g., “TGI Friday’s” not “T G I Friday’s.”

- Business qualifiers such as LTD, Inc, Corp, Assoc are not used unless preceded by an “and” or concatenated. Examples: “NAVTEQ” not “NAVTEQ Corp”, Carey and Co (preceded by “and”), Citicorp (concatenated).

- If POI name includes “The” at the beginning, it is not included, e.g., “Red Lion Inn’, NOT “The Red Lion Inn”. Only include “The” as the first word in the name when it is needed for name recognition, e.g., “The Cafe”.

- POIs representing large areas may have multiple entrances that each will be represented by a separate POI. Each entrance is uniquely named using the official names or detarmin a logical descrptive name such as “POI West Entrance” that will aid the driver.

Approved Abbreviations for Names Greater than 35 Characters (U.S. and Canada Only)

Administration	Admin	East	E	Lakes	Lks	Reservoir	Reserv’r
Agricultural	Agr	Educational	Edu’l	Landing	Lndg	Ride	Rde
Air Force Base	AFB	Elementary	Elem	Learning	Lrng	Ridge	Rdg
Alternative	Alt	Entrance	Ent	Library	Lbry	River	Riv
American	Amer	Environmental	Envr’l	Lodge	Ldg	Saint	St
Associates	Assoc	Fame	Fme	Maintenance	Maint	Sanctuary	Sanct’y
Avenue	NAVTEQ Conv	Field	Fld	Mall	Ml	Savings	Sav
Beach	Bch	Fields	Flds	Management	Mgt	School	Sch
Bed & Break-fast	B&B	Fort	NAVTEQ Conv	Meadows	Mdws	Science	Sci
Branch	Br	Gallery	Gal’y	Medical	Med	Shoal	Shl
Building	Bldg	General	Gen	Memorial	Mem’l	Shores	Shrs
Bluff	Blf	Glen	Gln	Metropolitan	Metro	Society	Soc
Bridge	Brg	Golf Club	GC	Missle Range	MR	South	S
Canyon	NAVTEQ Conv	Golf Course	GC	Monument	Mon	Spring	Spg
Center	Ctr	Golf and Country Club	G&CC	Mount	Mt	Springs	Spgs
Central	Ctr’l	Government	Gov’t	Mountain	NAVTEQ Conv	Square	squ
Chicken	Ckn	Green	Grn	Mountains	Mts	Stadium	Std
Children’s	Chldrn’s	Group	Grp	Municipal	Muni	State	St
Church	Ch	Grove	Grv	Museum	Msm	State Historical Park	SHP
Circle	Cir	Harbor	Hbr	National	Nat’l	State Park	SP
Civil	Cvl	Heritage	Hrtg	Natural	Nat	Station	Stn
Cliffs	Clfs	High School	HS	Naval Air Sta-tion	NAS	Stream	Strm
College	Col	Hills	Hls	North	N	Suites	Sts
Commerce	Com	Historical	Hist’l	Organization	Org	Summit	Smt
Commercial	Com’l	History	Hist	Park	Pk	System	Sys
Company	Co	Hospital	Hosp	Place	Pl	Tabernacle	Tbrncl

Approved Abbreviations for Names Greater than 35 Characters (U.S. and Canada Only)

Conference	Conf	Hotel	Htl	Plains	Plns	Technical	Tech
Conservatory	Cons	House	Hse	Plaza	Plz	Tours	Trs
Convention	Conv	Information	Info	Port	Prt	Trail	Trl
Corporation	Corp	Institute	Inst	Point	NAVTE-QConv	Train	Trn
Country	Cntry	International	Int'l	Precinct	Prct	Tunnel	Tnl
Country Club	CC	Interpretive	Interp	Quarter	Qtr	University	Univ
County	Cnty	Interstate	Intst	Railroad	RR	Village	Vlg
Creek	Crk	Island	Is	Ranger Sta-tion	RS	Valley	Vly
Department	Dept	Junction	Jct	Recreation	Rec	Washington	Wash
Development	Dvlp't	Junior High School	JrHS	Region	Reg	Wells	Wls
Division	Div	Knolls	Knls	Regional	Reg'l	West	W
Downtown	Dntwn	Lake	NAVTEQ Conv	Reservation	Res	White	Wh

Abbreviations (Canada Only)

- Saint and Sainte are abbreviated as "St" and "Ste" for all POIs.
- All other French language features names are not normalized but are entered as shown on sources.

Naming Rules for Airport-Related POIs

- The following rules explain the naming of Airport-Related POIs.

POI	Naming	Example
Airport (4581)	Official Name.	AEROPUERTO DE MÁLAGA
	In the case of a well-known name being preferred above the official name, the well-known name is added as base name and the official name is added as synonym. All other POIs use this well-known name when referencing the airport.	LOGAN INT'L AIRPORT with synonym GENERAL EDWARD LAWRENCE LOGAN INT'L AIRPORT
	The airport name is included in the national language.	
	If more than one main entrance exists the airport name is followed by the junction name if available, otherwise by the street name.	FLUGHAFEN FRANKFURT MAIN-A3 ZUGANG
Airport Terminal (4581)	The word "airport" should not be added to airport terminals.	BARCELONA-TERMINAL A, instead of: AERPORT DE BARCELONA-TERMINAL A
	If there is only one terminal designation and "Arrival" and "Departure" are reached via different access roads, the POI name is the official name (without "airport") followed by a dash followed by Arrival or Departure. Arrival/ Departure is included in the national language.	SCHIPHOL-AANKOMST
	If an entrance link serves multiple terminals, and "Arrival" and "Departure" are for both terminals at the same location, the POI name is the official name (without "airport") followed by a dash, followed by the terminal names divided by the & sign. The terminal names are included in the national language.	STOCKHOLM-ARLANDA-TERMINAL 2&3
	If an entrance link serves multiple terminals, and "Arrivals" and "Departures" are not at the same location, the POI name is the official name (without "airport") followed by a dash, followed by the terminal name(s) divided by the & symbol followed by Arrivals or Departures. The terminal names and Arrivals/Departures are included in the national language.	
	Exonyms for additional languages are included for Europe and Canada.	LOGAN INT'L-T1&2 ARRIVALS
		See *Approved Abbreviations for Names Greater than 35 Characters (U.S. and Canada Only)*.

POI	Naming	Example
Rental Car Agency (7510)	The word “airport” is not added to the Rental Car Agency POIs.	AVIS-EINDHOVEN, instead of AVIS-EIND-HOVEN AIRPORT.
	Company Name followed by a dash and the official airport name.	AVIS-SACRAMENTO INT’L
	In case rental car pick-up and return are on different links, the POI name is the company name followed by pick-up or return followed by a dash and the official airport name (without “airport”).	AVIS PICK-UP-SACRAMENTO INT’L
Hotel (7011))	The word “airport” is not added to the hotel name.	SHERATON-SACRAMENTO INT’L, instead of SHERATON-SACRAMENTO INT’L AIRPORT
	Hotel name followed by a dash and the official airport name (without “airport”).	CROWN PLAZA-HANNOVER
	U.S: POIs that are added via TPD do require this naming convention for National Important airports only.	
Restaurant (5800)	The word “airport” is not added to the restaurant POIs.	APOLLO-PARIS CHARLES DE GAULLE, instead of APOLLO- AÉROPORT DE PARIS CHARLES DE GAULLE
	Restaurant name followed by a dash and the official airport name (without “airport”).	APOLLO-PARIS CHARLES DE GAULLE
	U.S: POIs that are added via TPD do require this naming convention for National Important airports only.	
Parking Lot/Garage (7520, 7521)	The word “airport” is not added to the Parking Lot/Garage POIs.	LEONARDO DA VINCI-PARCHEGGIO, instead of AEROP LEONARDO DA VINCI-PARCHEGGIO
	Official airport name (without “airport”) followed by a dash and the parking name or “parking” if no name is available.	LEONARDO DA VINCI-PARCHEGGIO
	“Long term” or “Short term” information is included in the name if applicable	SCHIPHOL-P3 LANG PARKEREN
	“Parking” is included in the national language.	LOGAN INT’L-PARKING A HOURLY
	U.S: Parking Lots that are added via TPD do require this naming convention for Nationally Important airports only.	
	North America If the parking is private, the POI name is the name of the airport followed by a dash followed by the name of the Hotel or Restaurant followed by the parking name or “parking” if no name is available.	LOGAN INT’L-SHERATON PARKING

- If the POI name exceeds 35 characters with the naming rules mentioned above, then parts of the official name are abbreviated. See *Table 6-12* for abbreviations that will be used.

Note: Periods are not included after the abbreviations.

Name	Language	Abbreviation
Airport	ALL	Arpt
Aéroport	FRE	Aérop
Aeroport	CAT	Aerop
Aeropuerto	SPA	Aerop
Aeroporto	GAG, POR	Aerop
Aeroportua	BAQ	Aerop
Aeroporto	ITA	Aerop
Aérodrome	FRE	Aérodr
Arrival	ENG	ARR
Departure	ENG	DEP
Flygplats	SWE	Flygpl or Flpl
Flygstation	SWE	Flygst or Flst
Flughafen	GER	Flugh or Flh
Flugplatz	GER	Flugpl or Flpl
International	ENG	Int'l
Letiste	CZE	Let
Letisko	SLO	Let
Lentokenttä	FIN	Lent
Lufthavn	DAN, NOR	Lufthvn or Lufth
Luchthaven	DUT	Luchthvn or Luchth
Terminal	ENG	T

Table 6-12

- In North America, International is abbreviated "Int'l"
- Synonyms are included for the main ***Airport(4581)*** POIs only.
  - The 3-character airport code is included as a synonym to the main ***Airport(4581)*** POI. When there are multiple entrances, this synonym is only applied to the one that is the Parent POI. The language code matches the one used for the main ***Airport(4581)*** POI. See http://www.airportcitycodes.com/aaa/CCDBFrame.html for a list of airport codes.

    Note: Some airports do not have a 3-character Airport Code in reality.

- When a well-known name is preferred over the official name, this name is added as the base name and the airport's official name is added as synonym. For example, Base Name = LOGAN INT'L AIRPORT and Synonym = GENERAL EDWARD LAWRENCE LOGAN INT'L.
- Other well-known synonyms are included when applicable. See *Table 6-13* for U.S. examples.

Airport Name/Base Name	Synonym
SAN FRANCISCO INT'L AIRPORT	SFO INT'L AIRPORT
LOS ANGELES INT'L AIRPORT	LAX INT'L AIRPORT
DALLAS/FT WORTH INT'L AIRPORT	DFW INT'L AIRPORT
JOHN F KENNEDY INT'L AIRPORT	JFK INT'L AIRPORT

Table 6-13

- *Table 6-14* contains examples of synonyms for Aéroport de Paris Charles de Gaulle:

Alternate Name	Language Code
ROISSY	FRE
CDG	FRE
PAR	FRE

Table 6-14

- Exonyms are included for all main ***Airport(4581)*** POIs and airport terminals in Europe and Canada. In Europe, exonyms are included for the following languages: Czech, Danish, Dutch, English, Finnish, French, German, Italian, Norwegian, Portuguese, Spanish, Slovakian, and Swedish.
  - *Table 6-15* contains examples of exonyms for Aéroport de Paris Charles de Gaulle:

Alternate Name	Language Code
Aeroporto de Paris Ch de Gaulle	POR
Aeroporto di Parigi Ch de Gaulle	ITA
Aeropuerto París Charles de Gaulle	SPA
Flughaven Paris Charles de Gaulle	GER
Luchthaven Parijs/Charles de Gaulle	DUT
Pariisin Lentokenttä Ch de Gaulle	FIN
Paris Charles de Gaulle Airport	ENG

Alternate Name	Language Code
Paris Charles de Gaulle Flygplats	SWE
Paris Charles de Gaulle Lufthavn	DAN
Paris Charles de Gaulle Lufthavn	NOR
Letisko Pariz-Charlese de Gaullea	SLO
Letiste Pariz-Charlese de Gaullea	CZE

Table 6-15

6.2.252 POI Name Type

Definition The Type of facility name.

Value B - Base Name

E - Exonym

S - Synonym

U - Unnamed

Length 1

Type Text

Usage All ***POI Names*** (Base, Exonyms, Synonyms, and Unnamed) can be used for destination selection and map display for languages supported by NAVTEQ.

Specification Base

- If multiple names exist for a particular administrative area, the base name represents the POI name in the country's official language.

Exonym

- An exonym is a name that is different in another language than it is in the National Language.
- When appropriate, exonyms are applied to a POI.
- For POIs in areas where multiple required languages are spoken, the name of the POI is entered in each of these languages (e.g. for Bolzano/Bozen (Italian/ German) two Named Place POIs are entered. The name(s) in the other language(s) are entered as an exonym.

- In Canada, if settlements in French speaking provinces have names in two different languages, the French name is entered as the base language and the English name as the exonym. When in English speaking provinces, French name is entered as the exonym.

- For Europe, exonyms are entered for nationally important POIs (i.e. Eiffel Tower).

- Exonyms may be translations of the official name.

- Canada Specific:

    - In Quebec province, one POI is entered for all categories (except Named Place POI). If the POI has both an English and French name, the French name is used as the base POI. The English name is entered as an exonym. When multi-language street names exist, the POI is assigned to the French street name.

- See section *Naming Rules for Airport-Related POIs* for specific information regarding exonyms applied to Airport POIs.

Synonym

- A synonym is a name in the National Language which is different than the official name.

- When appropriate, synonyms are applied to a POI.

- Commonly used names for airports are entered as a synonym name for the airport. For example:

    In Los Angeles:

    official name: Los Angeles International Airport

    synonym: LAX

    In Milan:

    official name: Aeroporto Linate

    synonym: Aeroporto Forlanini

- See section *Naming Rules for Airport-Related POIs* for specific information regarding synonyms applied to Airport POIs.

6.2.253 Point Address ID

Definition The Point Address unique identifier.

Value nnnnnnnnnn

Length 10

Type Numeric

6.2.254 Rail Ferry

Definition A Rail Ferry represents the generalised route of a ferry for passenger vehicles via rail.

Value Y - Rail Ferry

N - Not a Rail Ferry

Length 1

Type Boolean

Usage This attribute can be used for map display.

Specification

- See *Section 2.6.6, Ferry Route* for detailed information.
- For non-navigable links, ***Rail Ferry*** is published as N.
- For more information see *Appendix H, Rules for European Traffic*.

6.2.255 Railway Crossing

Definition ***Railway Crossing*** is a condition (Condition Type = 18) indicating the location of a Railway Crossing. It also indicates the type of Railway Crossing.

Usage The Railway Crossing condition can be used for map display and to generate specific driver alerts when approaching a railway crossing.

Specification

- The Railway Crossing condition is included for every Railway Crossing that is part of the scope, regardless if a Traffic Sign is present or not indicating a Railway Crossing.
- The Railway Crossing condition is applied in both driving directions.
- Railway Crossing conditions are only applied to roads that are open to Autos.
- The Access Characteristics of the Railway Crossing condition are set to Y for all vehicle types.
- Date/Time Modifier information is not published for Railway Crossing conditions.

6.2.256 Railway Crossing Type

Definition ***Railway Crossing Type*** indicates if the Railway Crossing is protected with a barrier or unprotected without barriers.

Value 1 – Protected

2 – Unprotected

Usage The supplemental sign displaying validity time can be used for map display.

Specification • The ***Railway Crossing*** condition is published with Condition Modifier 27 equal to one of the following:

- ***Railway Crossing Type*** = 1 (Protected) is applied when the Railway Crossing is protected with a barrier. See *Figure 6-77* below.

Figure 6-77

- ***Railway Crossing*** Type = 2 (Unprotected) is applied when the Railway Crossing is not protected by barriers. See *Figure 6-78* below.

Figure 6-78

- In case a traffic sign is present in reality indicating a railway crossing, then two conditions are applied per driving direction. One condition indicating the traffic sign location and one condition indicating the actual railway crossing.

6.2.257 Railway Name

The Railway Name is equivalent to the ***Feature Name***.

6.2.258 Railway Name Language Code

The Railway Name Language Code is equivalent to the ***Language Code***.

6.2.259 Ramp

Definition Ramps are connectors that provide access between roads that do not cross at grade.

Value Y - Ramp

N - Not a Ramp

Length 1

Type Boolean

Usage This attribute allows explication of manoeuvres involving ramps (e.g. “Take the ramp”). This attribute can also be used for display at different zoom levels or different colors and for route guidance when determining if sign text should be used.

Specification • ***Ramp*** = Y is applied to roads that connect other roads that are not at grade. It is also applied to roads connecting controlled access roads (motorways and freeways). All entrance and exit roads that connect controlled access roads to non-controlled access roads receive ***Ramp*** = Y as do entrance and exit roads that connect frontage roads to the controlled access roads as shown in *Figure 6-79* and *Figure 6-80*.

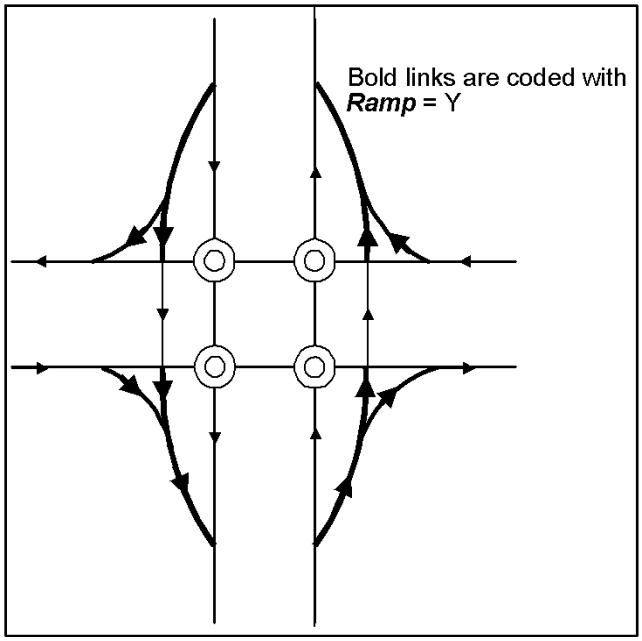


Figure 6-79

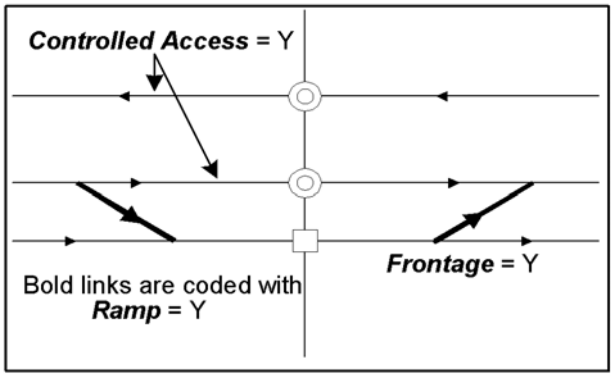


Figure 6-80

- Connections between ***Controlled Access*** roads are coded ***Ramp*** = Y if perceived as an exit. See *Figure 6-81* and *Figure 6-82*.

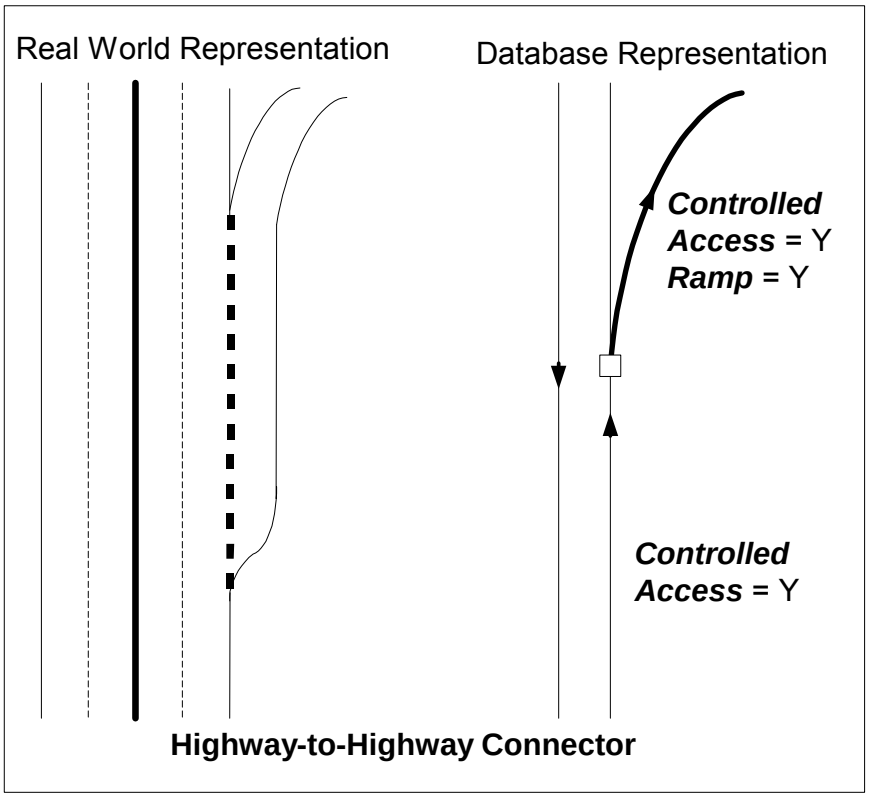

Real World Representation
Database Representation
Controlled Access = Y
Ramp = Y
Controlled Access = Y
Highway-to-Highway Connector

Figure 6-81

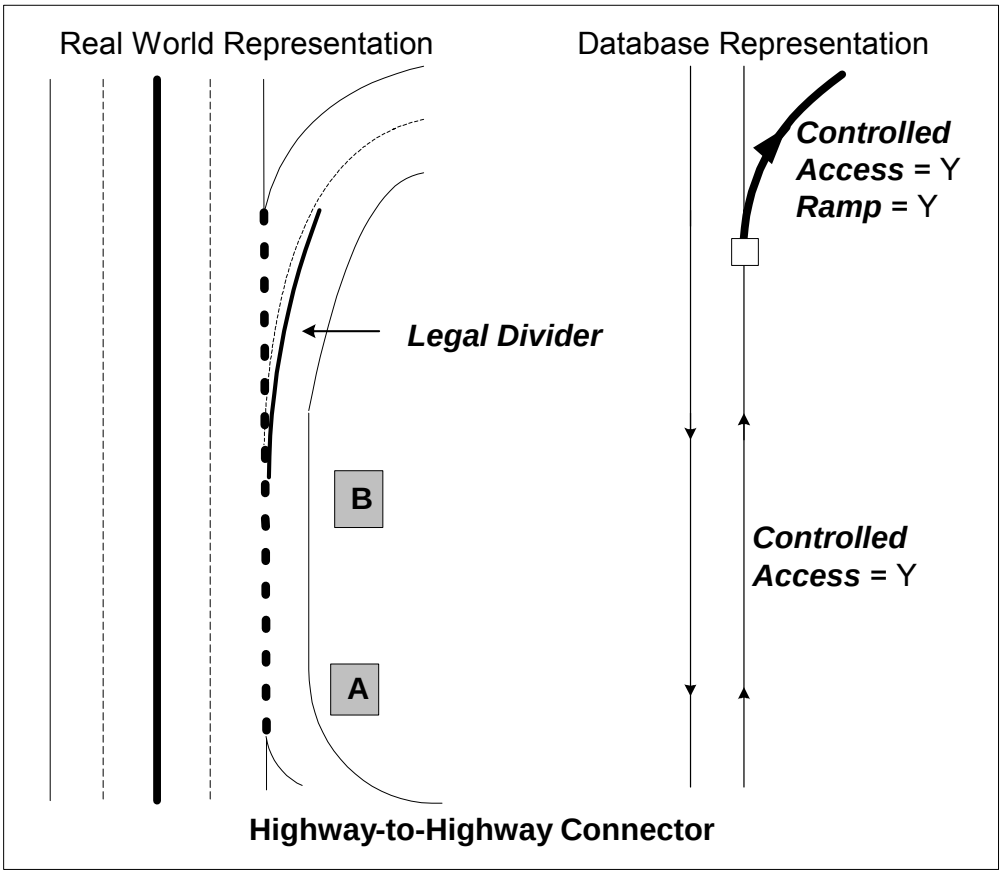


Figure 6-82

- For non-navigable links, ***Ramp*** is published as N.

6.2.260 Reference Class

Definition The Reference Class Identifier.

Value

Length 10

Type Text

6.2.261 Reference Date

Definition Identifies the start dates of the Date/Time Modifier for ***DTM Types*** = A-I. Identifies the days of the week for ***DTM Type*** = 1 and the external date for ***DTM Type*** = 2.

Value

DTM Type	DTM Type Description	Value Examples	Description
A	Date Ranges	**YYYYMMDD** **20020524**	YYYY is the year MM is the month DD is the day
C	Day of Month	**DDDD0000** **00260000**	DDDD is a value in the range 0001-0031
D	Day of Week of Month	**DDDDWWWW** **00010004**	DDDD is a value in the range 0001-0007 Where 0001 is Sunday, 0002 is Monday, etc… WWWW is a value in the range 0001-0005
E	Day of Week of Year	**DDDDWWWW** **00060023**	DDDD is a value in the range 0001-0007 Where 0001 is Sunday, 0002 is Monday, etc… WWWW is a value in the range 0001-0052
F	Week of Month	**WWWW0000** **00030000**	WWWW is a value in the range 0001-0005
H	Month of Year	**MMMM0000** **00080000**	MMMM is a value in the range 0001-0012
I	Day of Month of Year	**DDDDMMMM** **00070007**	DDDD is a value in the range 0001-0031 MMMM is a value in the range 0001-0012
1[1]	Daymask	**XXXXXX-X** **NYYYYYN**	Each X is a Boolean flag starting with Sunday
2[1]	External	Easter	Easter is the only external date defined. Easter is only published for European databases.

1. DTM Types = 1 and 2 are left justified and padded with blanks on the right.

Length 8

Type Text

Usage This enables dynamic route calculation. If the system does not consider this entire record it is either ignoring possible routes or using illegal ones during the specified times.

Specification

- The ***Reference Date*** reflects the start for the condition, while the ***End Date*** reflects the end for the condition.
- ***DTM Type*** = 1 denotes the days of the week: 1st Position = Sunday, 2nd Position = Monday, 3rd Position = Tuesday, 4th Position = Wednesday, 5th Position = Thursday, 6th Position = Friday, and 7th Position = Saturday.
- Examples:

DTM Type	Value	Explanation
Day of Month	00010000	1 januari, 1 Februarty, ..., 1 December
Day of Week of Month	00010002 00020001 00070002 00060005	2nd Sunday of each month 1st Monday of each month 2nd Saturday of each month 5th Friday of each month
Day of Week of Year	00030020 00050052	Tuesday of week 20 Thursday of week 52
Week of Month	00020000	2nd week of each month
Week of Year	00010000 00270000	Week 1 Week 27
Month of Year	M=1 M=7	January July
Day of Month of Year[1]	00150001 00300004	15 January 30 July

1. Day of Month of Year reflects the specified time every year vs. a Date Range that reflects a particular year only.

6.2.262 Reference End Intersection ID

The Reference End Intersection ID is equivalent to the ***Reference Node ID***.

6.2.263 Reference Node ID

Definition The ***Reference Node ID*** is a unique identifier for a link's reference node and is a pointer to the Node Record containing the geometric information for the reference node.

Value nnnnnnnnnn

Length 10

Type Numeric

Usage ***Reference Node ID*** is used as a reference to the node in the database. Knowing the reference/non-reference positions is important in determining right and left link side.

Specification

- Each link has a reference node and a non-reference node. The reference node is the node with the lower latitude. See Example 1 in *Figure 6-83*.

- If the latitudes of both end nodes are identical and their longitudes differ, the reference node is the end node with the lower longitude. See Example 2 in *Figure 6-83*.
- If, however, the latitudes and longitudes of both end nodes are identical but their Z-levels are different, the reference node is the end node with the lower Z-level. See Example 3 in *Figure 6-83*.

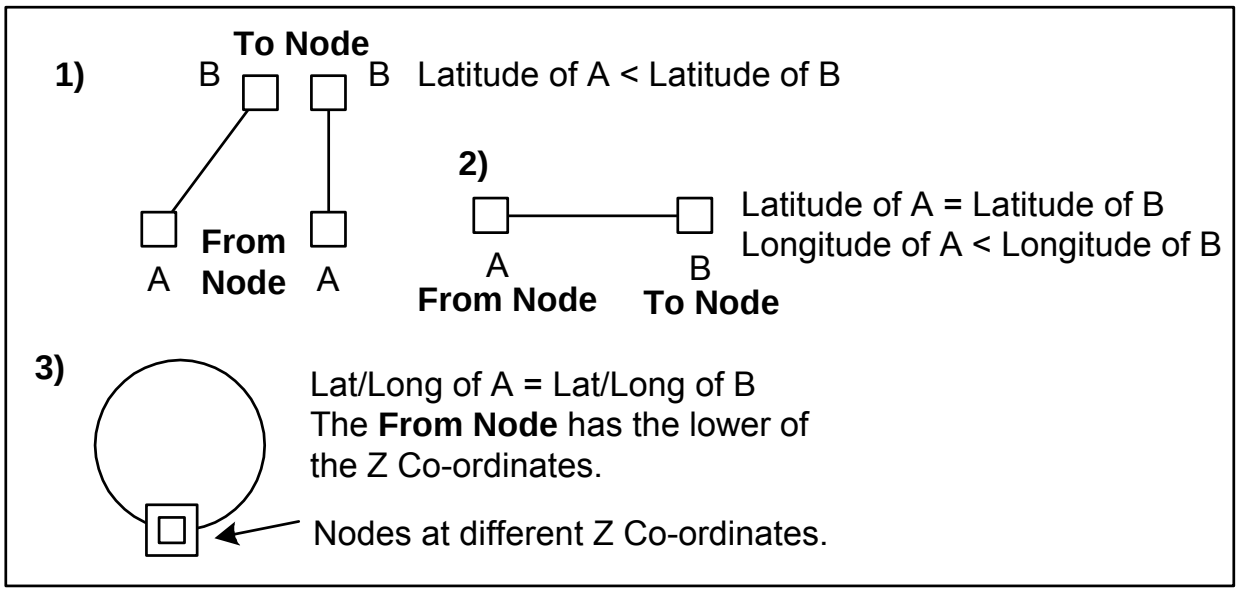


Figure 6-83

6.2.264 Requested Area

Definition Identifies the name of the area.

Value

Length 30

Type Text

6.2.265 Rest Area Type

Definition The attribute modifier for Rest Area Type indicates what type of Rest Area is represented by a ***Rest Area*** POI.

Attribute Modifier Value
1 - Complete Rest Area
2 - Parking and Rest Room only

3 - Parking only

4 - Motorway Service Area

Usage Can be used to indicate the available facilities/services in a Rest Area.

6.2.266 Right Address Format

Definition The format of the addresses on the right side of the link.

Note: The reference and non-reference addresses must have the same format.

Value See ***Left Address Format*** for values.

Length 1

Type Text

Specification • See ***Left Address Format*** for rules.

6.2.267 Right Address Scheme

Definition The numbering scheme for the addresses assigned to the right side of the link.

Value Blank – undefined

E – Even

M – Mixed

O – Odd

Length 1

Type Text

Usage The ***Right Address Scheme*** is used in conjunction with related address attributes and the associated name for destination selection and geocoding.

Specification • See ***Left Address Scheme*** for rules.

6.2.268 Right Area ID

Definition Unique identifier for the lowest level admin on the right side of the link and a pointer to the Area Main Record for use in determining the higher levels of the link's administrative hierarchy.

Value nnnnnnnnn

Length 10

Type Numeric

Usage Area information can be used for destination selection and map display. Area information can be used to uniquely define destinations.

6.2.269 Right Non-Reference Address

Definition This is the house number on the right side of the link at the non-reference end.

Value

Length 1

Type Text

Usage The ***Right Non-Reference Address*** is used in conjunction with related address attributes and the associated name for destination selection and geocoding.

Specification

- ***Right Non-Reference Address*** is applied for the right side of a named and addressed link.
- Address data is applied to both the right and left sides of the link. Right and left sides are relative to the reference node of the link.
- See rules under ***Left Reference Address***.

6.2.270 Right Postal Code

Definition The postal code for the right side of the link. A Postal Code represents the code generated by the government to facilitate mail delivery.

Value Maximum of 11 alpha numeric characters

Length 11

Type Text

Usage While this feature can be used for destination selection this is usually not recommended, except in the case of refined address resolution. For example, when the same address exists twice within a city, a postal code selection may narrow down which address is preferred.

When displaying an address, the system may also want to display the postal code.

Specification

- See rules for ***Left Postal Code.***

6.2.271 Right Reference Address

Definition This is the house number on the right side of the link at the reference end.

Value

Length 10

Type Text

Usage The ***Right Reference Address*** is used in conjunction with related address attributes and the associated name for destination selection and geocoding.

Specification

- ***Right Reference Address*** is applied for the right side of a named and addressed link.
- Address data is applied to both the right and left sides of the link. Right and left sides are relative to the reference node of the link.
- See rules under ***Left Reference Address***.

6.2.272 Right Side Non-Reference Address

The Right Side Non-Reference Address is equivalent to the ***Right Non-Reference Address***.

6.2.273 Right Side Reference Address

The Right Side Reference Address is equivalent to the ***Right Reference Address***.

6.2.274 Roundabout

Definition A roundabout is a contiguous loop with consistent one-way traffic throughout the circle that controls the traffic flow from converging roads.

Value Y - Roundabout

N - Not a Roundabout

Length 1

Type Boolean

Usage This attribute allows explication of manoeuvres involving roundabouts (i.e. “Take the third exit from roundabout”).

Specification • A roundabout is a contiguous loop with consistent one-way traffic throughout the circle that controls the traffic flow from converging roads. See *Figure 6-84*.

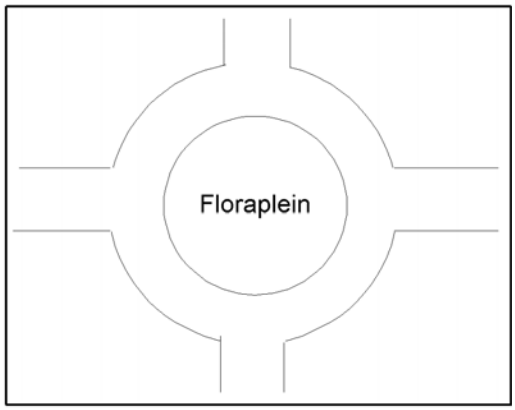


Figure 6-84

- If the geometry has the shape of a roundabout but is not perceived as a roundabout, ***Roundabout*** = N. (For examples: Cul-de-Sacs (global), two armed situations where the round geometry is added solely for slowing down traffic (U.K only), and all two armed reality situations in North America.)

- ***Roundabout*** = Y is applied for the following situations:
  - If a roundabout has 2 or more arms in reality it is coded as ***Roundabout*** = Y, even if not all the roundabout arms are included in the database due to Inter-Town inclusion rules (see *Figure 6-85)*.
  - A section of each additional intersecting road connecting to a roundabout in Inter-Town may be included, even if these roads do not meet Inter-Town inclusion rules (e.g. ***Functional Class*** = 5 roads). This will help to assist guidance (see *Figure 6-85)*.
  - In Europe, if a roundabout is finished, but other future intersecting roads are still under construction, part of the intersecting road is still published.

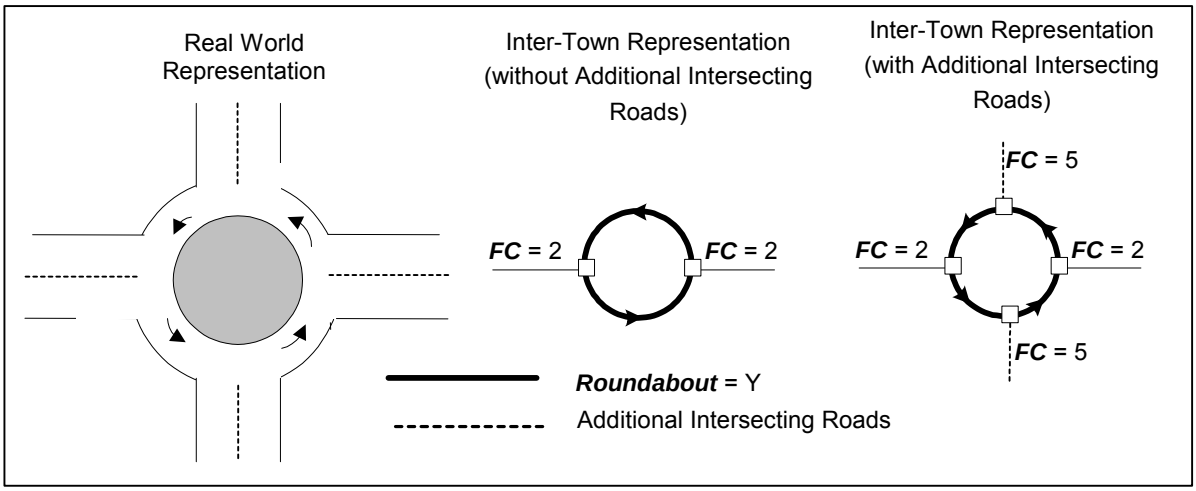


Figure 6-85

- For non-navigable links, ***Roundabout*** is published as N.
- For more information see *Appendix H, Rules for European Traffic*.

6.2.275 Route Type

The Route Type is equivalent to the ***Name Route Type***.

6.2.276 Scenic Route

Definition Scenic Route is a route offering pleasing views of natural landscapes.

Value Y - Scenic Route

N - Not a Scenic Route

Length 1

Type Boolean

Usage ***Scenic Route*** can be used for route calculation, prioritising scenic routes and for map display.

Rules

- ***Scenic Route*** is only applied to roads that allow Autos and Through Traffic.
- ***Scenic Route*** is not applied to a Boat/Rail Ferry or frontage roads.
- ***Scenic Route*** "spurs" are not coded. These "spurs" are roads that lead to a scenic view off the main route.

- A ***Scenic Route*** is navigable and connected (no small gaps exist). Any single ***Scenic Route*** is navigable from start to end point (and back) meaning guidance is not blocked by Restricted Driving Manoeuvres, Gates, Dividers, or ***Direction of Travel***.

6.2.277 Scenic Route Name

Definition Official name for a Scenic Route. If the link is a scenic route, indicates if it has a scenic route name associated with it.

Value Y - Scenic Route Name

N - Not a Scenic Route Name

Length 1

Type Boolean

Usage ***Scenic Route Names*** can be used for destination selection and map display.

Rules

- ***Scenic Route Name*** is applied when the name represents a scenic route.
- ***Scenic Route Name*** is only applied to a link that has ***Scenic Route*** = Y attribute coding.

  Note: Not all links with ***Scenic Route*** = Y will have a ***Scenic Route Name***.
- ***Scenic Route Name*** is coded ***Explicatable*** = N and ***Name on Road Sign*** = N, unless it is the only name on the link, then it is ***Explicatable*** = Y and ***Name on Road Sign*** = Y.

6.2.278 Sequence Number (Aggregated Feature Component)

Definition A counter starting from 1 to the number of components for a specific Aggregated Feature ID

Value nnnnn

Length 5

Type Numeric

6.2.279 Sequence Number (Signs)

Definition A counter starting from 1 to the number of Signs for a specific Sign ID.

Value nnnn

Length 4

Type Numeric

6.2.280 Sequence Number (Restricted Driving Manoeuvres)

Definition A counter starting from 1 to the number of records for this Condition/Driving Manoeuvre.

Value nnnn

Length 4

Type Numeric

6.2.281 Severity Rating

Definition The Severity Rating for this risk prone area. This value is a classification of the hurricane intensity. Valid values can be from 1-10.

Value

Length 2

Type Character

6.2.282 Side

Definition The side of the street the POI is located on.

Value L - Left Side

N - Not Applicable

R - Right Side

Length 1

Type Text

6.2.283 Sign ID

Definition Unique identifier for the sign.

Value nnnnnnnnnn

Length 10

Type Numeric

6.2.284 Sign Language Code

The Sign Language Code is equivalent to the ***Language Code***.

6.2.285 Sign Text

Definition Contains a line of sign text.

Value

Length 60

Type Text

Usage ***Sign Text***, in conjunction with the other attributes, can be used for route guidance (both audible and graphical/textual guidance) and map display.

Specification

- Some countries contain names that can only be represented in Unicode (e.g. Russia). Name records for ***Sign Text*** will be represented with ***Language Code*** = CYT and are supported by the delivery of a companion External Unicode "look-aside" file. See *Section A.3, External Unicode File Format* for details.
- When multiple B or T ***Sign Text*** information exists, multiple Link Sign Records will be published for that destination Link ID.
- When one B and one T ***Sign Text*** information exists, only one Link Sign Record will be published for that destination Link ID.

6.2.286 Sign Text Type

Definition This attribute identifies whether the sign information is a specific destination at the end of a ramp system (branch) or a destination beyond where the ramp system ends (Towards).

Value B - Branch to a street

T - Toward an eventual destination link

Length 1

Type Text

Usage In conjunction with the other attributes, ***Text Type*** can be used for route guidance (both audible and graphical/textual guidance) and map display. For example, this attribute can trigger guidance of "take the main street exit" or "take the exit toward main street".

Specification

- ***Text Type*** = B is applied when the ramp system is directly connected to the name identified in the ***Sign Text***.
- In *Figure 6-86*, Keele Street would be applied as ***Sign Text*** with ***Text Type*** = B.

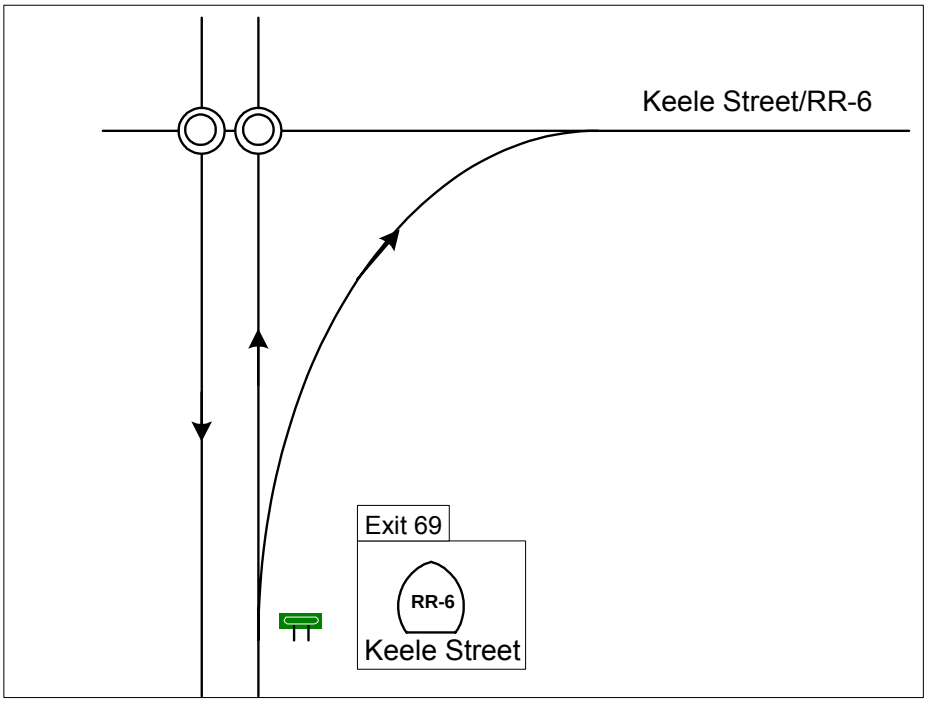


Figure 6-86

- ***Text Type*** = T is applied when an entire ramp system is not directly connected to a link with the name identified in the ***Sign Text***. For example, in the U.S., the sign includes Main St. However, the ramp system does not touch Main St. Main St. would be entered in the ***Sign Text*** field with ***Text Type*** = T.
- All non-road ***Sign Text*** entries (i.e. O'Hare Airport, San Francisco, Paris, etc.) are applied as ***Text Type*** = T.
- In *Figure 6-87*, Los Angeles & San Francisco are examples of ***Text Type*** = T. They are destinations that are not reached directly at the exit from the ramp system.

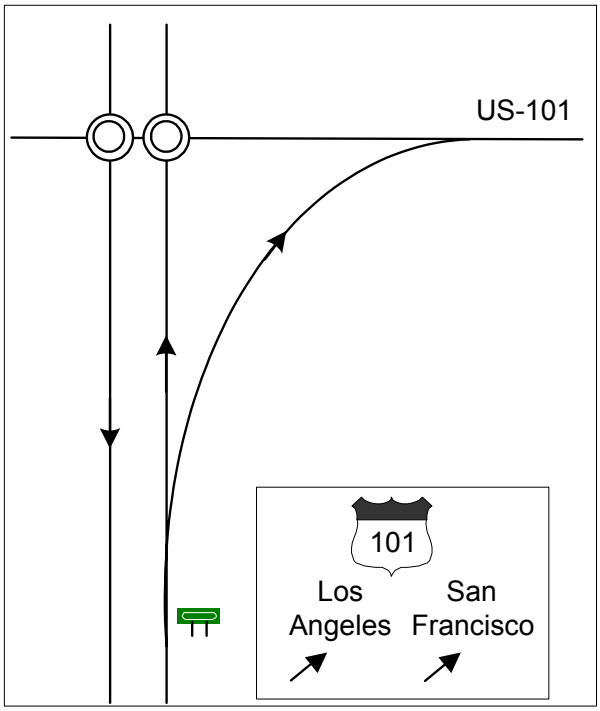


Figure 6-87

6.2.287 Signal/Sign Location

Definition Signal/Sign Location identifies the location of the Traffic Signal at the intersection.

Value
1 - Right
2 - Left
3 - Overhead

Length 5

Type Numeric

Usage
- Signal/Sign Location can be used to display the location of the Traffic Signal at the intersection.

Rules
- The Traffic Signal condition is published with attribute Signal/Sign Location equal to one of the following:
  - Signal/Sign Location = 1 - Right is applied when the Traffic Signal is located on the Right side in the travel direction.
  - Signal/Sign Location = 2 - Left is applied when the Traffic Signal is located on the Left side in the travel direction.

- Signal/Sign Location = 3 - Overhead is applied when the Traffic Signal is located overhead in the travel direction.

- Multiple Traffic Signal conditions are applied in case multiple Traffic Signals exist at the same location. The Signal/Sign Location attribute indicates the detailed position of the Traffic Signal. See *Figure 6-88*.

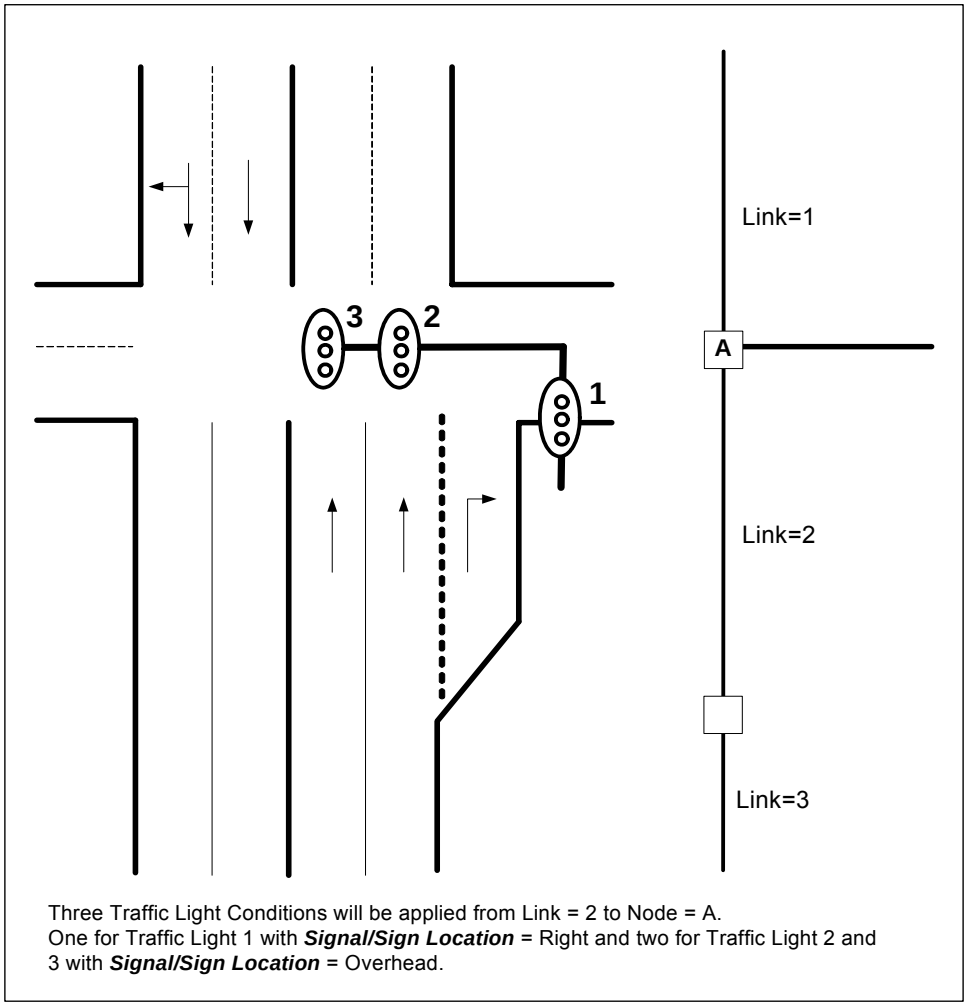


Figure 6-88

6.2.288 Source Lane Number

Definition Source Link Lane Number

Value 01 - 08

Length 2

Type Numeric

Specification

- Lane numbers are always counted from the centre of the roadbed outward in the direction of travel of the condition. For links that are coded with Direction of Travel either from or toward, the centre of the roadbed is determined based on where the centre would be if another link was adjacent with the opposite direction of travel (so centre is toward the opposite link). Right-sided driving countries always count the leftmost lane as one. Left-sided driving countries always count the rightmost lane as one.
- Up to 33 lane source/destination number pairs can be published on a single CDM Lane Traversal Record. If more than 33 connections exist, multiple CDM Lane Traversals records are published.
- See *Figure 6-89* for an example of Lane Traversal with Origin Number of Lanes.

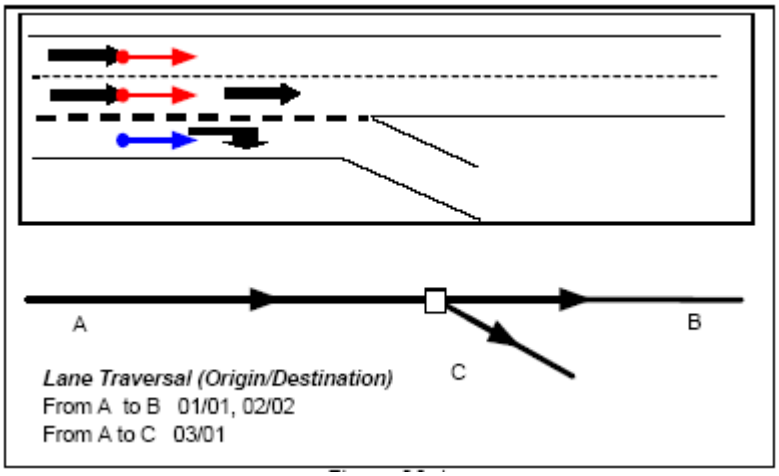


Figure 6-89

- As lanes form a transition Point, a Lane Traversal condition is used to connect the forming lane with a lane on the originating link.

  In some cases, a transition point is included where the lanes involved can be seen as equal merging lanes for two motorways. In these cases, both merging lanes are separately digitised from the controlled access roads. Lane Traversal connections are coded to capture both the exiting and merging lane connections. See *Figure 6-90*.

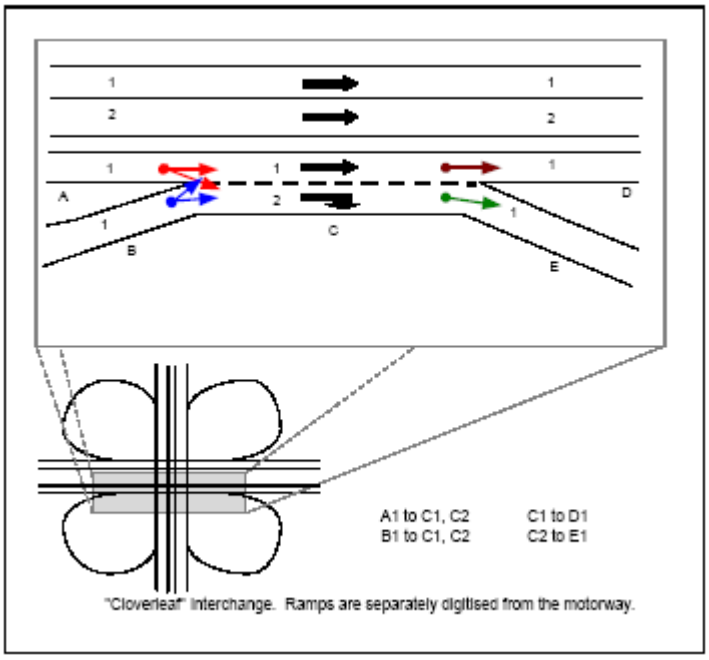


Figure 6-90

- A Lane Traversal condition can be used to connect lanes across other lanes. See *Figure 6-91*.
- For example. In this case, multiple Lane Traversal conditions are published between Link A and link B to separate the bus lane.

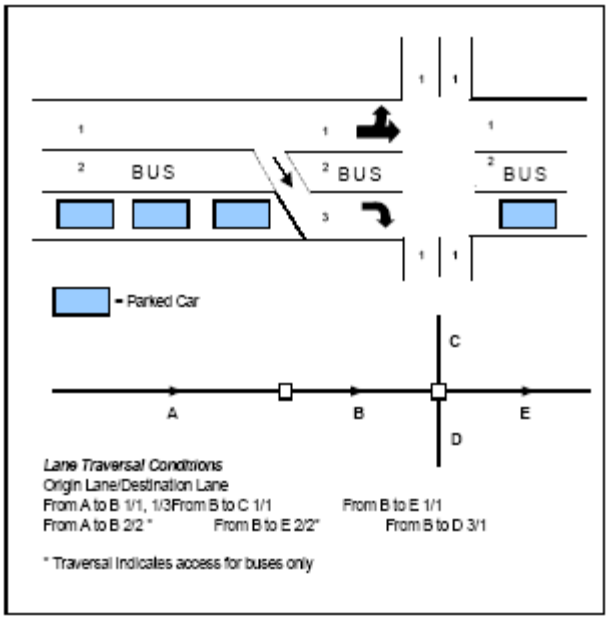


Figure 6-91

- Whenever a Lane Traversal condition is published between two links, lane connections can be specified between all lanes on both the origin and destination. The lane connections are specified across multiple conditions when needed.

6.2.289 Source Travel Direction

Definition (Source/Destination) Direction of Travel identifies legal travel directions for a navigable link.

Value (space) - Not Applicable

B - Both Directions

F - From Reference Node

T - To Reference Node

Length 1

Type Text

Specification

- Direction of Travel = F is applied when the direction of travel is one way from the reference node to the non-reference node.
- Direction of Travel = T is applied when the direction of travel is one way to the reference node from the non-reference node.
- Direction of Travel = B is applied when travel is allowed in both directions between the reference and the non-reference nodes.
- Direction of Travel = Not Applicable is applied to non-navigable links.
- The Direction of Travel is determined based on each individual link. Links within the same one-way road may have a different Direction of Travel value because of the relative positions of the reference and non-reference node, as shown in *Figure 6-92*.
- Ferries and walkways receive Direction of Travel = B.

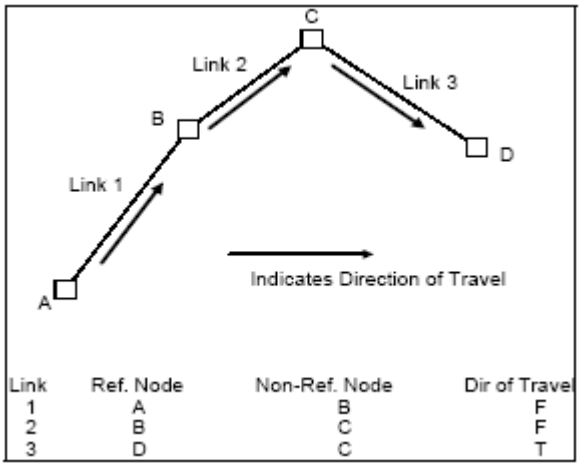


Figure 6-92

6.2.290 Special Speed Situation

Definition ***Special Speed Situation*** indicates a speed that exists under special circumstances.

Condition Type 10

Length 5

Condition Modifier 1
1 - Special Speed Type = Advisory
2 - Special Speed Type = Dependent
3 - Special Speed Type = Speed Bumps Present

Condition Modifier 2 Numeric Value (1-999) - ***Special Speed Limit***

Related Attribute ***Speed Limit Unit***

Condition Modifier 3
1 - Dependent Speed Type = School
2 - Dependent Speed Type = Rain
3 - Dependent Speed Type = Snow
4 - Dependent Speed Type = Time Dependent
5 - Dependent Speed Type = Approximate Seasonal Time
6 - Dependent Speed Type = Lane Dependent

Condition Modifier 4

1 - Time Override = Dawn to Dusk

2 - Time Override = Dusk to Dawn

Usage

Special Speed Situation can be used to further refine the estimation of link traversal times, prioritisation of link selection during route calculation, and calculation of route guidance timing.

Specification

- ***Special Speed Situation*** is published in European and U.S. databases on links with ***Controlled Access*** = Y.

  In Western Europe, and in select Baltic states and East European countries, ***Special Speed Situation*** is also published for links with ***Functional Class*** = 1 to 2.

- ***Special Speed Situation*** is published in Continental U.S. databases on links with ***Controlled Access*** = Y and ***Functional Class*** = 1 or 2.

  Note: The following attribute values are not applicable to links with ***Controlled Access*** = Y:

  - ***Special Speed Type*** - Speed Bumps
  - ***Dependent Special Speed Type*** - School

- ***Special Speed Situation*** is indicated when a road has both a legal speed limit and some situation that causes the legal speed limit to change. The change can be due to time, conditions, or activity. Only ***Special Speed Situation*** signs with a posted speed value or representing a specific speed value by legal statute are included.

- ***Special Speed Situation*** values are included only when applicable to Autos.

- The ***Access Characteristics*** of the ***Special Speed Situation*** Condition are set to Y for all vehicle types.

- The speed limit for a ***Special Speed Situation*** is indicated in the measurement system used in a particular country. This means that speeds posted in kph are entered with their kph value and speeds posted in mph are entered with their mph value.

- Positional accuracy is within +/-50 metres from the start and end of a particular ***Special Speed Situation*** location.

- A ***Special Speed Type*** is always indicated. ***Special Speed Type*** values include:

  - **Advisory.** These posted speeds are not the legal limit, but rather serve to warn a driver that road conditions indicate a lower speed is practical. Typically, the road condition is a curved road or a ramp but it may be due

to a narrow road, narrow bridge, intersecting road, drainage dip, etc. In some cases, the advisory sign is on a different road than the one for which it applies (this can happen with ramps). In this case, the advisory speed is indicated for the road for which it is intended, even if the sign is further than 50 metres from the particular road.

- Advisory speed signs due to construction are not included.

- A speed value is published for advisory signs.

- **Dependent.** This is a speed that is enforced when certain criteria are met. Examples include: School, Rain, Snow, Time Dependent, etc. A speed value is published for all ***Dependent Speed Types*** except for Lane Dependent. A ***Date/Time Modifier*** must be applied to the ***Dependent Speed Type*** = Time Dependent (see below).

  School: School zone signs are often placed to slow drivers before reaching an intersection where children are crossing. Nodes are added to apply the ***Special Speed Limit*** if the school zone sign is greater than 50 metres from an intersection, as shown in *Figure 6-93*.

  Note: The speed value for school zones can be based on signs that have a posted speed value or signify a specific speed based on a legal statute.

  Time Dependent: These are speed limits that are in effect only during a specified time period. The date range corresponding to the time is indicated as the ***Date/Time Modifier***. Also, there are cases where a different speed is applicable at night. This is indicated with a ***Time Override*** = Dusk to Dawn.

  Rain, Snow: These are speed limits that are in effect only under specific weather conditions. For example, in Germany, speed limits on motorways can be reduced in case of rain.

  Approximate Seasonal Time: These are the "seasonal" situations. For example, in Chicago, Lake Shore Drive changes from 45mph to 40mph during the winter.

  Lane Dependent: These are situations where a road has different speed limits per lane. No ***Special Speed Limit*** is published for this ***Dependent Speed Type***. The ***From/Toward Reference Speed Limit*** value is the predominant speed allowed.

- **Speed Bumps.** This indicates that for a stretch of road, speed bumps are present or chicanes are present that effectively reduce the posted speed. A ***Special Speed Limit*** value is not indicated for ***Speed Bumps***.

  The following situations are not considered speed bumps/chicanes:

  rumble strips (commonly rows of raised reflectors used to warn drivers when approaching a speed change or other situation).

  cattle grids.

chicanes that do not effectively slow down the traffic.

- For variable message signs that indicate a reduced speed due to conditions, a ***Special Speed Situation*** is not included.

- ***Special Speed Type = Speed Bumps*** does not have a ***Special Speed Limit*** nor a ***Dependent Speed Type*** published.

- ***Special Speed Type = Advisory*** always has a ***Special Speed Limit*** published. ***Dependent Speed Type*** is not published for advisory.

- ***Special Speed Type = Dependent*** always has a ***Special Speed Limit*** and a ***Dependent Speed Type*** published except when the ***Dependent Speed Type*** = Lane Dependent.

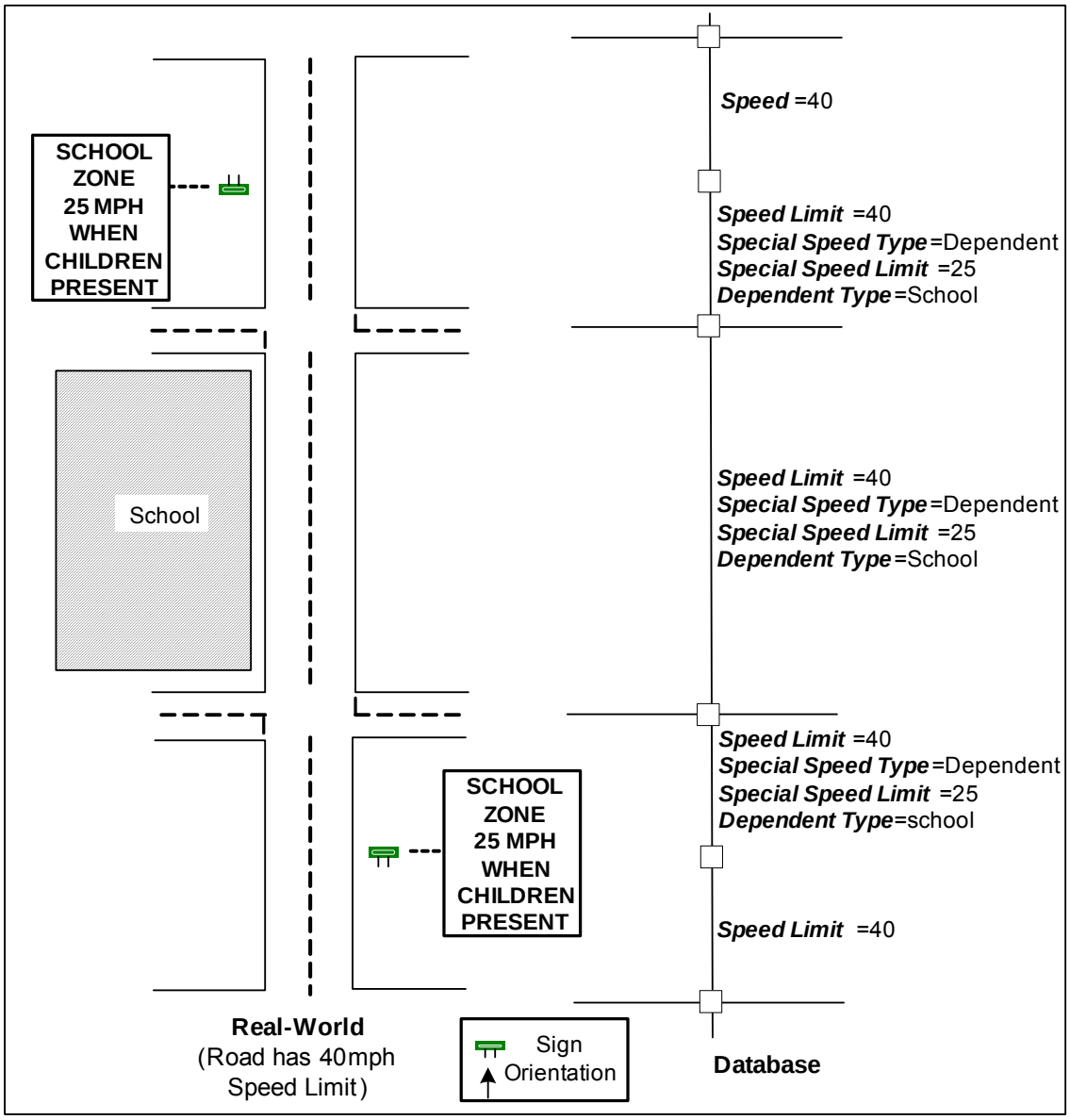


Figure 6-93

6.2.291 Special Traffic Figure

Definition A ***Special Traffic Figure*** (***STF***) is a somewhat circular intersection which controls the traffic flow from incoming roads.

Value Y - Special Traffic Figure

N - Not Special Traffic Figure

Length 1

Type Boolean

Usage The coding of a ***Special Traffic Figure*** allows for guidance that uses the word “exit” instead of “turn.” “Exit” is preferable because the ***Special Traffic Figure*** feels similar to a roundabout with regard to driving through it.

Specification • A ***STF*** occurs when an intersection looks similar to a roundabout, but it:

- forms a closed loop, but one part of the loop contains a different Direction of Travel than the rest of the loop, as shown in *Figure 6-94* below:

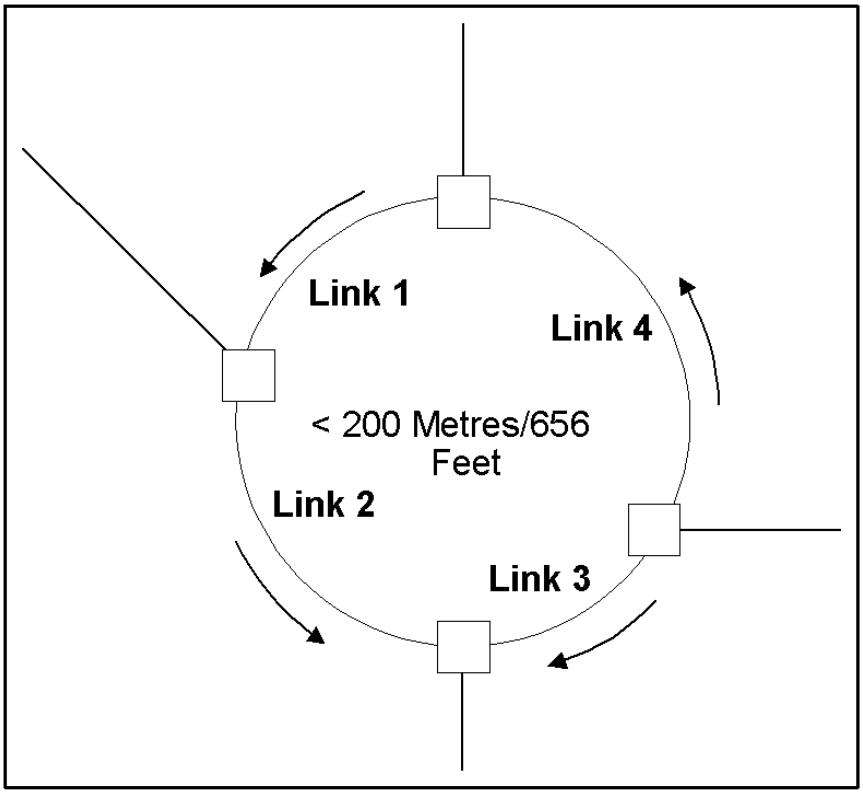


Figure 6-94

Link 1 – Receives ***STF*** = Y

Link 2 – Receives ***STF*** = Y

Link 3 – Receives ***Intersection Internal***

Link 4 – Receives ***STF*** = Y

- forms a closed loop but allows for crossings at grade within the loop, as shown in *Figure 6-95* below:

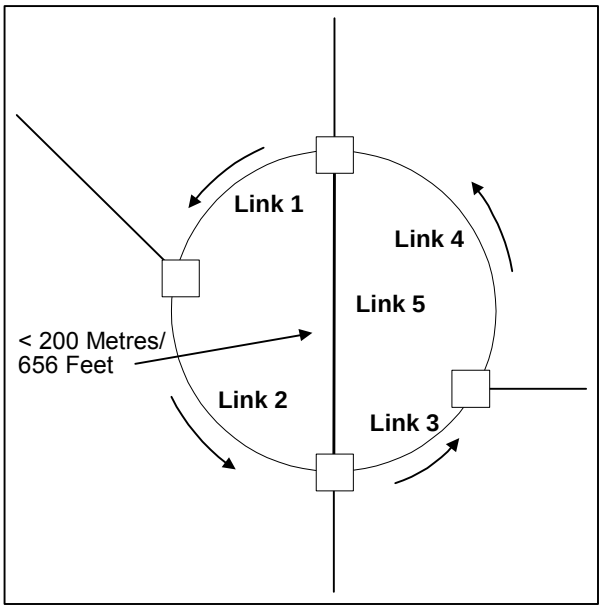


Figure 6-95

Link 1 – Receives ***STF*** = Y

Link 2 – Receives ***STF*** = Y

Link 3 – Receives ***STF*** = Y

Link 4 – Receives ***STF*** = Y

Link 5 – Receives ***Intersection Internal*** = Y

- forms a closed loop, but a road intersects from the inside, and is only connected at grade at one end, as shown in *Figure 6-96* below.

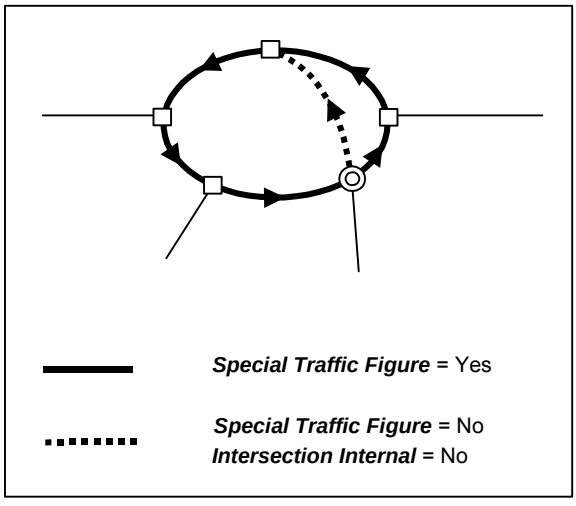


Figure 6-96

- is not perceived as a roundabout due to its shape, as shown in *Figure 6-97*. An example of this situation is “Place de la Concorde” in Paris.

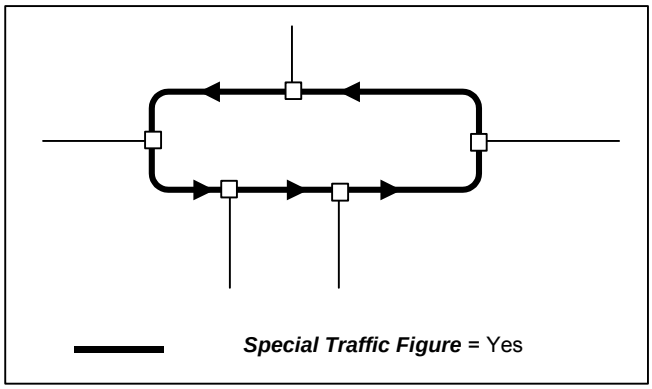


Figure 6-97

- For non-navigable links, ***Special Traffic Figure*** is published as N.

6.2.292 Speed Category

Definition ***Speed Category*** classifies the general speed trend of a road based on posted or legal speed and is provided to enhance route calculation and the timing of route guidance. ***Speed Category*** values represent the combination of several factors besides legal speed limit (e.g., physical restrictions or access characteristics). Therefore ***Speed Category*** values can differ from ***Speed Limit*** values, which represent the legal speed limit only.

Value (space) - Not Applicable

1 - > 130 KPH > 80 MPH

2 - 101-130 KPH 65-80 MPH

3 - 91-100 KPH 55-64 MPH

4 -71-90 KPH 41-54 MPH

5 - 51-70 KPH 31-40 MPH

6 - 31-50 KPH 21-30 MPH

7 - 11-30 KPH 6-20 MPH

8 - < 11 KPH < 6 MPH

Length 1

Type Text

Usage ***Speed Category*** may be used to estimate link traversal times, to prioritise link selection during route calculation, and to calculate timing of the route guidance.

Specification

- A value is applied to all navigable links based on the posted speed limit. ***Speed Category*** is generally applied from road intersection to road intersection to reflect the overall speed trend of a road.

  Note: ***Speed Category*** values can differ from ***Speed Limit*** values, which are applied on a link-by-link basis.

- Posted speed limits that are not full time are not coded. For example, a road with 40 mph speed limit has a zone where, for one link, the posted speed limit is 25 mph during specific hours. In this case, ***Speed Category*** = 5 is applied to all links to reflect the overall trend of the road.

- ***Speed Category*** = Not Applicable is applied to non-navigable links.

- If the posted speed limit is different for the two directions on a bi-directional road, then the lower speed limit is used to determine Speed Category.

- On roads that have physical restrictions such as speed bumps or chicanes, the ***Speed Category*** can be lower than the legal speed limit.

- ***Speed Category*** is applied as follows:
  - ***Speed Category*** = 7 to Ferry Routes.
  - ***Speed Category*** = 7 to POI Access and Rest Area roads.
  - ***Speed Category*** = 8 to Walkways.
  - ***Speed Category*** = 8 to Pedestrian Zones.
  - ***Speed Category*** = Not Applicable to non-navigable links.
  - The ***Speed Category*** for turn lanes and ***Intersection Internal*** links can reflect any of the Speed Cat values of the roads they touch.

6.2.293 Stale Name

Definition ***Stale Name*** identifies old names that are still in use.

Value Y - Stale Name

N - Not a Stale Name

Length 1

Type Boolean

Usage ***Stale Names*** are included in the database to assist in destination selection but should never be used during route guidance or map display.

Specification
- A Stale Name is always Explicatable = N.
- Applies to navigable linear features only.

6.2.294 Start Time

Definition Identifies the start time for the time period in which the condition is in effect.

Value HHMM

(Range: 0000 to 2359)

Length 4

Type HM

Usage This enables dynamic route calculation. If the system does not consider this entire record it is either ignoring possible routes or using illegal ones during the specified times.

Specification
- If the condition applies all day, then the ***Start Time*** = 0000 and the ***End Time*** = 2359.

6.2.295 Straight On

Definition ***Straight On*** identifies signs added solely to provide additional guidance information for the road ahead.

Value Y - Sign information is a Straight On

N - Sign information is not a Straight On

Length 1

Type Text

Usage ***Straight On*** can be used to differentiate Straight On Signs from Exit Signs.

Specification
- ***Straight On*** is included only at decision points where an exit sign is also present. Straight On signs have the ***Straight On*** attribute set to “Y”.
- Straight On signs will have the ***Straight On*** set to “N” when one of the following is applicable:
  - A special explication situation exists

- A highway name changes or a different name becomes the preferred name, but there is manoeuvre required
- A motorway splits into two or more motorways

- ***Straight On*** is applied to signs with ***Text Type*** = T (Towards an eventual destination link) only.

6.2.296 Straight-on-Sign

Definition ***Straight-on-Sign*** identifies signs added solely to provide additional guidance information for the road ahead.

Value Y - Sign information is a Straight-on-Sign

N - Sign information is not a Straight-on-Sign

Note: Default value is “N” (field can not be Null).

Length 1

Type Text

Usage ***Straight-on-Sign*** can be used to differentiate Straight-on Signs from Exit Signs.

Specification

- A Straight-on Sign has the ***Straight-on-Sign*** attribute set to “Y” when one of the following is applicable:
  - The straight on sign is located at a decision point where an exit sign is also present.
  - The sign contains information pertinent to continuing on the highway.
- A Straight-on Sign has the ***Straight-on-Sign*** set to “N” when one of the following is applicable:
  - A special explication situation exists
  - A highway name changes or a different name becomes the preferred name, but there is manoeuvre required
  - A motorway splits into two or more motorways
- ***Straight-on-Sign*** is applied to signs with ***Text Type*** = T (Towards an eventual destination link) only.

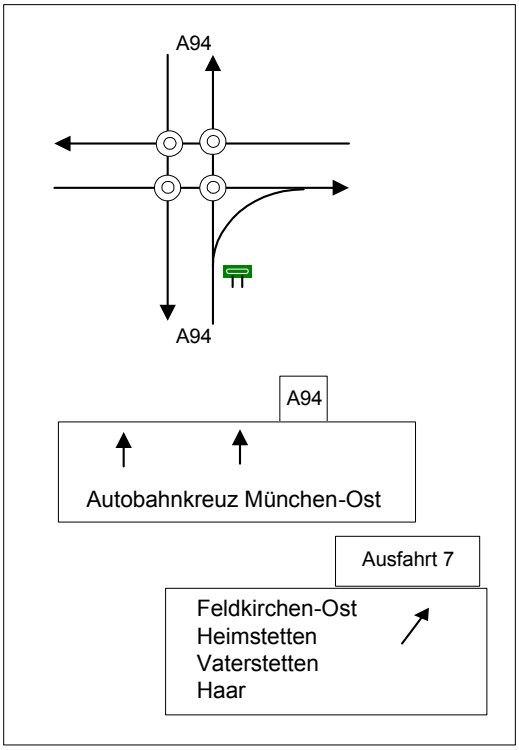


Figure 6-98

- The sign text on the exit ramp information for *Figure 6-98* is represented as follows:
  - Exit Ramp information (*Figure 6-99*):

SEQ_NUM	1	2	3	4
EXIT_NUM	7	7	7	7
BR_RTEID				
BR_RTEDIR				
SIGN_TXTTP	T	T	T	T
SIGN_TEXT	FELDKIRCHEN -OST	HEIMSTET TEN	VATERSTE TTEN	HAAR
LANG_CODE	GER	GER	GER	GER
TOW_RTEID				

Figure 6-99

- Straight-on-Sign information (*Figure 6-100*):

SEQ_NUM	1
EXIT_NUM	7
BR_RTEID	
BR_RTEDIR	
SIGN_TXTTP	T
SIGN_TEXT	AUTOBAHNKREUZ MÜNCHEN-OST
LANG_CODE	GER
TOW_RTEID	A94

Figure 6-100

6.2.297 Street Name

The Street Name is a combination of ***Feature Name***, ***Street Type***, ***Name Prefix*** and ***Name Suffix***.

6.2.298 Street Name Base

The Street Name Base is equivalent to the ***Feature Name***.

6.2.299 Street Name Language Code

The Street Name Language Code is equivalent to the ***Language Code***.

6.2.300 Street Name Prefix

The Street Name Prefix is equivalent to the ***Name Prefix***.

6.2.301 Street Name Suffix

The Street Name Suffix is equivalent to the ***Name Suffix***.

6.2.302 Street Number

Definition The street number (address) assigned to a Point of Interest.

Value Maximum 10 alphanumeric characters. Hyphens are allowed.

Length 10

Type Text

Usage This data in conjunction with the related attributes and link address information may be used to locate and calculate a coordinate for a POI. This attribute may be used to display POI address to the user.

Specification

- An address for a POI may not be included if one does not exist (such as for a park, park & ride facility, etc.) or is not provided by third party suppliers.
- ***In-Vicinity*** POIs do not carry an Address when located on an unaddressed Inter-Town link.
- When addresses are not present in Inter-Town, POIs in the Inter-Town areas will not have an address.

6.2.303 Street Type

Definition The street type is the local municipality designator for each road, such as “street”, “road”, “strasse”, “stratt”, “via”, “rue de la”.

Value The Street Type field includes abbreviations for English ***Street Types*** used in North America, and full spellings for all other countries/languages. The reason for this difference is that North American English speakers are used to using/seeing street type abbreviations, while in other languages the full spelling is generally used. The North American abbreviations can be found with full spellings in *Section , General Naming Rules*. Knowing the full spellings will help in voice applications.

Length 30

Type Text

Usage The ***Street Type*** should be used for route guidance and destination selection along with the ***Name Prefix***, ***Feature Name***, ***Language Code***, and ***Name Suffix*** that exist for a given feature.

Specification

- A ***Street Type*** is applied for all street names that include a ***Street Type***.
- There are cases where a street name includes two valid NAVTEQ-defined street types. In these cases, the last street type is included in the DNDC. The other street type is included in the ***Feature Name***. Depending on the actual street type contained in the ***Feature Name***, it will be either abbreviated or expanded. If the street type is commonly used, such as St, Ave, Rd, Dr, Ln, Blvd, and Ct, then the abbreviation is used. If it is not a commonly used street type and is logically part of the ***Feature Name***, then the street type is expanded to its complete spelling.

Street Name	Feature Name	Street Type
MAIN ST EXT	MAIN ST	EXT
RED RIDGE RD	RED RIDGE	RD

6.2.304 Street Type After

For additionall information see ***Street Type Before*** and ***Street Type***.

6.2.305 Street Type Attached

Definition Indicates whether the Street Type is attached or separated by a space from the Feature Name.

Value Y - Attached

N - Not Attached

Length 1

Type Boolean

Usage ***Street Type Attached*** can be used to determine the location of the ***Street Type*** for usage in destination selection, map display and route guidance.

Specification For example:

- ***Street Type Attached*** = Y

  Lenbachstrasse

  Obere Seegasse

  Kaiserbergweg

  Konradplatz

- ***Street Type Attached*** = N

  Strada Macario

  Vicolo Macchetta

  Piazza Macelli di Soziglia

  Via Della Macina

6.2.306 Street Type Before

Definition Indicates whether the Street Type occurs before or after the Feature Name. For additional information see ***Street Type***.

Value Y - Before

N - Not Before

Length 1

Type Boolean

Usage ***Street Type Before*** can be used to determine the placement of the ***Street Type*** for usage in destination selection, map display and route guidance.

Specification For example:

- ***Street Type Before*** = Y

  Chemin du Racourci

  Rue Randolphe-Duguay

  Rue de la Baie

  Avenue Balfour

- ***Street Type Before*** = N

  Daalsweg

  Daelwijcklaan

  Laburnam Road

  Ladycroft Walk

6.2.307 Supplemental Sign Applicable Vehicles

Definition ***Supplemental Sign Applicable Vehicles*** indicates additional sign shields which are displayed below the Traffic Sign indicating to which vehicle(s) the Traffic Sign is applicable.

Value 1 – Truck

2 – Truck over 3.5 tons, trailers, and semi-trailers

3 – Bus

4 – Passenger Vehicle with trailer

5 – Motor Home

6 – Motorcycle

Specification

- Supplemental signs displaying specific vehicles indicate to which specific vehicle(s) the ***Traffic Sign*** is applicable. See *Figure 6-101* below for an example.

Figure 6-101

- The condition Modifier Type 25 - ***Supplemental Sign Applicable Vehicles*** can have one or more of the following values applied (see *Figure 6-102* below).

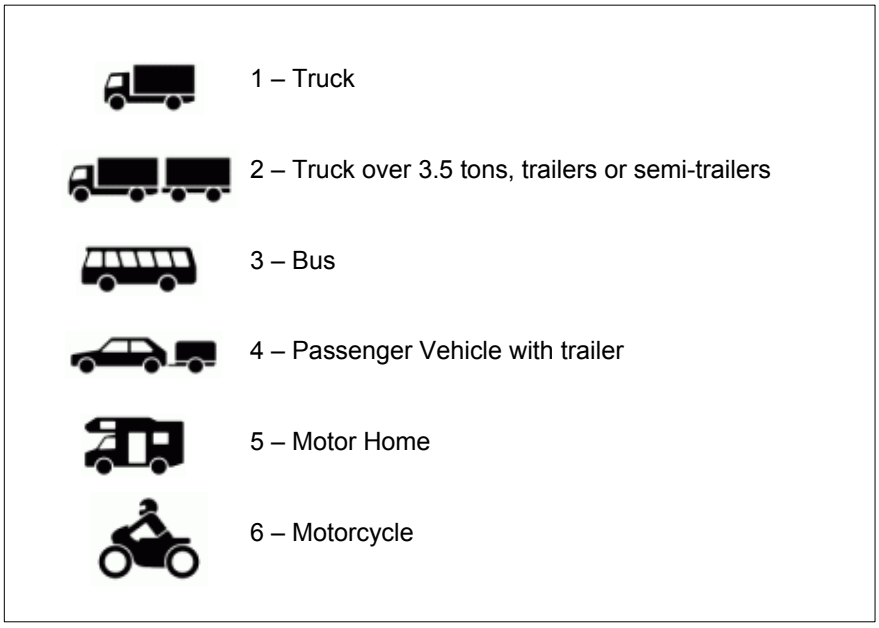


Figure 6-102

6.2.308 Supplemental Sign Duration

Definition ***Supplemental Sign Duration*** indicates additional sign shields which are displayed below the Traffic Sign indicating the duration of the warning.

Value Text (maximum 10 characters)

Usage The supplemental sign duration can be used for map display or to indicate the duration of the warning in the driver alert messaging.

Specification

- Supplemental signs indicating the duration are typically showing the distance information with arrows on either side of the distance information. See *Figure 6-103* for an example.

Figure 6-103

- The distance information for the Modifier Type 23 - ***Supplemental Sign Duration*** will be published including the measurement indication. The supplemental sign text for duration will be represented as spelled on the sign, excluding spaces. The example above would be represented as 2400m.

6.2.309 Supplemental Sign Pre-Warning

Definition ***Supplemental Sign Pre-Warning i***ndicates additional sign shields which are displayed below the Traffic Sign indicating an upcoming warning or regulation. These signs are only included when no additional Traffic Sign is present at the actual start of the warning or regulation.

Specification

- Traffic Signs with supplemental signs indicating the distance to an upcoming warning or regulation are not included in case an additional ***Traffic Sign*** is present at the actual start of the warning. In case no ***Traffic Sign*** is present at the actual start of the warning, then the Traffic Sign with the supplemental sign indicating the distance to the upcoming warning or regulation is included. These types of supplemental signs typically show the distance information without the arrows on either side of the distance information. See *Figure 6-104* for an example.

Figure 6-104

- The distance information in the condition Modifier Type 24 - ***Supplemental Sign Pre-Warning*** will be published including the measurement indication. The supplemental sign text for pre-warning will be represented as spelled on the sign, excluding spaces. The example above would be represented as 400m.

6.2.310 Supplemental Sign Validity Time

Definition ***Supplemental Sign Validity Time*** indicates that an additional sign shields exists, displayed below the Traffic Sign, indicating a specific time(s) at which the Traffic Sign is applicable. Example: No overtaking for Trucks from 8:30 till 18:00 hours.

Value Text (maximum 100 characters)

Specification

- Supplemental signs displaying validity time indicate a specific time at which the ***Traffic Sign*** is applicable. See *Figure 6-105* below for an example.

Figure 6-105

- The time period in the condition attribute ***Supplemental Sign Validity Time*** will be published as spelled on the sign, including hour indication,

dashes etc. The minimum amount of spaces will be used.Example: The representation of the Supplemental sign in *Figure 6-105* is: 8:30-18h

Note: In case no separator is present between the hour and the minutes, then the separator ":" will be used. Example: Start time 830 in the *Figure 6-105* above would be represented as 8:30.

6.2.311 Synonym

Definition

- The synonym is an alternative (additional) name for a feature in a Language that is official within a given administrative area.

Rules

- When appropriate, synonyms are applied to a POI.
- Commonly used names for airports are entered as a synonym name for the airport. For example:

  In Los Angeles:

  official name: Los Angeles International Airport

  synonym: LAX

  In Milan:

  official name: Aeroporto Linate

  synonym: Aeroporto Forlanini

- See ***POI Name*** for specific information regarding synonyms applied to Airport POIs.

6.2.312 SIF+ Standard Creation Date

Definition Identifies the date the NAVSTREETS source data file format (SIF+) was created.

Value yymmdd

yy = year (00-99)

mm = month (01-12)

dd = day (01-31)

Length 6

Type Text

6.2.313 SIF+ Standard Creation Time

Definition Identifies the time the NAVSTREETS source data file format (SIF+) file was created.

Value hh:mm:ss

hh = hour (00-23)

mm = minute (00-59)

ss = second (00-59)

Length 8

Type Text

6.2.314 Through Route

Definition The ***Through Route*** condition represents the links indicating the continuation of the main road through an intersection.

Condition Type 14

Length 5

Condition Modifier None

Usage ***Through Route*** can be used in guidance messaging to either give no guidance when following the main road or to give specific guidance like "turn left to follow the main road", for example, when driving from A to B in *Figure 6-106*.

Specification ***Through Route*** conditions are applied to two contiguous links as origin and destination. The origin is the link prior to the road split and the destination is the link reflecting the continuation. See *Figure 6-106*, link A (origin) and B (destination).

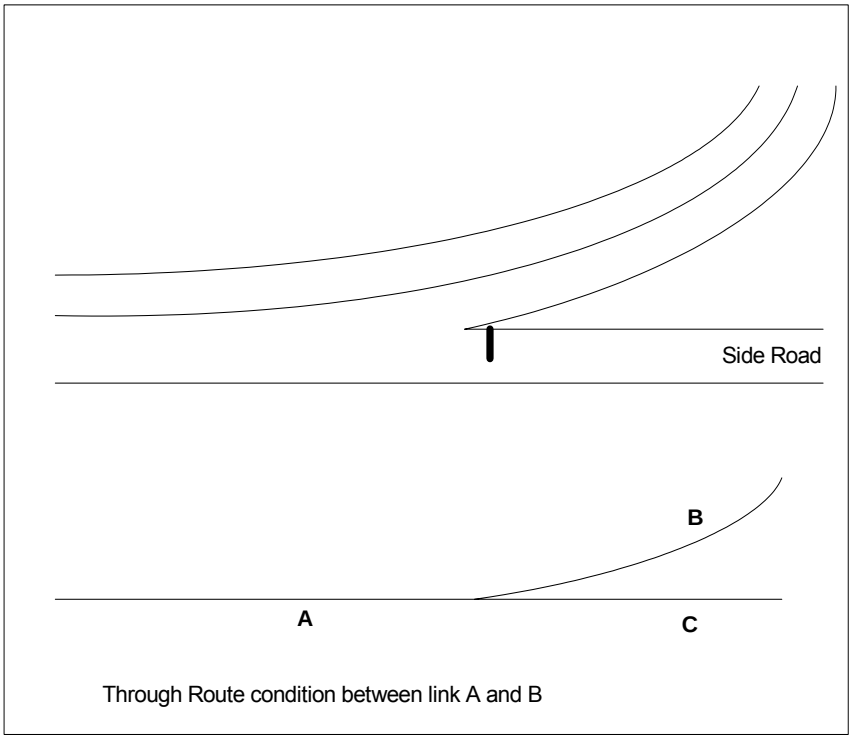


Figure 6-106

- Depending on the road marking (see *Figure 6-106*) or sign (see *Figure 6-107*) in each direction, the ***Through Route*** condition can exist in only one direction or in both directions.

  Note: The Through Route condition will never be applied against the direction of travel.

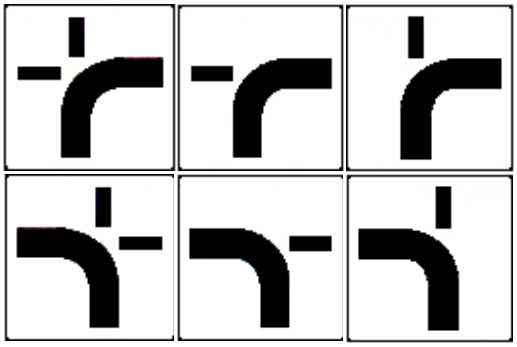


Figure 6-107

- Through Route conditions can not have Access Characteristics nor Date/ Time Modifier information set.
- Through Route conditions are applied to the minimum number of links required to uniquely identify the continuation of the road within an intersection. See *Figure 6-108*.

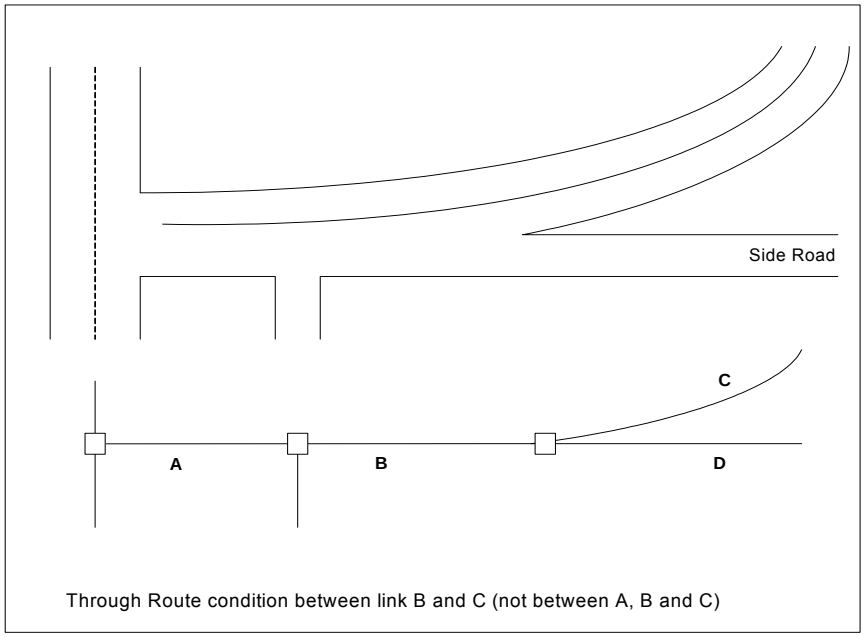


Figure 6-108

- ***Through Route*** conditions only exist on roads that are open to ***Automobiles*** = Y.
- Nodes are not added to limit the extent of the ***Through Route*** condition.
- ***Through Route*** conditions are not coded on ***Controlled Access*** = Y roads.

6.2.315 To Lanes

The To Lanes is equivalent to the ***From/To Number of lanes***.

6.2.316 Tollway

Definition This attribute identifies a link for which a fee must be paid to use the road.

Value Y - Tollway

N - Not a Tollway

Length 1

Type Boolean

Usage ***Tollway*** identifies roads that require payments for traversal. This attribute's intended uses are display and map publishing purposes. This attribute used in conjunction with ***Toll Booth*** condition may be used for toll avoidance routing.

Specification

- ***Tollway*** = Y is applied to links that require a fee for traversal. This does not include bridges and tunnels that require payment for access. ***Tollway*** = Y is applied to ***Ramp*** = Y links, when the links connect two tollways.
- For non-navigable links, ***Tollway*** is published as N.

6.2.317 Toward Route ID

Definition Specifies the name of a route beyond where the ramp system ends.

Value

Length 20

Type Text

Usage ***Toward Route ID*** can be used for route guidance (both audible and graphical/textual guidance) and map display.

Specification

- See Route Name and Number Representation in the ***Branch Route ID*** specifications for naming rules.
- Some countries contain names that can only be represented in Unicode (e.g. Russia). Name records for ***Toward Route ID*** will be represented in the DNDC with ***Language Code*** = CYT and are supported by the delivery of a companion External Unicode "look-aside" file. See *Section A.3, External Unicode File Format* for details.

6.2.318 Toward Reference Speed Limit

The Toward Reference Speed Limit is equivalent to the ***From/Toward Speed Limit***.

6.2.319 Traffic Code

Definition RDS-TMC Code: The traffic information identifier for this link. It consists of several parts: ABCCDEEEEE.

PLOC : RDS Problem Locations in database

Value

A	is the one character Direction of Road. This is based on the Direction of Travel on the link. "+" is the direction from the ***From Node***. "-" is the direction towards the ***From Node***.
B	is the one character EBU Country Code. Note: EBU are defined for European Countries. There are no official EBU codes for Canada and the U.S. NAVTEQ has defined "C" for Canada and "1" for the U.S.
CC	is the two digit Location Table number.
D	is the one character RDS direction, where: + is in the positive direction and external to the Problem Location. - is in the negative direction and external to the Problem Location. P is in the positive direction and internal to the Problem Location. N is in the negative direction and internal to the Problem Location.
EEEEE	is the five digit Location Code. This has leading zeros if necessary.

Note: RDS-TMC codes do not exist in South Africa.

Length 10

Type Text

Specification

- For more information see *Appendix H, Rules for European Traffic* and *Appendix I, Rules for North American Traffic*.

6.2.320 Traffic Signal

Definition The ***Traffic Signal*** condition (Condition Type = 16) indicates if a Traffic Signal is present at an intersection. It also indicates the location of the traffic signal (Europe only).

Value 16

Usage The Traffic Signal information can be used for map display. When coverage is extended, Traffic Signal information can be used for improved travel time guidance.

Note: There are several factors that might influence the use case for improved travel time. In case of limited coverage, the improved travel time use case can not be supported. Other factors that might influence the travel time are situations where it is allowed to turn right at a red traffic signal. However, in these situations the driver always needs to yield to other traffic and pedestrians so the impact is minimal. Additionally there are cases where traffic signals are turned off (flashing only) at night or in weekends which might also impact the travel time. These specific situations are not modeled at this time.

Specification

- North America: Traffic Signal conditions are included on all Functional Class = 1, 2, 3 and 4 roads.
- Europe: Traffic Signal conditions are only included for intersections with Extended Lane information applied (non-motorway roads). This includes surface street intersections with complicated lane configurations. At those selected intersections, all directions are coded with the Traffic Signal condition if applicable (see *Figure 6-109*).
- Traffic Signal conditions are applied to one Link as origin and one connected Node as the destination. The origin is the Link prior to the traffic sign location and the destination is the intersection Node affected by the Traffic Signal. See *Figure 6-109*, Link = 2 and Node = B.
- Turn lanes not affected by a traffic signal will have no Traffic Signal condition applied. See *Figure 6-109*.

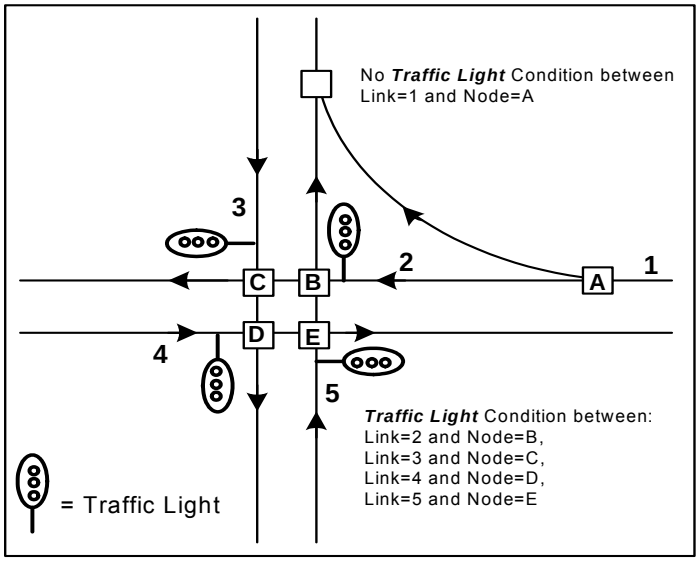


Figure 6-109

- Only Traffic Signals directly affecting the intersection are included. Traffic signals prior to the intersection, indicating an upcoming Traffic Signal intersection, are not included.
- The Traffic Signal condition does not indicate which lanes are affected by the Traffic Signal. The condition does not indicate the direction arrows on the Traffic Signal either.
- Traffic Signal Conditions are not applied in the following situations:
  - Traffic Signals used for protected left turns. See *Figure 6-110*.
  - Crosswalk only lights.
  - Metering lights - lights that control the traffic flow when entering freeways.
  - Signal lights along roads dedicated to buses.

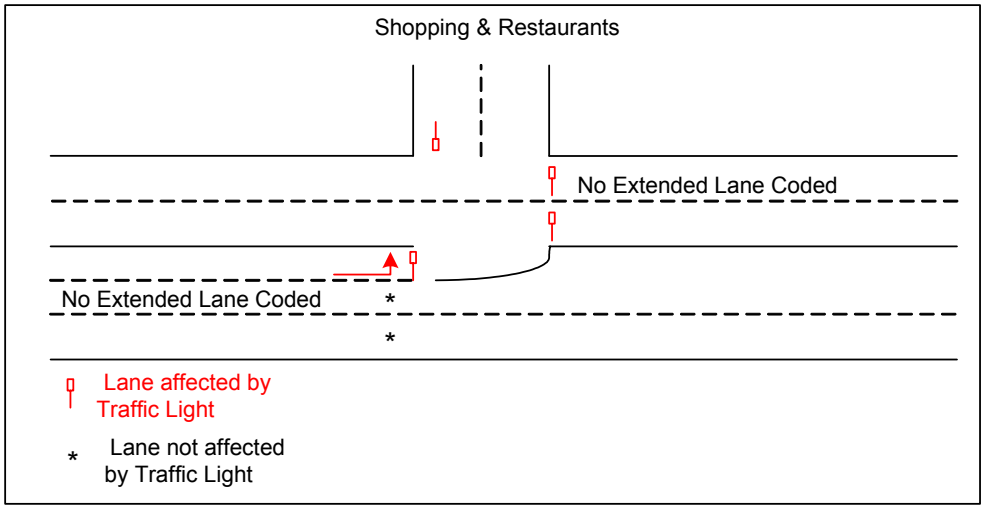


Figure 6-110

- Europe only: In case multiple Traffic Signals exist at the same location, then multiple Traffic Signal conditions are applied, one for each individual Traffic Signal. See *Figure 6-111*.

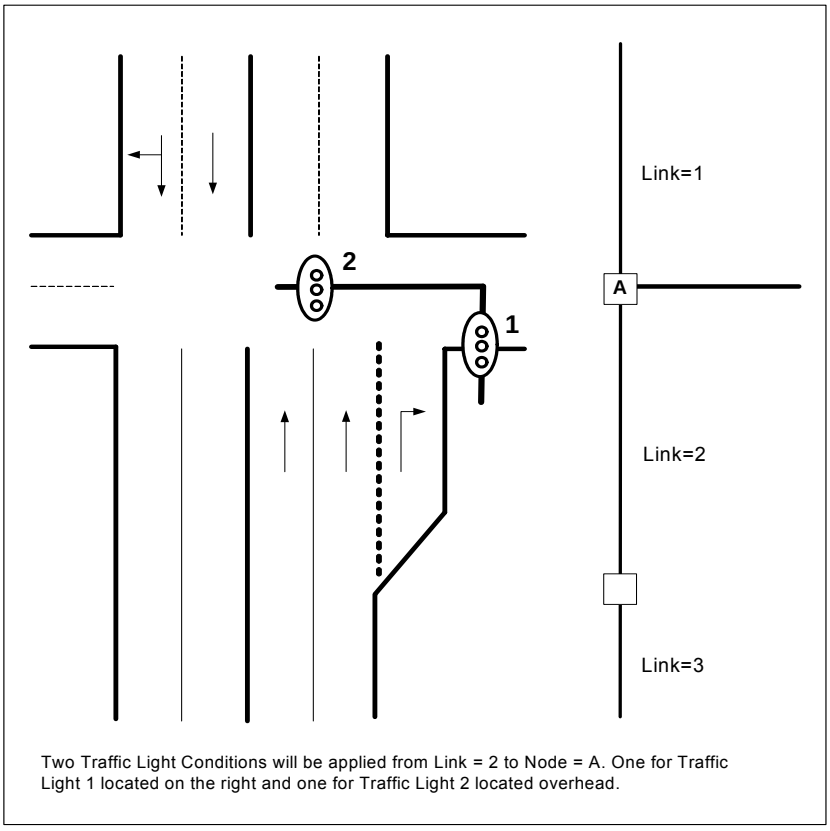


Figure 6-111

6.2.321 Traffic Sign

Definition The ***Traffic Sign*** is a condition indicating the intersection node affected by the Traffic Sign, the type of sign, and the sign category.

Length 5

Usage The ***Traffic Sign*** condition can be used for map display and for generating specific driver alert messages.

Specification

- The Traffic Sign condition is only included where a physical sign is present in reality. As a result, additional Nodes can be included to correctly place the Traffic Sign.
- Traffic Signs are included with an accuracy of 50 metres.
- The Traffic Sign condition will only be included for the following type of Traffic Signs (see *Figure 6-112* for examples):
  - Start and end of No Overtaking
  - Start of Protected Overtaking (extra lane left or right side)
  - End of Protected Overtaking
  - Lane Merge (Left, Right or center)
  - Railway Crossing (Protected or Unprotected)
  - Road Narrows
  - Curve Warning (Left Curve, Winding Road starting Left, Right Curve, Winding Road starting Right)
  - Start and end of No Overtaking for Trucks
  - Steep Hill (Upwards, Downwards)
  - Lateral Wind

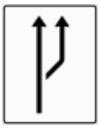
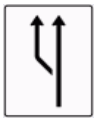
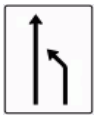
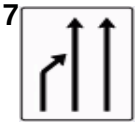
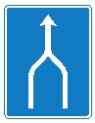
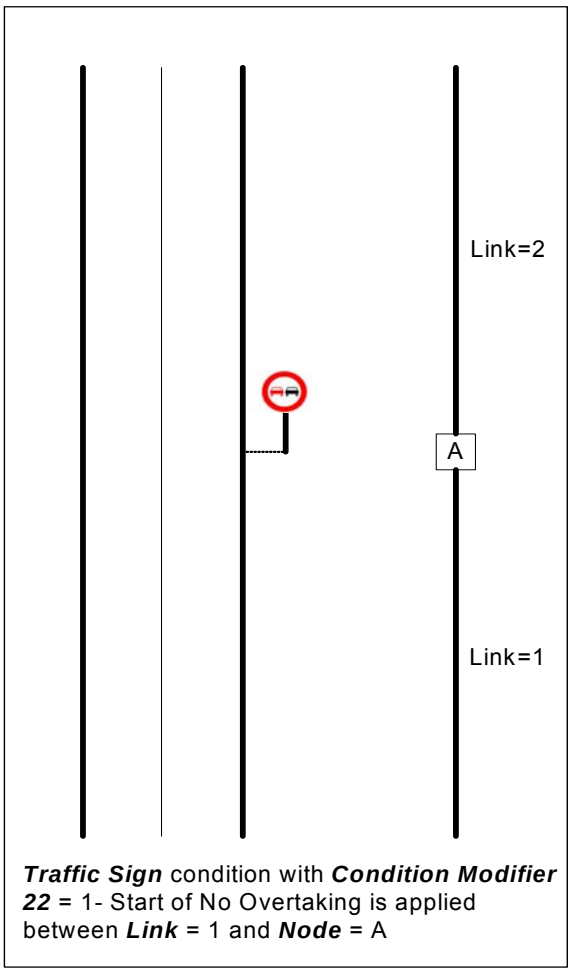
1 	Start of No Overtaking	2 	End of No Overtaking
3 	Protected Overtaking – extra lane for 2400 meters	4 	Protected Overtaking – extra lane on the right
5 	Protected Overtaking – extra lane on the left	6 	Lane Merge Right
7 	7A. Lane Merge Left (End of Protected Overtaking)	7 	7B. Lane Merge Left
8 	Lane Merge Center	9 	Protected Railway Crossing with barriers
10 	Unprotected Railway Crossing without barriers	11 	Road Narrows
12 	Curve Left	13 	Curve Right
14 	Winding Road starting Left	15 	Winding Road starting Right
16 	Start of No Overtaking Trucks	17 	End of No Overtaking Trucks
18 	Steep Hill Upwards	19 	Steep Hill Downwards
21 	Lateral Wind		

Figure 6-112

- ***Traffic Sign*** conditions are applied to one Link as origin and one connected Node as the destination. The origin is the Link prior to the ***Traffic Sign*** location and the destination is the Node affected by the ***Traffic Sign***. See *Figure 6-113*.



Traffic Sign condition with ***Condition Modifier 22*** = 1- Start of No Overtaking is applied between ***Link*** = 1 and ***Node*** = A

Figure 6-113

- ***Traffic Signs*** are defined in relation to the driving direction. Therefore, different ***Traffic Signs*** may be included per driving direction.
- ***Traffic Signs*** indicating an upcoming warning are not included unless no additional Traffic Sign is present at the start of the warning. These types of signs typically include a supplemental sign indicating the distance to the point where the actual warning starts. In case an additional ***Traffic Sign*** is present at the actual start of the warning, then the ***Traffic Sign*** indicating an upcoming warning is not included.
- The ***Access Characteristics*** of the ***Traffic Sign*** condition are set to Y for all vehicle types.

- ***Date/Time Modifier*** information is not published for ***Traffic Sign*** conditions.

6.2.322 Traffic Sign Category

Definition ***Traffic Sign Category*** identifies the main sign category to which the sign belongs to.

Value 1 – Regulatory Sign

2 – Informative Sign

3 – Warning Sign

Specification

- The ***Traffic Sign*** condition is published with Condition Modifier 28 equal to one of the following:
  - ***Traffic Sign Category*** = 1 (Regulatory Sign) is applied when the Traffic Sign is indicating a regulation. See *Table 6-16* for Traffic Sign Types defined as Regulatory Signs.

Value	Description	Regulatory	Informative	Warning
1	Start of No Overtaking	X		
2	End of No Overtaking	X		
3	Protected Overtaking - extra lane		X	
4	Protected Overtaking - extra lane right side		X	
5	Protected Overtaking - extra lane left side		X	
6	Lane Merge Right			X
7	Lane Merge Left			X
8	Lane Merge Center			X
9	Railway Crossing Protected			X
10	Railway Crossing Unprotected			X
11	Road Narrows			X
12	Sharp Curve Left			X
13	Sharp Curve Right			X
14	Winding Road starting Left			X
15	Winding Road starting Right			X
16	Start of No Overtaking Trucks	X		X
17	End of No Overtaking Trucks	X		X

Value	Description	Regulatory	Informative	Warning
18	Steep Hill Upwards			X
19	Steep Hill Downwards			X
20	Stop Sign	X		
21	Lateral Wind			X

Table 6-16

- ***Traffic Sign Category*** = 2 (Informative Sign) is applied when the ***Traffic Sign*** indicates certain information to alert the driver. See *Table 6-16* for Traffic Sign Types defined as Informative Signs.
- ***Traffic Sign Category***= 3 (Warning Sign) is applied when the Traffic Sign is indicating a warning. See *Table 6-16* for Traffic Sign Types defined as Warning Signs.

6.2.323 Traffic Sign Type

Definition The ***Traffic Sign Type*** identifies the type of warning sign.

Value

1 – Start of No Overtaking

2 – End of No Overtaking

3 – Protected Overtaking – extra lane

4 – Protected Overtaking – extra lane right side

5 – Protected Overtaking – extra lane left side

6 – Lane Merge Right

7 – Lane Merge Left

8 – Lane Merge Center

9 – Railway Crossing Protected

10 – Railway Crossing Unprotected

11 – Road Narrows

12 – Sharp Curve Left

13 – Sharp Curve Right

14 – Winding Road starting Left

15 – Winding Road starting Right

16 – Start of No Overtaking Trucks

17 – End of No Overtaking Trucks

18 – Steep Hill Upwards

19 – Steep Hill Downwards

20 – Stop Sign

21 – Lateral Wind

Usage

The ***Traffic Sign Type*** can be used to give specific driver alert messaging using the sign type. ***Traffic Sign Type*** can also be used to display the ***Traffic Sign***.

Specification

The ***Traffic Sign*** condition is published with Condition Modifier 22 equal to one of the following:

- ***Traffic Sign Type*** = 1 (Start of No Overtaking) is applied when overtaking is prohibited for all vehicles.
- ***Traffic Sign Type*** = 2 (End of No Overtaking) is applied when the No Overtaking restriction ends.
- ***Traffic Sign Type*** = 3 (Protected Overtaking - extra lane) is applied when an extra lane is forming on the right or left side to support safe overtaking. It is not indicated on the sign on which side the extra lane is forming.
- ***Traffic Sign Type*** = 4 (Protected Overtaking - extra lane right side) is applied when an extra lane is forming on the right side to support safe overtaking.
- ***Traffic Sign Type*** = 5 (Protected Overtaking - extra lane left side) is applied when an extra lane is forming on the left side to support safe overtaking. T
- ***Traffic Sign Type*** = 6 (Lane Merge Right) is applied when an extra lane ends and the lane merges on the right side. Lane Merge Right is also applied when two motorways merge together and one lane coming in from the right side ends.

  Note: Lane Merge Right is also used to indicate the end of a Protected Overtaking zone.

- ***Traffic Sign Type*** = 7 (Lane Merge Left) is applied when an extra lane ends and the lane merges on the left side. Lane Merge Left is also applied when two motorways merge together and one lane coming in from the left side ends.

  Note: Lane Merge Left is also used to indicate the end of a Protected Overtaking zone.

- ***Traffic Sign Type*** = 8 (Lane Merge Center) is applied when two lanes merge into one lane.

- ***Traffic Sign Type*** = 9 (Railway Crossing Protected) is applied when a sign is present indicating a protected railway crossing with barriers.
- ***Traffic Sign Type*** = 10 (Railway Crossing Unprotected) is applied when a sign is present indicating an unprotected railway crossing without barriers.

  Note: Unprotected railway crossings can just have a St. Andrews Cross (see Figure 3 below) or other type of indication (country specific) at the actual railway crossing and no sign indicating a railway crossing prior to the crossing. The signs at the actual railway crossing are not considered for Traffic Sign implementation. However, all railway crossings with and without a Railway Crossing sign prior to the crossing will be coded with a new condition Railway Crossing with attribute Railway Crossing Type = 1 - Protected or 2 - Unprotected. See *Railway Crossing Type* for details.

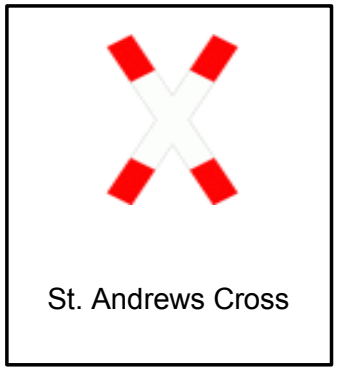


Figure 6-114

- ***Traffic Sign Type*** = 11 (Road Narrows) is applied when a sign is present indicating that a road is narrowing. This can be from both sides or from the left or right side only.
- ***Traffic Sign Type*** = 12 (Sharp Curve Left) is applied when a sign is present indicating a sharp curve to the left.
- ***Traffic Sign Type*** = 13 (Sharp Curve Right) is applied when a sign is present indicating a sharp curve to the right.
- ***Traffic Sign Type*** = 14 (Winding Road starting Left) is applied when a sign is present indicating a winding road with the first curve starting to the left.
- ***Traffic Sign Type*** = 15 (Winding Road starting Right) is applied when a sign is present indicating a winding road with the first curve starting to the right.

- ***Traffic Sign Type*** = 16 (Start of No Overtaking Trucks) is applied when a sign is present indicating no overtaking for trucks.
- ***Traffic Sign Type*** = 17 (End of No Overtaking Trucks) is applied when the No Overtaking for Trucks restriction ends.
- ***Traffic Sign Type*** = 18 (Steep Hill Upwards) is applied when a sign is present indicating a steep ascent.
- ***Traffic Sign Type*** = 19 (Steep Hill Downwards) is applied when a sign is present indicating a steep descent.
- ***Traffic Sign Type*** = 20 (Stop Sign).
  - Stop Signs will only be included in North America with limited coverage. Therefore, not all stop signs along a particular road may be included.
  - Stop signs can have a different color as defined per country regulations.
  - Also the word “STOP” can be in the country specific language(s).
- ***Traffic Sign Type*** = 21 (Lateral Wind) is applied when a sign is present indicating possible strong cross wind.
- The appearance of the signs listed above can vary depending on the situation in reality. There are also differences in the appearance of signs between countries.

6.2.324 Transit Access Level

Definition The transit access level indicates if access to Public Transit Access POI is above street level, at street level, or underground.

Value 1 - Above Street Level

2 - Below Street Level

3 - At Street Level

Note: This field will be blank for all POIs where Facility Type = 9708.

Usage This attribute can be used for pedestrian route calculation and for map display purposes.

Specification For each Public Transit Access POI, Transit Access Level information is published.

6.2.325 Transit Access Type

Definition The transit access type indicates whether an access point is an entrance and/or an exit.

Value
1 - Entrance only

2 - Exit only

3 - Entrance and Exit

Note: This field will be blank for all POIs where Facility Type = 9708.

Usage This attribute can be used for pedestrian route calculation and for map display purposes.

Specification For each Public Transit Access POI, Transit Access Type information is published.

6.2.326 Transit Access Method

Definition The transit access method provides information about accessing Public Transit Access POIs.

Value
0 - Not Applicable

1 - Stairs

2 - Escalator

3 - Stairs and Escalator

4 - Elevator

5 - Stairs and Elevator

6 - Escalator and Elevator

7 - Stairs and Escalator and Elevator

Note: This field will be blank for all POIs where Facility Type = 9708.

Usage This attribute can be used for pedestrian route calculation and for map display purposes.

Specification
- All abovementioned ways to access a Public Transit Access POI are represented according to reality, i.e., Public Transport Access POIs have information if stairways, escalators, and/or elevators are present.
- If Transit Access Level = 3 (At Street Level) for a Public Transit Access POI then Transit Access Method = 0.

6.2.327 Through Route

Definition The ***Through Route*** condition (Condition Type = 14) represents the links indicating the continuation of the main road through an intersection.

Length 5

Condition Modifier None

Usage ***Through Route*** can be used in guidance messaging to either give no guidance when following the main road or to give specific guidance like "turn left to follow the main road", for example, when driving from A to B in *Figure 6-115*.

Specification ***Through Route*** conditions are applied to two contiguous links as origin and destination. The origin is the link prior to the road split and the destination is the link reflecting the continuation. See *Figure 6-115*, link A (origin) and B (destination).

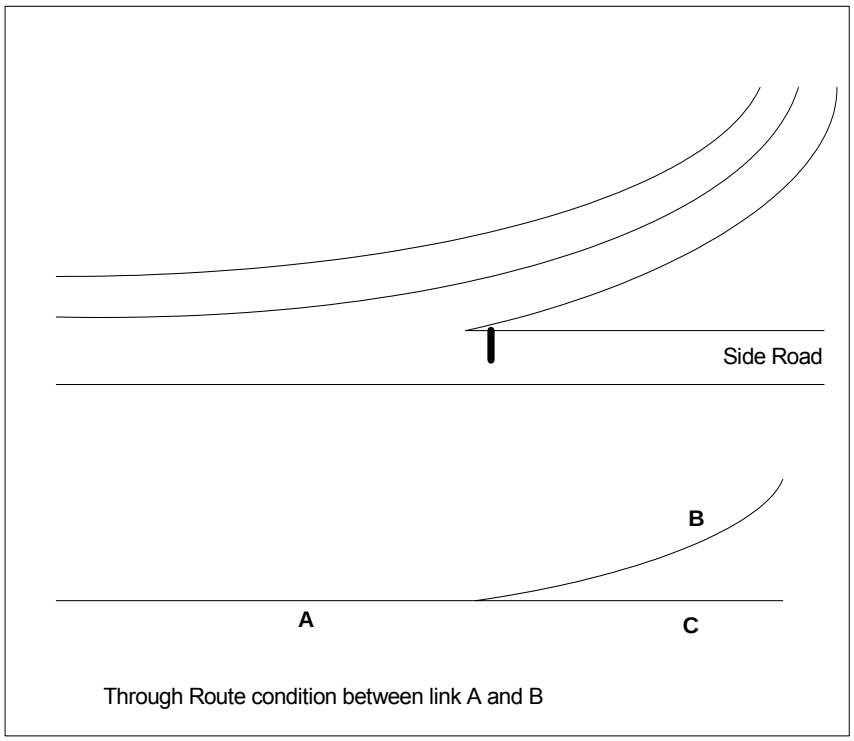


Figure 6-115

- Depending on the road marking (see *Figure 6-115*) or sign (see *Figure 6-116*) in each direction, the ***Through Route*** condition can exist in only one direction or in both directions.

- The Through Route condition will never be applied against the direction of travel.

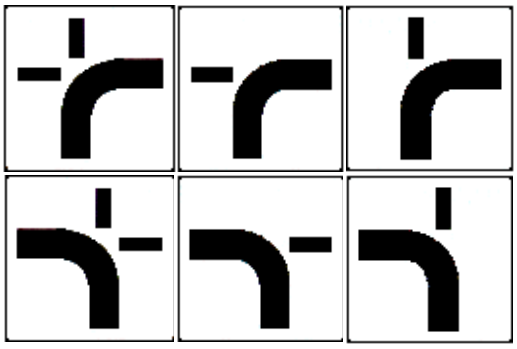


Figure 6-116

- Through Route conditions can not have Access Characteristics nor Date/ Time Modifier information set.
- Through Route conditions are applied to the minimum number of links required to uniquely identify the continuation of the road within an intersection. See *Figure 6-117*.

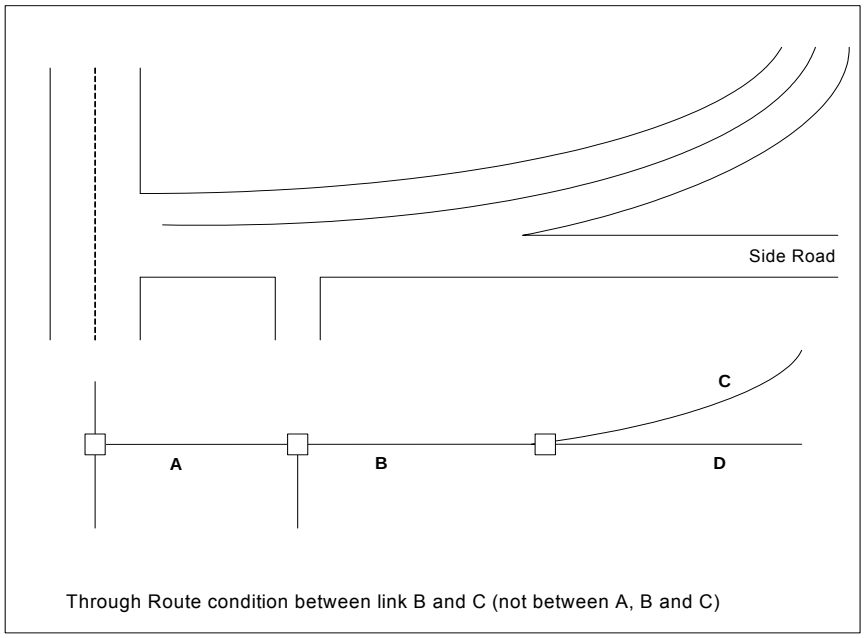


Figure 6-117

- ***Through Route*** conditions only exist on roads that are open to ***Automobiles*** = Y.
- Nodes are not added to limit the extent of the ***Through Route*** condition.

- ***Through Route*** conditions are not coded on ***Controlled Access*** = Y roads.

6.2.328 To Extended Lanes

Definition

To Extended Lanes indicates the total number of lanes in the direction of travel indicated by the attribute.

Note: The value “00” is published if the number of extended lanes is not known.

Value

00-16

Note: Note: NAVTEQ supports up to 16 lanes in each direction of travel.

Length

2

Type

Numeric

Specification

- Positional accuracy is within +/- 50 metres of lane change.
- The following types of lanes are explicitly counted in the lane count:
  - Ramp Transition Lanes (Motorway Deceleration Lanes)
  - Turn Lanes at an intersection
  - Bus/Taxi/Truck lanes
  - High Occupancy Vehicle lanes

Note: NAVTEQ currently publishes the From Number of Lanes and To Number of Lanes attributes but the rules for counting lanes are different. See *Figure 6-118*.

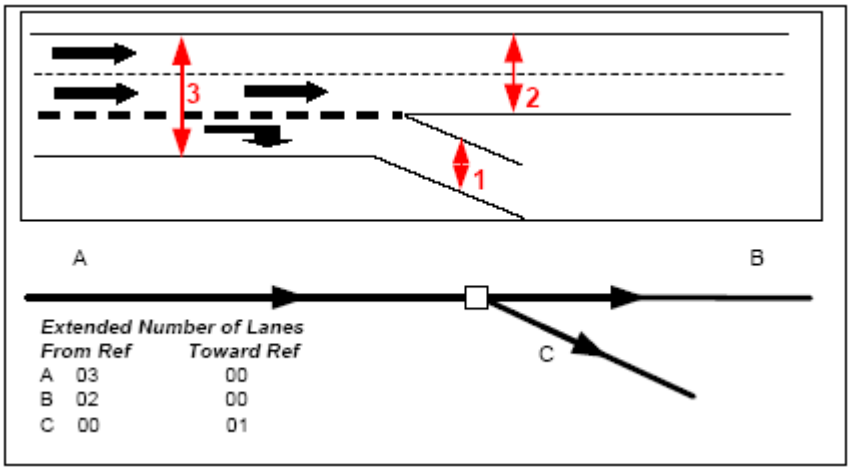


Figure 6-118

6.2.329 Tunnel

Definition ***Tunnel*** is a covered passageway through or under an obstruction.

Value Y - Tunnel

N - Not a Tunnel

Length 1

Type Boolean

Usage This attribute can be used for display or route guidance.

Specification

- ***Tunnel*** = Y is applied when the tunnel is longer than 200 metres/656 feet. Smaller tunnels may be included where significant.
- ***Tunnel*** coding is applied to roads and railroads
- When a ***Tunnel*** is on a road that is multiply digitised, the length of the attribute will match on both sides of the road, as shown in *Figure 6-119*.

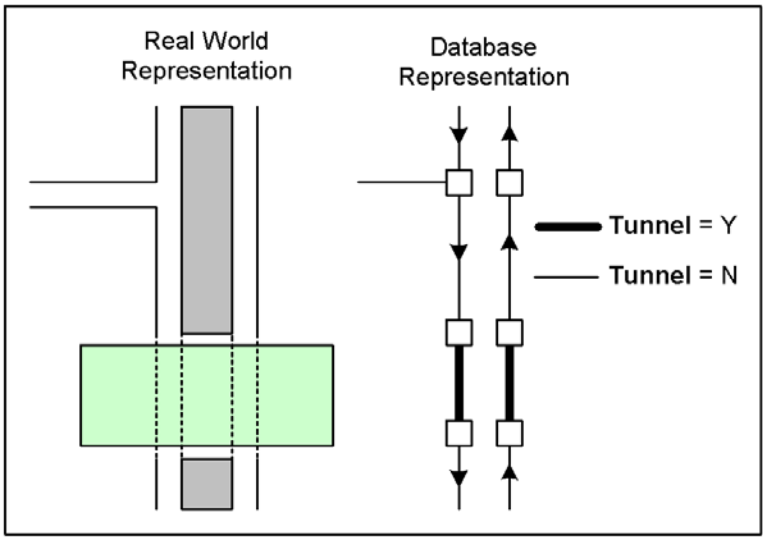


Figure 6-119

For non-navigable links, ***Tunnel*** is published as N.

6.2.330 Undefined Traffic Area

Definition Identifies links inside of an Undefined Traffic Area polygon (Feature Type – 900159), which is a paved area where a car can travel, but there are no legally defined traffic paths.

Value Y - Undefined Traffic Area Link

N - Not a Undefined Traffic Area Link

Length 1

Type Boolean

Related Polygon Undefined Traffic Area Polygon (Feature Type: 900159)

Usage A car is not limited to driving on the ***Undefined Traffic Area*** links. The car can drive in any pattern within the Undefined Traffic Area polygon. NAVTEQ includes generalised paths so that real road segments retain connectivity, but systems should recognise that if the GPS signal is not matching to these links, it does not mean the car is off route. Instead it should wait until the car reaches a real link again before determining its status as on/off route.

Specification

- An Undefined Traffic Area is a paved area where a car can travel, but there are no legally defined traffic paths. See *Figure 6-120.*

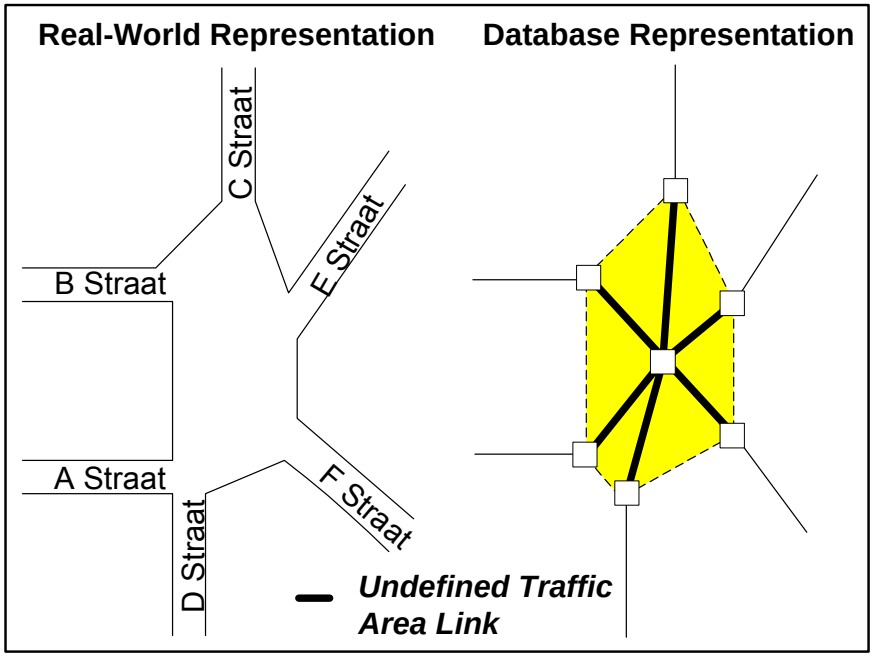


Figure 6-120

- For non-navigable links, ***Undefined Traffic Area Link*** is published as N.

6.2.331 Unit of Measure

Definition Identifies the unit of measure mostly used in that country to describe road and traffic conditions.

Value M -Metric (kilometers and meters)

E - English (miles and feet)

Length 1

Type Text

Usage This attribute can be used to determine which measurement system to use as default in a specific country.

Specification
- If unknown, this attribute is not published.

6.2.332 Urban

Definition This attribute identifies links located within a Built-up Area polygon.

Value Y - Urban

N - Not Urban

Length 1

Type Boolean

Usage This attribute can be used for map display.

Specification
- ***Urban*** = Y is applied to all links inside a Built-Up Area polygon including the Built-Up Area boundary. See *Figure 6-121*. This attribute is applied in Canada and Europe. Urban has specific speed connotations in Europe and Canada. In these areas, commercial maps display Built-Up Areas. In the U.S., speed is not tied to development areas and commercial maps display city boundaries.

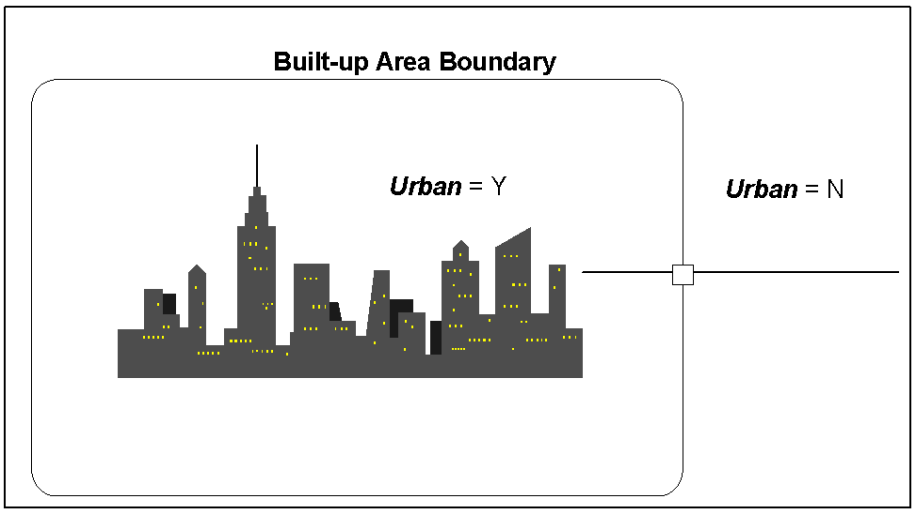


Figure 6-121

6.2.333 Usage Fee Required

Definition

A ***Usage Fee Required*** condition indicates that the link belongs to an area for which an access fee is required. The driver must possess a pre-purchased pass to use the link.

Condition Type

12

Length

5

Specification

- ***Usage Fee Required*** is a link only condition.
- The ***Access Characteristics*** in this record specify the ***Access Characteristics*** to which the toll applies. This can be in combination with the ***Date/Time Modifier*** information in case the toll applies only to a specific time.
- Usage Fee Required conditions are only applied in Austria, Czech Republic, Hungary, Slovak Republic, Switzerland, Sweden, and the U.K. Two different reality situations are represented by ***Usage Fee Required*** conditions. See below for further details.
  - UK:

    On February 17, 2003, the city of London began imposing a £5 fee for vehicles entering central London. The fee applies Monday through Friday from 07:00 to 18:30 excluding public holidays. Central London is bounded by the inner ring road (on which there will be no charge). The inner ring road comprises: Marylebone Road, Erston Road, Pentonville Road, City Road, Great Eastern

Street, Commercial Street, Tower Bridge Road, New Kent Road, Kennington Lane, Chelsea Embankment, Cheyne Walk, Edith Grove, Redcliffe Gardens, Earl's Court Road, Grosvenor Road, Park Lane, and Edgware Road.

- Sweden:

  Starting August 1, 2007, Sweden will introduce a Central Toll Area in Stockholm (see *Figure 5-34*). The red circles indicate the location of the cameras that will take a picture of a car's license plate for toll collection. The car owner is responsible for paying the toll charged to their license plate. Payment can be made on-line or at certain grocery or convenient stores.

  Note: The toll is charged Monday to Friday between 06:30 and 18:30 when entering the central area of Stockholm. The fee varies during the day. Certain vehicles do not have to pay (cars registered in other countries, taxis, cars that run on alternative fuel, motorbikes, and some other specified categories).

- Austria, Czech Republic, Hungary, Slovak Republic, and Switzerland:

  Certain roads (typically motorways) within these countries require a pre-purchased pass in order to use the road. A ***Usage Fee Required*** condition indicates that a link is part of such a road.

  For these countries, Links with a ***Usage Fee Required*** condition also have Tollway = Y.

  In the listed countries, ***Usage Fee Required*** conditions are applied to all links that connect two or more roads where a pre-purchased pass is required.

6.2.334 Vanity City

Definition ***Vanity City*** identifies a city that is different from the city where the POI is physically located. For example, Charles-de-Gaulle airport is located in Roissy-en-France, not in Paris. It is common, however, for people to think the airport is in Paris.

Attribute Modifier Value Area ID Value - Area ID index to Area Reference Record for the Vanity City.

Usage ***Vanity City*** allows identification and selection as a destination under the official address, or the city/location name that is normally associated with the POI.

Specification

- ***Vanity City*** is included for the following POI categories when applicable.

- Airport
- Amusement Park
- Auto Dealerships
- Convention/ Exhibition Centre
- Ferry Terminal
- Higher Education
- Historical Monument
- Hotel (when associated with an airport)
- Marina
- Motorcycle Dealerships
- Named Place
- Parking Garage/House (when associated with an airport)
- Parking Lot (when associated with an airport)
- Performing Arts
- Rental Car Agency
- Restaurant (when associated with an airport)
- Sports Complex
- Tourist Attraction

- ***Vanity City*** is included when the POI address does not match the administrative or zone coding applied to the link. For Example:

POI Name	Administrative Area	Vanity City
Disneyland Paris	Coupvray	Paris
Aéroport de Lille-Lesquin	Fretin (rural)	Lesquin and Lille

- Parent/Child Relationships
  - If the parent POI has a ***Vanity City***, then the children will also have the same ***Vanity City***.
  - If the parent POI does not have a ***Vanity City*** (e.g. an airport) and the child POI is in a different administrative area, then the child POI will include a ***Vanity City*** for the parent POI.
  - However if the parent POI does have a ***Vanity City*** and the child POI falls within the administrative area of the ***Vanity City***, then no ***Vanity City*** is indicated for that child POI.

6.2.335 Vanity Name

Definition A ***Vanity Name*** identifies an alternative name (specific to a business, settlement, location, etc.) other than the official street name. The Vanity Name may only apply to one building along the street (e.g. IBM Plaza).

Value Y - Vanity Name

N - Not a Vanity Name

Length 1

Type Boolean

Usage Vanity Names are included in the database to assist in address identification and may be used for route guidance.

Specification

- A ***Vanity Name*** identifies:
  - a named building with an internal address (1 IBM Plaza).
  - a group of buildings along the same street (some Résidences, Cités).
  - a group of buildings along different streets (some Housing Estates).
  - settlements without street names, but with addresses that are numbered sequentially for the settlement, for example, Praglia 1...25 (in the settlement Praglia).
- A ***Vanity Name*** is included when it is well known or when there is no street name available.
- In case of a housing estate, only the name of the estate is entered and not the names of the individual buildings.
- Names with ***Vanity Name*** = Y will also be coded as ***Explicatable*** = Y and ***Name on Road Sign*** = Y if it is the only name present on a link. If there is more than one name present, the Vanity Name is ***Explicatable*** = N and ***Name on Road Sign*** = N.
- Applies to navigable linear features only.

6.2.336 Variable Speed Sign

Definition ***Variable Speed Sign*** indicates the location of a typically automated sign where the posted speed limit can vary.

Condition type 11

Length 5

Condition Modifier 1

1 - Variable Sign Location = Left

2 - Variable Sign Location = Right

3 - Variable Sign Location = Overhead

Specification

- In European and U.S. databases, ***Variable Speed Sign*** and ***Variable Sign Location*** are published on links with ***Controlled Access*** = Y.

  In Western Europe, and in select Baltic states and East European countries, ***Variable Speed Sign*** is also published for links with ***Functional Class*** = 1 to 2.

- ***Variable Speed Sign*** represents the location of a variable speed sign. The Condition consists of two links. The order of the links determines the facing direction of the sign.

- ***Variable Sign Location*** identifies if the location is to the Left, Right or Overhead. If located in more than one spot, the most prominent one is chosen as the location.

- Positional accuracy is within +/-50 metres of the location of the ***Variable Speed Sign***.

- A ***Variable Sign Location*** is indicated when a variable speed sign is present and is permanently placed, as shown in *Figure 6-122*.

- The ***Access Characteristics*** of the ***Variable Speed Sign*** Condition are set to Y for all vehicle types.

Figure 6-122 shows a road where only a digital speed limit sign is displayed. With this type of sign the local authorities can change the speed limit without notice. In this situation, only ***Variable Speed Sign*** is applied, the speed limit value is not entered.

Figure 6-122

6.2.337 Waterway Description

The Waterway Description information can be found under ***Feature Type***.

6.2.338 Waterway ID

The Waterway ID is equivalent to the ***Polygon ID***.

6.2.339 Waterway Language Code

The Waterway Language Code is equivalent to the ***Language Code***.

6.2.340 Waterway Name

The Waterway Name Place Name is equivalent to the ***Feature Name***.

6.2.341 Z-Level

Definition	The relative vertical position of the shape point.
Value	-4 to +5
Length	5
Type	Signed Numeric
Usage	The ***Z-Level*** is used to represent the crossing over or under of links with other links. This attribute is not to be used to indicate actual elevation gain or loss. It is used to prevent routing between links that do not connect in reality.

Specification

- The ***Z-Level*** represents a relative vertical position of shape points and nodes in relation to “0” when features do not meet at-grade. For example, the intersection nodes of a motorway and an overpass will have different ***Z-Levels***. Note that the value is not an actual elevation.

- In Inter-Town, the ***Z-Level*** will not change on an included road if it crosses over/under another feature (road, railway, waterway) that is not included.

- ***Z-Levels*** do not change for a link that does not cross another link. Nodes or shape points are not added after a bridge in order to “lower” the ***Z-Level***.

- The ***Z-Levels*** change when a road crosses over or under another road or railroad

- Water features are represented at a ***Z-Level*** different from crossing roads and railroad

- Unless stated above, a ***Z-Level*** does not change when cartographic features intersect with another feature. For example, when an administrative boundary intersects a road, railroad, or water feature, they may share the same ***Z-Level***.

- Occasionally, when representing multi-level road features a link-on-link situation will occur. For example, some bridges have two levels where the top roadbed is directly above the lower. The upper or lower roadbed is reached via a ramp. When this occurs, the nodes for the upper and lower level links will be at the same latitude/longitude but will be represented at different ***Z-Levels***. Only nodes (illustrated by the squares in the diagrams) may be represented for link-on-link situations, shape points are not valid, as shown in *Figure 6-123* and *Figure 6-124.*

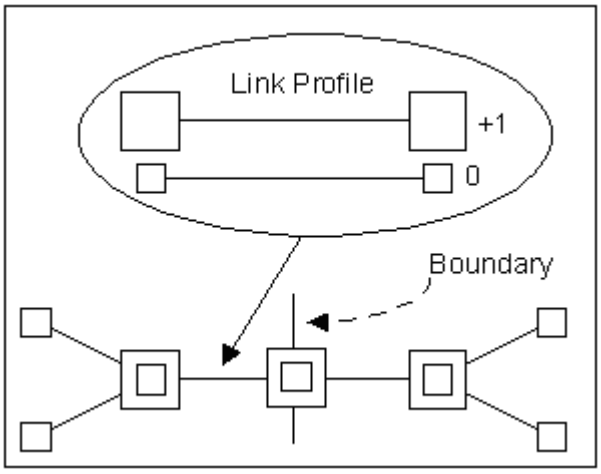


Figure 6-123

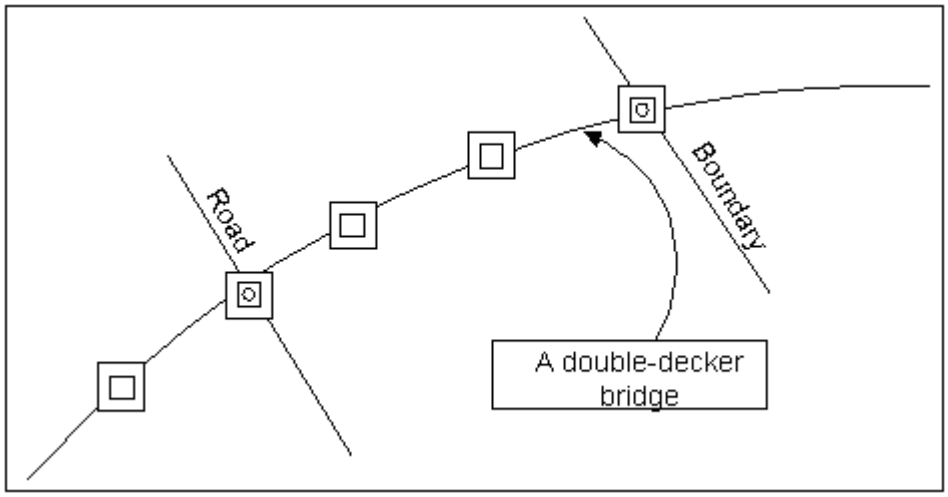


Figure 6-124

- Ferry routes that cross other ferry routes are represented using shape points at different ***Z-Levels*** (see *Figure 6-125*). Different ferry routes can only connect at a node at the point where they connect to a road.

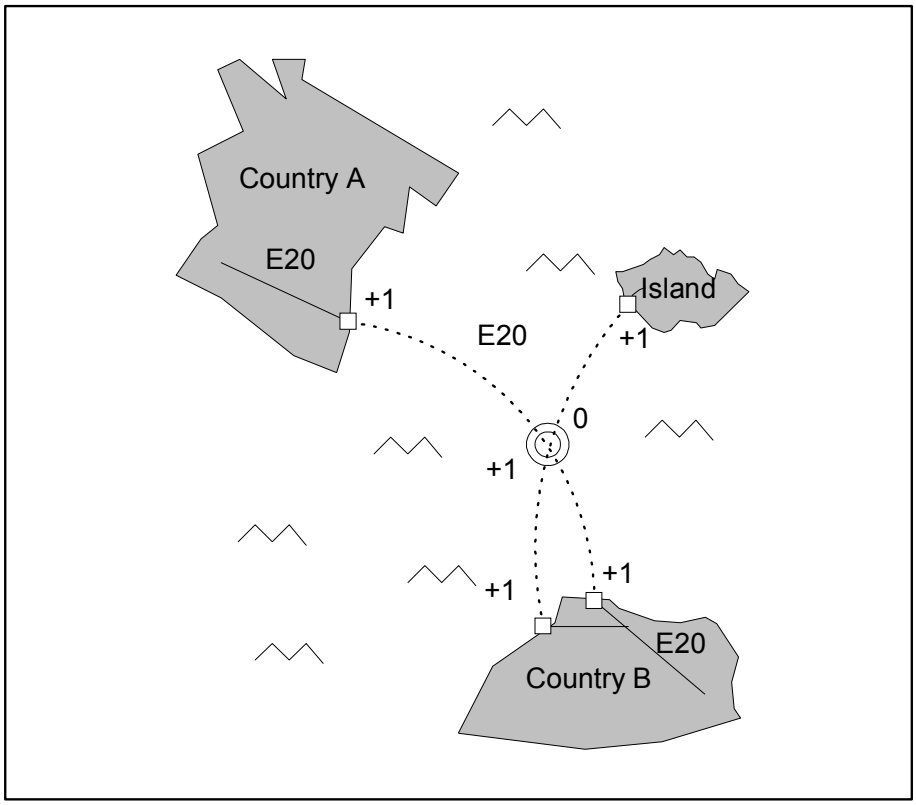


Figure 6-125

6.2.342 Z-Shape

Definition Identifier for the display of the Z-Level reference.

Value nn

Length 2

Type Numeric

6.2.343 Zone ID

Definition Identifies the unique identifier for a zone.

Value nnnnnnnnnn

Length 10

Type Numeric

Usage All zones should be recognised, along with administrative areas, for destination selection. They can also be used for map display and reverse geocoding. For reverse geocoding, ***Zone Types*** = PA and KA can be used. Zones in the U.S. can be used for map display.

6.2.344 Zone Name

Definition Identifies the name of the zone

Length 35

Type Text

Usage All zones should be recognised along with administrative name for destination selection. They can also be used for map display (in the U.S.) and reverse geocoding (***Zone Type*** = PA and KA).

Note: PA and KA Zones have the same exonyms/synonyms as the corresponding Administrative Area Feature.

Specification

- In all cases, the zone is an alternate name to the city/built-up area name for destination selection. Systems should recognise the association of a link to all of the city/built-up area and zones when allowing destination input.
- Some countries contain names that can only be represented in Unicode (e.g. Russia). Name records for ***Zone Name*** will be represented in the DNDC with ***Language Code*** = CYT and are supported by the delivery of a companion External Unicode "look-aside" file. See *Section A.3, External Unicode File Format* for details.
- Some cities in the U.S. can be entirely covered by a zone.
- Zones are further defined by the ***Zone Type***. ***Zone Type*** can equal PA, KA, or KD.
- Each side of a link may have from 0 to 10 zones associated with it.
- A ***Named Place*** POI is included for each zone (exceptions exist for PA Zones such as O'Hare Airport).
- If there are multiple occurrences of an address within a city or built-up area, zones can be used for refined address resolution.

6.2.345 Zone Side

Definition Indicates if the Zone name applies to the left, right, or to both sides of the line or polyline object.

Value L - The Zone name applies to the Left side of the line or polyline object.

R - The Zone name applies to the Right side of the line or polyline object.

B - The Zone name applies to Both sides of the line or polyline object.

Length 1

Type Text

6.2.346 Zone Type

Definition Identifies the type of Zone (i.e. KA, KD, or PA)

Value KA – Known As – Replaces Admin

KD – Known As – Does Not Replace Admin

PA – Postal Area

Length 2

Type Text

Specification

- See *Section C.3, Zones* for detailed information.

(This page intentionally left blank)

Appendix A
NAVSTREETS Product Variations

(This page intentionally left blank)

A.1 Introduction

The following NAVSTREETS Product Variations are described in this chapter:

- Premium
- External Unicode File Format

A.2 NAVSTREETS Premium Product

A.2.1 Layers

The NAVTEQ NAVSTREETS Premium product contains the following layers:

- Major and Secondary Highways
- Interstate and Secondary Highway Shields
- Railroads
- Zones
- Administrative Area
- Administrative Area Boundaries
- Cartographic Country
- Cartographic State
- Oceans
- Islands
- Waterway Polygons and Segments
- Building/Landmarks
- Land Use Features
- Streets (partial set of attributes)
- Metadata
- 17 Points of Interest (POIs) layers (Restaurants, Shopping, Parks and Recreation, etc. - Chapter 2 contains a full listing and description of each POI layer).
- Point of Interest Association
- Streets (full set of attributes)
- Alternate Street Address
- Signs
- Condition/Driving Manoeuvres (Date/Time Modifiers and Manoeuvre Links)
- Traffic
- Z-Levels

A.2.2 Attributes

All attributes per layer are listed in the *Attributes per Layer* section.

A.3 External Unicode File Format

A.3.1 Introduction

The SIF+ supports Unicode. However, as a limited term additional support, a companion External Unicode "look-aside" file is created per database Sub-Region to publish names requiring non-Latin 1 characters represented in Unicode (hereafter referred to as “Unicode” characters). The companion External Unicode look-aside file is generated specifically for SIF+ and included on the same media as the SIF+ file.

Note: SIF+ Unicode does not yet support all fields in the DNDC database.

A.3.1.1 Definition of Terms

- **Transliteration** - To represent (letters or words) using corresponding characters from a different alphabet.

  Note: In NAVTEQ data, transliteration is used to refer to names generated from non-Latin-1 names.

- **Transcription** - To represent (letters or words) using corresponding characters from a different alphabet, that most closely represent the pronunciation in the original language.

  Note: In NAVTEQ data, transcription is used to refer to names that appear in reality in Latin-1 characters in countries that use a different character set by default.

- **Latin-1** - Short-hand name referring to the character set using standard Latin symbols. This is also called ISO-8859-1. All characters published within a NAVTEQ SIF+ are Latin-1.

- **Unicode** - Officially this is an industry standard designed to allow text and symbols from all of the writing systems of the world to be consistently represented and manipulated by computers. For the purpose of this document, “unicode” refers to characters that do not exist in the Latin-1 character set.

A.3.1.2 References

The Unicode Consortium is a non profit organization that maintains the Unicode standard. Consult the Consortium website for more information http://www.unicode.org. NAVTEQ Unicode characters are compatible with versions 3.0 and higher of the Unicode standard. The current version, as of May 2004, is 4.0.1.

A.3.2 Supported Languages

NAVTEQ supports the following languages in their original Unicode representation:

- Arabic (ARA)
- Belarusian (BEL)
- Bosnian (BOS)
- Bulgarian (BUL)
- Czech (CZE)
- Traditional Chinese (CHT)
- Croatian (SCR)
- Estonian (EST)
- Greek (GRE)
- Hungarian (HUN)
- Latvian (LAV)
- Lithuanian (LIT)
- Macedonian (MAC)
- Montenegrin (MNE)
- Moldovan (MOL)
- Polish (POL)
- Romanian (RUM)
- Russian (RUS)
- Serbian (SRB)
- Slovak (SLO)
- Slovenian (SLV)
- Thai (THA)
- Turkish (TUR)
- Ukrainian (UKR)

See *Country Profiles* document for official language(s) per Country.

A.3.2.1 Use of Transcriptions in NAVTEQ SIF+ Products

- The following ***Language Codes*** are created by NAVTEQ to represent Latin-1 characters that appear in reality, in countries where Unicode also exists.

Language Code	Language Description	Countries Used
BET	Belarusian Transcribed	Belarus
BUT	Bulgarian Transcribed	Bulgaria
GRT	Modern Greek Transcribed	Greece
MAT	Macedonian Transcribed	Macedonia
RST	Russian Transcribed	Russia
SCT	Serbian Transcribed	Serbia
TKT	Turkish Transcribed	Turkey
UKT	Ukrainian Transcribed	Ukraine

Table A-1

- There is **no** one-to-one relationship between names with these transcribed language codes, and names with the corresponding 3-character ISO language code. For example, there is no RST (Russian Transcribed) name for every RUS (Russian) name.

- Names with these language codes are published in the SIF+ extract, independent of the extract variation (see *Section A.3.3, SIF+ Extract Variations*). They are not published in the Unicode look-aside file.

A.3.2.2 Use of Transliterations in NAVTEQ SIF+ Products

- Names with a “Transliterated” ***Language Code*** (e.g., BEX, BUX, etc.) represent names generated by NAVTEQ from the original non-Latin-1 name. These names are created by transliterating the original Cyrillic names into Latin-1 characters, as shown in *Table A-2* and *Table A-5*.

Country	Official Language	Transliteration Type	Unicode Characters	Transliteration	Unicode Characters	Transliteration
Belarus	BEL	BEX	А	A	П	P
			Б	B	Р	R
			В	V	С	S
			Г	H	Т	T
			Д	D	У	U
			Е	YE	Ў	W
			Ё	YO	Ф	F
			Ж	ZH	Х	KH
			З	Z	Ц	TS
			І	I	Ч	CH
			Й	Y	Ш	SH
			К	K	Ы	Y
			Л	L	Ь	'
			М	M	Э	E
			Н	N	Ю	YU
			О	O	Я	YA
Bosnia and Herzegovina	BOS	BOX	Ć	C	DŽ	DZ
			Č	C	Š	S
			Đ	DJ	Ž	Z
Bulgaria	BUL	BUX	А	A	П	P
			Б	B	Р	R
			В	V	С	S
			Г	G	Т	T
			Д	D	У	U
			Е	E	Ф	F
			Ж	ZH	Х	H
			З	Z	Ц	TS
			И	I	Ч	CH
			Й	Y	Ш	SH
			К	K	Щ	SHT
			Л	L	Ъ	A
			М	M	Ь	Y
			Н	N	Ю	YU
			О	O	Я	YA
Czech Republic	CZE	CZX	Á	A	Ř	R
			Č	C	Š	S
			Ď	D	Ť	T
			É	E	Ú	U
			Ě	E	Ů	U
			Í	I	Ý	Y
			Ň	N	Ž	Z
			Ó	O		

Table A-2

Country	Official Language	Transliteration Type	Unicode Characters	Transliteration	Unicode Characters	Transliteration
Estonia	EST	ESX	Š	S	Ž	Z
Greece	GRE	GRX	Α	A	Ι	I
			ΑΙ	AI	Κ	K
			Άι	AI	Λ	L
			ΑΪ	AI	Μ	M
			ΑΥ	AV [1]	ΜΠ	B [3]
				AF [2]		MP [4]
			Β	V	Ν	N
			Γ	G	ΝΤ	NT
			ΓΓ	NG	Ξ	X
			ΓΚ	GK	Ο	O
			ΓΞ	NX	ΟΙ	OI
			ΓΧ	NCH	Όι	OI
			Δ	D	ΟΪ	OI
			Ε	E	ΟΥ	OU
			ΕΙ	EI	Π	P
			Έι	EI	Ρ	R
			ΕΪ	EI	Σ	S
			ΕΥ	EV [1]	Τ	T
				EF [2]	Υ	Y
			Ζ	Z	Υι	YI
			Η	I	Φ	F
			ΗΥ	IV [1]	Χ	CH
				IF [2]	Ψ	PS
			Θ	TH	Ω	O
			[1] Before all vowels and consonants B, Γ, Δ, Z, Λ, M, N, and P [2] At the end of a word and before consonants Θ, K, Ξ, Π, Σ, T, Φ, X, and Ψ [3] At the beginning and end of a word [4] At the middle of a word			
Hungary	HUN	HUX	Ő	Ô	Ű	Û
Latvia	LAV	LAX	Ā	A	Ļ	L
			Č	C	Ņ	N
			Ē	E	Ŗ	R
			Ģ	G	Š	S
			Ī	I	Ū	U
			Ķ	K	Ž	Z
Lithuania	LIT	LIX	Ą	A	Š	S
			Č	C	Ų	U
			Ę	E	Ū	U
			Ė	E	Ž	Z
			Į	I		

Table A-3

Country	Official Language	Transliteration Type	Unicode Characters	Transliteration	Unicode Characters	Transliteration
Macedonia	MAC	MAX	А	A	Н	N
			Б	B	Њ	NJ
			В	V	О	O
			Г	G	П	P
			Д	D	Р	R
			Ѓ	GJ	С	S
			Е	E	Т	T
			Ж	ZH	Ќ	KJ
			З	Z	У	U
			S	DZ	Ф	F
			И	I	Х	H
			J	J	Ц	C
			К	K	Ч	CH
			Л	L	Џ	DZH
			Љ	LJ	Ш	SH
			М	M		
Moldova	MOL	MOX	Ă	A	Ş	S
			Ĭ	I	Ţ	T
Montenegro	MNE	MNX	Ć	C	Š	S
			Č	C	Ś	S
			Đ	DJ	Ž	Z
			DŽ	DZ	Ź	Z
Romania	RUM	RMX	Ă	A	Ş	S
			Ĭ	I	Ţ	T
Russia	RUS	RUX	А	A	Р	R
			Б	B	С	S
			В	V	Т	T
			Г	G	У	U
			Д	D	Ф	F
			Е	E	Х	KH
			Ё	YO	Ц	TS
			Ж	ZH	Ч	CH
			З	Z	Ш	SH
			И	I	Щ	SHCH
			Й	Y	Ъ	'
			К	K	Ы	Y
			Л	L	Ь	'
			М	M	Э	E
			Н	N	Ю	YU
			О	O	Я	YA
			П	P	-ЫЙ ending	-IY

Table A-4

Country	Official Language	Transliteration Type	Unicode Characters	Transliteration	Unicode Characters	Transliteration
Serbia	SRB	SCX	А	A	А	A
			Б	B	Б	B
			В	V	В	V
			Г	G	Г	G
			Д	D	Д	D
			Ђ	DJ	Ђ	DJ
			Е	E	Е	E
			Ж	ZH	Ж	ZH
			З	Z	З	Z
			И	I	И	I
			Ј	J	Ј	J
			К	K	К	K
			Л	L	Л	L
			Љ	LJ	Љ	LJ
			М	M	М	M
Turkey	TUR	TUX	Ğ	G	İ	I
			Ş	S		
Ukraine	UKR	UKX	А	A	Н	N
			Б	B	О	O
			В	V	П	P
			Г	H	Р	R
			Ґ	G	С	S
			Д	D	Т	T
			Е	E	У	U
			Є	YE	Ф	F
			Ж	ZH	Х	KH
			З	Z	Ц	TS
			И	Y	Ч	CH
			І	I	Ш	SH
			Ї	YI	Щ	SCH
			Й	Y	Ю	YU
			К	K	Я	YA
			Л	L	Ь	'
			М	M	'	'

Table A-5

- Names with “Transliterated” ***Language Codes*** are usable in their published form for display and destination input. *Table A-6* lists the “Transliterated” ***Language Codes*** for the corresponding countries.

Language Code	Language Description	Countries Used
BEX	Belarusian Transliterated	Belarus

Language Code	Language Description	Countries Used
BOX	Bosnian Transliterated	Bosnia and Herzegovina
BUX	Bulgarian Transliterated	Bulgaria
SRX	Croatian Transliterated	Croatia
CZX	Czech Transliterated	Czech Republic
ESX	Estonian Transliterated	Estonia
GRX	Greek Transliterated	Greece
HUX	Hungarian Transliterated	Hungary
LAX	Latvian Transliterated	Latvia
LIX	Lithuanian Transliterated	Lithuania
MAX	Macedonian Transliterated	Macedonia
MOX	Moldovan Transliterated	Moldova
POX	Polish Transliterated	Poland
RUX	Russian Transliterated	Russia
RMX	Romanian Transliterated	Romania
SCX	Serbian Transliterated	Serbia
SLX	Slovak Transliterated	Slovak Republic
SIX	Slovenian Transliterated	Slovenia
TUX	Turkish Transliterated	Turkey
UKX	Ukrainian Transliterated	Ukraine
ENG	English	Arabic countries, Hongkong, Taiwan, and Thailand
POR	Portuguese	Macau

Table A-6

- There is a one-to-one relationship between names with these ***Language Codes***, and names with the corresponding 3-character ISO ***Language Code***. For example, there is a Transliterated name for every BEL (Belarusian), BUL (Bulgarian), MAC (Macedonian), GRE (Greek), RUS (Russian), SRB (Serbian), and UKR (Ukrainian) name.

- Names with these ***Language Codes*** are **only** published in the SIF+ extract variation B (see *Section A.3.3, SIF+ Extract Variations*). They are **always** published in the Unicode look-aside file, alongside the unicode equivalent names.

A.3.3 SIF+ Extract Variations

There are three delivery options for SIF+ extracts:

- SIF+ with Latin-1 names in the Text fields which are intended to be used without Unicode look-aside files. For this variation, the corresponding “transliterated” ***Language Code*** is published (e.g., RUX).
- SIF+ with identifiers (numerical IDs in the Text Fields) intended to be used with Unicode look-aside files. For this variation, the ISO ***Language Code*** is published (e.g., RUS).
- SIF+ that are fully UTF-8 encoded containing names in the native language and incorporated transliterations.

For extracts with look-aside files, linking to the original Unicode names can be done by matching:

- The Latin-1 character strings within the look-aside file and the first SIF+ variation.
- The IDs within the look-aside file and the second SIF+ variation.

A.3.4 Street Type Representation

Street Types for the languages listed in *Table A-7* are not located in the Street Type File. Instead, they are represented in the base name. For the indicated languages, Street Types are separated by brackets {}. This representation is consistent, whether the Street Types precede or follow the base name.

Languages	Street Type
Arabic (ARA)	separated by brackets {}
Belarusian (BEL)	
Bosnian (BOS)	
Bulgarian (BUL)	
Czech (CZE)	
Traditional Chinese (CHT)	separated by brackets {}
Croatian (SCR)	
Estonian (EST)	
Greek (GRE)	
Hungarian (HUN)	
Latvian (LAV)	
Lithuanian (LIT)	
Macedonian (MAC)	
Montenegrin (MNE)	

Languages	Street Type
Moldovan (MOL)	
Polish (POL)	
Romanian (RUM)	
Russian (RUS)	
Serbian (SRB)	
Slovak (SLO)	
Slovenian (SLV)	
Thai (THA)	separated by brackets {}
Turkish (TUR)	
Ukrainian (UKR)	

Table A-7

Note: The Unicode LAT file however republishes the curly braces for all the transliteration of the abovelisted languages, since no model is available to publish Street Type transliteration.

For languages where the Street Type is attached to the ***Base Name(!B)***, this is indicated by entering the name without a space between the Name and the bracket. Conversely, when a Street Type is unattached, this is indicated by entering the Name with a space between the Name and the bracket that encloses the Street Type. See *Table A-8* for example.

Name	Parsing
ÏÊÔÙÂÑÉÏÕ{ÊÁÑÏËÏÕ}	Attached
ÏÊÔÙÂÑÉÏÕ {ÊÁÑÏËÏÕ}	Unattached

Table A-8

A.3.5 Sign Representation

Each sign record is published with one ID number in the look-aside file. When a sign record has multiple destinations and/or multiple sign entries within a destination, each sign text and sign route ID is published as a separate record in the look-aside file. These records are assigned the ID relating to the sign record, plus a sequentially assigned sequence number (separated with a hyphen). The sequence numbering starts from 1 thru n for each sign record.

For example, if the sign record has ID 99, and two destinations, the sign text relating to destination 1 is assigned ID 99-1, and the sign text relating to destination 2 is assigned ID 99-2.

The sign entries are published in a prescribed order; destination 1 before destination 2, and sign text/route ID 1 before sign text/route ID 2.

A.3.6 Unicode Specifications

Beginning Q4 of 2007, SIF+ extracts are delivered using the same encoding, UTF-8. This is also true for countries where Latin-1 encoding would suffice for representing names. Note however, that as a transitional support, the Latin-1 encoded extract continues to be available, and is delivered with a (UTF-16 encoded) look-aside file. This alternate support will be discontinued by 2009.

"UTF" refers to "Unicode Transformation Format." UTF-8 and UTF-16 are two different methods using a variable number of bytes per character to reduce the amount of storage space required for Unicode text files. UTF-8 (8-bit UCS/Unicode Transformation Format) is a variable-length character encoding for Unicode. It is able to represent any character in the Unicode standard, yet the initial encoding of byte codes and character assignments for UTF-8 is backwards compatible with ASCII-7. Therefore, for strings fitting in ASCII-7, customers can convert between the UTF-8 representation without any loss of information.

A.3.7 File Specifications

The output file is a UTF-16 tab delimited text file following the same naming conventions used for SIF+ A file extension of ".UNI" is used. See *Section A.3.13, Example File* for an example of which data a ".UNI" file contains.

A.3.8 Record Specification

Each External Unicode look-aside file contains 3 record types:

- Header Record - Tab delimited record describing the contents of the file
- Data Record - Tab delimited data
- Termination Record - End of file indicator

A.3.9 Inclusion

All attributes are provided on a data record of Type 10. At this time, NAVTEQ supports the languages listed in *A.3.2 Supported Languages* using “Transliterated” ***Language Codes***.

NAVTEQ supports text only for the following fields:

Supported Field	Location	Comments
Feature Name	Link Usage Feature Record [21]	Street Type information is included in the ***Feature Name*** attribute always indicated in braces {}. Feature names for junction names for landmark points are also included.
Area Name	Area Main Record [06]	
Zone Name	Zone Record [06]	
POI Name	Link POI Name Record [32]	
Street Name	Name Record [41]	
Sign Text	Link Sign Record [51]	
Branch Route ID	Link Sign Record [51]	
Toward Route ID	Link Sign Record [51]	

A.3.10 Usage

The Unicode data can be used with the NAVTEQ database as described below.

A.3.10.1 SIF+ Extract Variation A

The ***Look-Aside ID*** allows matching between the External Unicode look-aside file and the NAVTEQ SIF+ product. An ID exists as a placeholder in the NAVTEQ product instead of a name. When processing a supported record in the extract, the record contains an identifier that is found in the External Unicode File.

When different features share a common name (for example, ***Named Place*** POI and ***Built-up Area)***, a single ID is published in the look-aside file which is referenced multiple time in the SIF+ extract.

A.3.10.2 SIF+ Extract Variation B

The ***Transliterated Text*** field allows matching between the External Unicode look-aside file and the NAVTEQ SIF+ product. The transliterated text will appear as a name in the extract file. When SIF+ Extract Variation B is used, there is a one-to-one relationship between a Unicode name and a transliterated name.

When different features share a common name (for example, ***Named Place*** POI and ***Built-up Area)***, multiple entries are published in the look-aside file which correspond to the multiple entries in the SIF+ extract.

A.3.11 Attributes

This section describes the data from the NAVTEQ External Unicode File. For each data element, the following is described:

- Definition: This describes the data in real world terms
- Value: The type of characters allowed
- Specification: This refers to the usage of the data

A.3.11.1 Look-Aside ID

Definition Look-Aside ID is the identifier used to relate a Unicode text string with the rest of the data in the NAVTEQ extract.

Value Character, variable length (only numeric characters and the dash "-" character within the "Basic Latin" code point range as identified by the Unicode standard).

Record Type Data Record [10]

Specification

- The ***Look-Aside ID*** provides a unique identifier within the External Unicode File that matches the same identifier that is published within a text string field of the NAVTEQ SIF+ product. The ID appears as if it is the "name" of the feature in the DNDC, but actually the name can be found within the External Unicode File in the ***UTF Text*** field (described below). The Language Code used in the extract indicates that the field is Unicode.

  Note: The External Unicode File ***Look-Aside ID*** does not identify which type of field is referred to from the extract. The extract should be read and used to retrieve an ID from the External Unicode look-aside file. (There is no possibility that two different text strings use the same ID, regardless of the type of field in the extract).

A.3.11.2 UTF Language Code

Definition The language code associated with the UTF text.

Value See *Section A.3.2, Supported Languages*.

Character, length 3.

Record Type Data Record [10], Data Record [20].

Specification • Each name receives a language code which identifies the language of the text.

A.3.11.3 UTF Text

Definition ***UTF Text*** provides the Unicode supported characters.

Value Character, variable length. Any character within the Unicode Standard.

Record Type Data Record [10]

Specification The UTF Text field includes all of the text information needed for the matching field from the SIF+. See *Section A.3.9, Inclusion*.

A.3.11.4 Latin-1 Language Code

Definition The language code associated with the Latin-1 text. It is also known as the ***Transliteration Type***.

Value

Language Code	Language Description
BEX	Belarusian Transliterated
BUX	Bulgarian Transliterated
CZX	Czech Transliterated
GRX	Greek Transliterated
HUX	Hungarian Transliterated
MAX	Macedonian Transliterated
RUX	Russian Transliterated
SCX	Serbian Transliterated
SLX	Slovak Transliterated
SIX	Slovenian Transliterated
TUX	Turkish Transliterated
UKX	Ukrainian Transliterated

Language Code	Language Description
ENG	English
POR	Portuguese
PYN	Pinyin

Character, length 3

Record Type Data Record [10]

Specification Each name receives a language code which identifies the language of the text.

A.3.11.5 Latin-1 Text

Definition Representation of letters or words in the corresponding characters of another alphabet.

Value Character, variable length. Any character within the "Basic Latin" code point range as identified by the Unicode standard.

Record Type Data Record [10]

Specification For the languages listed in *Section A.3.2, Supported Languages*, each name is represented as a Latin-1 character string.

.

A.3.12 File Formats

The External Unicode File is a UTF-16 tab delimited file. Each file contains a header and termination record.

Note: The Size field refers to characters instead of bytes. Since UTF-16 is a variable byte format the size of each character is either 2 or 4 bytes in length. Consult the Unicode 2.0 or later standard for more information regarding how to read UTF-16 files.

The information below lists the content and format of each file.

A.3.12.1 Header Record [01]

Field Name	Type	Size	Description
Record Type	Numeric	2	"01" - Header Record

Field Name	Type	Size	Description
File Type	Character	*	"UTF-16" -Indicates that the file is a Unicode File
Database Version Number	Character	*	Derived from SIF+ header, uniquely identifies the NAVTEQ database used
Log Number	Character	*	Internal Tracking Number
File Creation Date	Character	6	"YYMMDD"Date file was created
File Creation Time	Character	4	"HHMM" Time file was created
Copyright	Character	*	"(C)NAVTEQ NORTH AMERICA, LLC"Copyright Message for NAVTEQ

* = Variable Length

A.3.12.2 Data Record [10]

Field Name	Type	Size	Description	Comment
Record Type	Numeric	2	Identifier indicating Data record	"10" - Data Record, ID Method
Look-Aside Identifier	Character	*	Unique Identifier for this record	
UTF-16 Language Code	Character	3	Language code for the Unicode Representation	
UTF-16 Text	Character	*	Unicode Representation for the value represented	
Latin-1 Language Code	Character	3	Language code for the Latin-1 Representation	
Latin-1 Text	Character	*	Latin-1 Representation for the value represented	

* = Variable Length

A.3.12.3 Termination Record [99]

Field Name	Type	Size	Description
Record Type	Numeric	2	"99" - Termination Record
EOF Indicator	Character	11	“END OF FILE”
Total Records	Numeric	*	Total number of records in the file

* = Variable Length

A.3.13 Example File

01	UTF-16	040503	2010	(C)NAVTEQ NORTH AMERICA, LLC	
10	1	RUS	сильный	RUX	SIL'NYJJ
10	2	RUS	мыс	RUX	MYS
10	3	RUS	святой	RUX	SVJATOJJ
10	4	RUS	источник	RUX	ISTOCHNIK
10	5	RUS	русская ёлка	RUX	RUSSKAJA JOLKA
10	6	RUS	ночь	RUX	NOCH'
10	7	RUS	шипящий	RUX	SHIPJASHHIJJ
10	8	RUS	свистящий	RUX	SVISTJASHHIJJ
10	9	RUS	заботливый	RUX	ZABOTLIVYJJ
10	10	RUS	здание	RUX	ZDANIE
10	11	RUS	цоколь	RUX	COKOL'
10	12	RUS	вьюга	RUX	V'JUGA
10	13	RUS	подъезд	RUX	POD"EZD
10	14	RUS	монитор	RUX	MONITOR
10	15	RUS	гофрированный	RUX	GOFRIROVANNYJJ
10	16	RUS	хороший	RUX	KHOROSHIJJ
10	17	RUS	тополь	RUX	TOPOL'
10	18	RUS	сигарета	RUX	SIGARETA
10	19	RUS	книжка	RUX	KNIZHKA
10	20	RUS	лампа	RUX	LAMPA
10	21	RUS	счёт	RUX	SCHJOT
10	22	RUS	яшма	RUX	JASHMA
10	23	RUS	батарейка	RUX	BATAREJJKA
10	24	RUS	кирпич	RUX	KIRPICH
10	25	RUS	электроника	RUX	EHLEKTRONIKA
99	END OF FILE 27				

(This page intentionally left blank)

Appendix B
General Naming Rules

(This page intentionally left blank)

B.1 General Naming Rules

Note: In South Africa, street names are applied per digital source.

Capital Letters

- NAVTEQ only publishes text in capital letters.

Abbreviations

- Abbreviations are not used unless the name entry exceeds 35 characters. When this occurs words are abbreviated backward, from the last word in the entry. Only the number of words necessary to fit the ***Feature Name*** entry into the field are abbreviated.
- In the U.S., words that are covered by the name normalising rules are not abbreviated. See *Section B.1.3, U.S. Naming Rules* below.
- Spaces are not used between acronyms e.g., “IBM Blvd” not “I B M Blvd”.

Punctuation

- Punctuation (e.g., apostrophes, hyphens, etc.) is included if indicated in the source material. The following characters are valid: ~ ! @ # $ % ^ & * ( ) _ + | ` ´-=\ { } [ ] ; : ' " , . < > ? /
- Unless noted otherwise in the country specific rules.
- In Europe and Canada, the following special characters may be used*: À, Á, Â, Ä, Å, Ã, Æ, Ç, È, É, Ê, Ë, Ì, Í, Î, Ï, Ñ, Ò, Ó, Ô, Ö, Õ, Ø, Ù, Ú, Û, Ü, Ý.*
- ***Feature Names*** do not begin with a “-“. If the street type creates a ***Feature Name*** which begins with a dash, then the whole name is put into the Feature Name and no ***Street Type*** is applied. Example: “Plein-Zuid” and “Platz-der-Deutschen-Einheit”

Naming Convention Exceptions

- The naming conventions in *Section B.1.1, European Naming Rules*; *Section B.1.2, Canadian Naming Rules*; and *Section B.1.3, U.S. Naming Rules*e are guidelines only. NAVTEQ applies these conventions in most cases, but there are names that do not reflect these rules. For example, names from Third Party Suppliers do not necessarily follow these conventions. For this reason, and because users are not familiar with the naming conventions, system developers should design the system to be flexible.

B.1.1 European Naming Rules

- As a general rule, street names are included in the database exactly as they appear on the street sign. In addition, street names that include a number are also included in the database exactly as they appear on the street signs. Street names such as “Rue No 6”(reality) are entered as “Rue No 6,” rather than expanding the name to “Rue numero 6”.

- ***Route Numbers*** that include superscript characters, such as French ***Route Numbers*** (for example, D18^{1}, D18^{III}, D18^{A}, D18^{a}) are published as “D18” followed by a space and then the superscript character(s) in normal uppercase text. For example, D18^{III} is published as D18 III.

- Abbreviations are not used when a source contains an abbreviation, but the full name can be determined. In this case, the full name parts of a street name are included, such as Strasse, Rue, Straat, Laan, etc.

- ***Prefixes*** and ***Suffixes*** do not exist in Europe.

- If the source contains an abbreviation and the full name cannot be determined, an abbreviation is used, followed by a period (.).

    - The appropriate language is applied for each name. In some cities the streets have names in two languages, each name is entered with the correct language code. For example, in Biel, Switzerland all the streets have a German and a French name.

<u>UK Specific</u>

- “St” is not expanded to the full name (Saint) for street names beginning with “St”. The full name for St never appears on road signs or source material. A period is not included after “St”.

- Apostrophes are used to show possession, except for foreign language words (see *Section B.1.3, U.S. Naming Rules*, and when indicated on source materials.

- No spaces are used following initials (MC, MAC).

<u>Hamlets</u>

- Hamlet names are not applied as street names if other street names exist, and inhabitants refer to these street names as where they live.

- However, if the inhabitants refer to the Hamlet name as their address, and if the street contains houses, the Hamlet names are added in the following manner:
  - In all European Countries, except Austria, Germany, and the Netherlands:

    When no other street names exist, the Hamlet names receives **Vanity Name** = Y, **Name on Road Sign** = Y, and **Explicatable** = Y.

    When a Route Number or a local name exists on a link, the Hamlet name is **Vanity Name** = Y, **Name on Road Sign** = N, and **Explicatable** = N. **Name on Road Sign** is set to No so the name can be recognised during destination input, but should not be used in explication.
  - In Austria and Germany:

    When no other street names exist, the Hamlet names receive ***Vanity Name*** = Y, ***Name on Road Sign*** = Y, and ***Explicatable*** = Y.

    Austria: When a Route Number with ***Name Route Type Level*** = 5 or a local name exists on a link, the Hamlet name is ***Vanity Name*** = Y, ***Name on Road Sign*** = Y, and ***Explicatable*** = Y, while the Route Number and local name receive ***Name on Road Sign*** = N and ***Explicatable*** = N. ***Name on Road Sign*** is set to No so the name can be recognised during destination input, but should not be used in explication.

    Austria: When a Route Number with ***Name Route Type Level*** = 1, 2, 3, or 4 exists with the Hamlet name, the Route Number is preferred for explication.

    Germany: When a Route Number with ***Name Route Type Level*** = 1, 4, 5, or 6 or a local name exists on a link, the Hamlet name is ***Vanity Name*** = Y, ***Name on Road Sign*** = Y, and ***Explicatable*** = Y, while the Route Number and local name receive ***Name on Road Sign*** = N and ***Explicatable*** = N. ***Name on Road Sign*** is set to No so the name can be recognised during destination input, but should not be used in explication.

    Germany: When a Route Number with ***Name Route Type Level*** = 2 or 3 exists with the Hamlet name, the Route Number is preferred for explication.

- In the Netherlands, one street in a Built-up Area/Hamlet often has the name of that Built-up Area/Hamlet itself, while the other streets have regular street names. In this case the street that carries the name of the Built-up Area/ Hamlet receives ***Vanity Name*** = N.

B.1.2 Canadian Naming Rules

All U.S. naming rules are applied to Canada unless otherwise specified below.

B.1.2.1 Normalising Names

- All Canadian English feature names are entered according to the table under U.S. Naming Rules, Normalising Names. All Canadian French language feature names are not normalised but are entered as shown on sources.

- Some roads in Canada are referred to as “Lane”, “Line” or “Concession.” For example, a road may be named “Lane 108”, “Line 1”, “3 Line”, “3 Concession”, or “Concession Three.” When Lane, Line, and Concession appear at the end of the name they can be treated as Street Types. If however, Lane, Line, or Concession appear at the beginning of the name (or anywhere except the end) these names are spelled out as part of the Feature Name.

- Some numeric names in Canada do not include the suffix (-th, -st) following the number, e.g. 7 Ave or 101 St instead of 7^{th} or 101^{st}.

- When a street name contains a numeral followed by a letter, a space is entered between the two e.g., “205 B St”.

B.1.2.2 Languages (English/French)

- Canada is officially bilingual (French and English). However, street names and signs are usually either English or French and are only represented as bilingual in a few areas.

- When a street name is represented in two languages e.g., “Av Main Ave”, two names are applied: “Av Main” (French) and “Main Ave” (English).

- Local Signs are maintained by Municipalities and thus may create some special cases within the Provinces. For example, the City of Montréal-Ouest carries English signage despite being in the French Speaking Province of Quebec.

B.1.2.3 Abbreviations

- When needed, the authorised abbreviations listed in *Table B-1* are used. Names that have required NAVTEQ convention for entry are not abbreviated. Names are abbreviated when the Feature Name exceeds 35 characters starting from the last word in the name and ending when the name is less than 35 characters.

Commonly Used Abbreviations for Canada

Full Name	Abbreviation	Always Abbreviated[1]	Valid for[2]
Autoroute	Aut	Y	Street, POI
Avenue	Av	N	Street, POI
Boulevard	Boul	N	Street, POI
Chemin	Ch	N	Street, POI
Compagnie	CIE.	N	POI
Esplanade	Espl	N	Street, POI
John Fitzgerald Kennedy	JOHN F. KENNEDY	Y	Street
Monseigneur	MGR.	N	All
Notre-Dame	N.-D.	N	Street, POI
Promenade	Prom	N	Street, POI
Saint-	ST-	Y	All
Sainte-	STE-	Y	All
Square	Sq	N	All
Tunnel	Tunn	N	Street, POI
Université	UNIV.	N	All

1. Some words are always abbreviated, even if the full name is less than 35 characters. These words are indicated by “Y”.
2. This indicates whether each abbreviation is valid for street names (Street), polygon names (Poly), POI names (POI), or all of these (All).

Table B-1

- An abbreviation is not used when the full name can be determined, even if it is abbreviated on the sign.

  Note: Except the names indicated with a “Y” in the Always Abbreviated column of *Table B-1*. E.g. Rue Saint-Denis will be represented as Rue St-Denis.

  - If the source contains an abbreviation and the full name cannot be determined, an abbreviation is used followed by a period.
  - If there are two first names abbreviated, the abbreviations are implemented followed by a period and space. E.g. Place J. F. Millet.

- All other French language ***Feature Names*** are not normalised but are entered as shown on sources.

B.1.3 U.S. Naming Rules

B.1.3.1 Abbreviations

- Feature Names are not abbreviated because the street sign has abbreviations, if on another source the name is spelled out. Street signs often abbreviate names so that they fit the sign but do not necessarily reflect the complete name. For example, a street sign may read “M L King Blvd” but the complete name is entered into the database as “Martin Luther King Blvd” as spelled out on other sources.

- In cases such as AJ Foyt Ave or DB Cooper Dr, spaces are not used between the initials.

- Certain words at the beginning of the Feature Name are represented as follows:

A feature Name that includes	Is Entered as
Mount[1]	Mt
Saint[1]	St
Lk	Lake
Pt	Point
Mtn	Mountain
Ave[2]	Avenue or Avenida
Ft	Fort
Cyn	Canyon

1. When Mount or Saint are the last word in a name or are the only word, they are not abbreviated. For example, Spring Mount would not be abbreviated to Spring Mt.
2. Names like Avenida del Paseo or Avenue A are spelled out.

Table B-2

B.1.3.2 Punctuation

- Periods are not valid in the ***Feature Name*** unless used as a decimal point.

- Apostrophes are only used to show possession or as part of a NAVTEQ approved abbreviation, except for foreign language words denoting an article and a noun, for example, L’Esperance Ln, L’Anguille Ave, D’Abadie St, etc. If

the lack of the apostrophe impacts the pronunciation or meaning of the word, the apostrophe is included (except for Hawaii).

- A space or apostrophe is not included following Mc_/Mac_/O_/O' or similar letter combinations in street. For example, the following feature names are entered as "McDonnell" and "OBrien".

B.1.3.3 Normalising Names

The following conventions are applied to the Feature Name of each feature to standardise representation of names. These rules only apply to words in the ***Feature Name***. These rules are not applied to street types.

Old Route Names

- Roads with names such as "Old Highway 25" usually do not represent shielded routes. When these types of names are present on street signs or other sources but are not represented in shields, then the Numbered Route naming conventions are not applied.

Most Complete Name

- When sources provide two road names that have the same Feature Name but any other part of the name is omitted, a single most complete name is applied. For example, if sources provide the names "N Main St" and "Main", "N Main St" is applied because it is the more complete name. Each administrative area is evaluated separately when applying this rule.

Multiple Names

- Multiple names are applied to a road when:
  - The Feature Names are different.
  - The Feature Names are the same and any other part of the name is different (e.g., "Main St" versus "Main Ave").
- The link is also a boundary between administrative areas and each name is valid within its respective area.

Overpasses/Underpasses

- When different names exist on either side of an overpass or underpass, the overpass or underpass receives double names. See *Figure B-1* through *Figure B-3*.

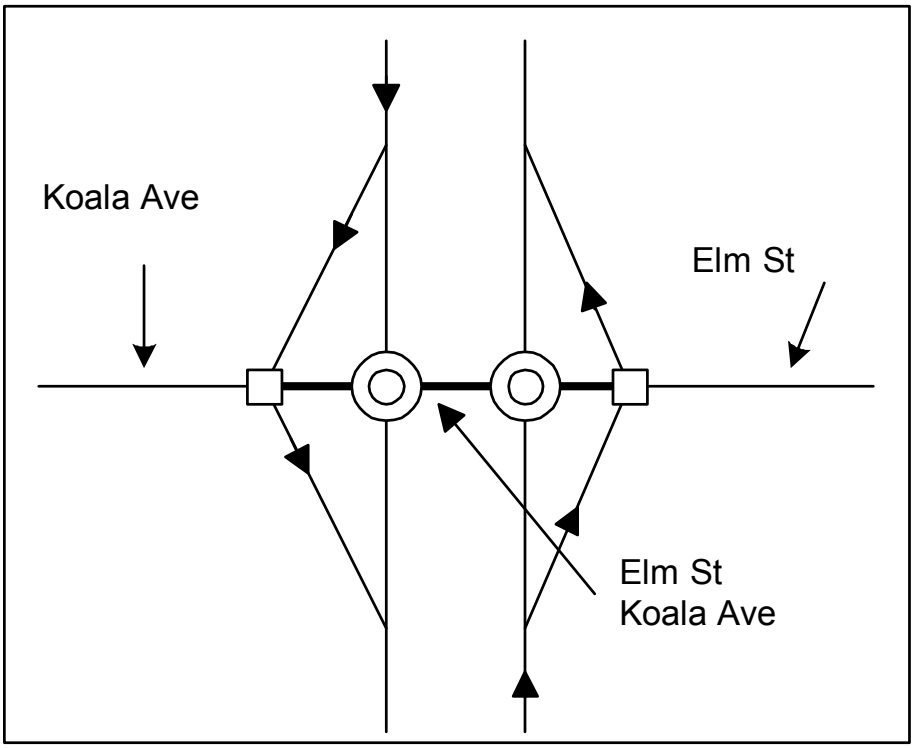


Figure B-1

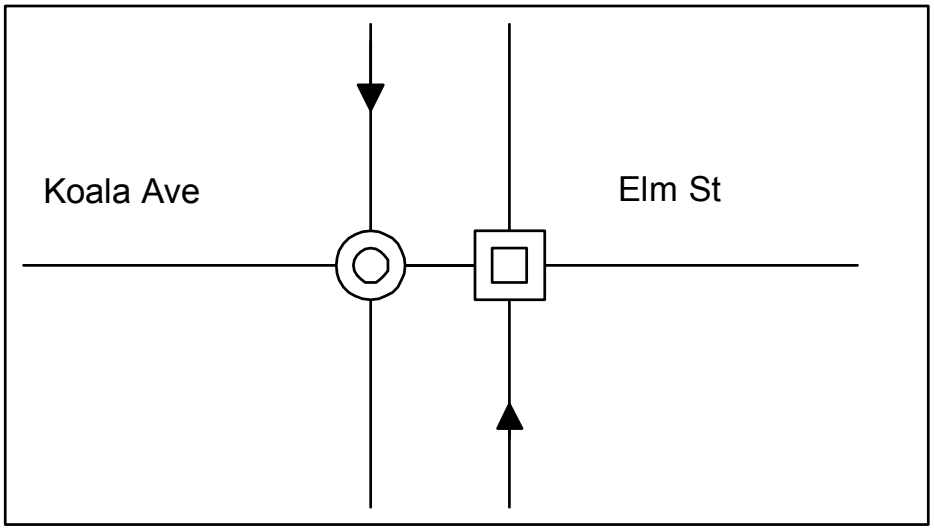


Figure B-2

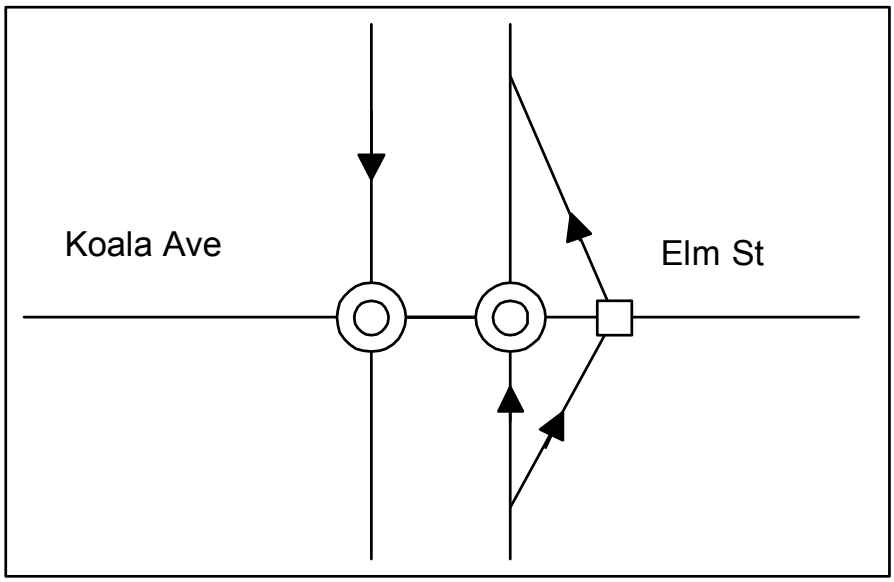


Figure B-3

Prefixes and Suffixes

- Prefixes and suffixes occur on numbered routes for address matching purposes. For example, “IL-59” (with no prefix) runs through a city. Within the city limits, three blocks of “IL-59” become “S IL-59” and have addresses assigned to them. In this case, the prefixed name is added as a second, non-explicatable name even if displayed on street signs. IL-59 S, which is common in the database, represents a direction on sign in most cases and not a suffix.
  - Name 1: “IL-59” is ***Explicatable*** = Y, ***Name Route Type*** = 3 and does not include the addresses.
  - Name 2: “S IL-59” is ***Explicatable*** = N, no ***Named Route Type*** information and includes the addresses. If the name with the prefix or suffix is only found in the postal file, then it is coded as ***Postal Name*** = Y.
  - This scheme prevents the generation of navigation directions such as “Take IL-59 to S IL-59 to IL-59...”.

Street Type in the Feature Name Field

- There are cases where a street name includes two valid NAVTEQ-defined street types. In these cases, the last street type is included in the Street Type field. The other street type is included in the Feature Name. Depending on the actual street type, it will be either abbreviated or expanded. The guideline is, if the street type is commonly used, such as St, Ave, Rd, Dr, Ln, Blvd, and Ct, then the abbreviation is used. If it is not a commonly used street type and is

logically part of the Feature Name, then the street type is expanded to its complete spelling.

Street Name	Feature Name	Street Type
MAIN ST EXT	MAIN ST	EXT
RED RIDGE RD	RED RIDGE	RD
VALLEY FORGE RD	VALLEY FORGE	RD

Numeric Naming Convention

- When the name of a road contains only numbers, the name is represented in numerals (e.g., 112th Street). Road names represented in numerals with fractions are represented using the fraction (e.g., 69 1/2 Street). When the name of a road contains both numbers and words, the number portion is spelled out (e.g., Four Lakes Road). However, street names such as Exit 5 Pkwy, 8 Mile Dr, and 102nd St Ct would not have the numerals spelled out.

Postal Names

- When a United States Postal Service(USPS) name is different from the actual road name as determined by other higher-quality source materials, the postal name is applied as ***Postal Name*** = Y. This situation usually occurs when postal names are misspelled (including spacing), or street types conflict. An example is Dr Martin Luther King Blvd in the postal file would be added as a duplicate name if Martin Luther King Blvd was on the base map. For this example the postal file has a name with different spelling which isn't included in any naming conventions.

- A second postal name is not applied when the difference is the result of punctuation, such as an apostrophe or other naming conventions listed under Normalising Names, Most Complete Name, or Numeric Naming Convention.

Abbreviations

- When needed, the authorised abbreviations on the following page are used. Names that have required NAVTEQ convention for entry are not abbreviated. Names are abbreviated when the Feature Name exceeds 35 characters starting from the last word in the name and ending when the name is less than 35 characters.

U.S. Naming Rules Approved Abbreviations for Names Greater than 35 Characters

Administration	ADMIN	East	E	Lakes	LKS	Reservoir	RESERV'R
Agricultural	AGR	Educational	EDU'L	Landing	LNDG	Ride	RDE
Air Force Base	AFB	Elementary	ELEM	Learning	LRNG	Ridge	RDG
Alternative	ALT	Entrance	ENT	Library	LBRY	River	RIV
American	AMER	Environmental	ENVR'L	Lodge	LDG	Saint	ST
Associates	ASSOC	Fame	FME	Maintenance	MAINT	Sanctuary	SANCT'Y
Avenue	NAVTEQ CONV	Field	FLD	Mall	MI	Savings	SAV
Beach	BCH	Fields	FLDS	Management	MGT	School	SCH
Bed & Breakfast	B&B	Fort	NAVTEQ CONV	Meadows	MDWS	Science	SCI
Branch	BR	Gallery	GAL'Y	Medical	MED	Shoal	SHL
Building	BLDG	General	GEN	Memorial	MEM'L	Shores	SHRS
Bluff	BLF	Glen	GLN	Metropolitan	METRO	Society	SOC
Bridge	BRG	Golf Club	GC	Missle Range	MR	South	S
Canyon	NAVTEQ CONV	Golf Course	GC	Monument	MON	Spring	SPG
Center	CTR	Golf and Country Club	G&CC	Mount	MT	Springs	SPGS
Central	CTR'L	Government	GOV'T	Mountain	NAVTEQ CONV	Square	SQU
Chicken	CKN	Green	GRN	Mountains	MTS	Stadium	STD
Children's	CHLDRN'S	Group	GRP	Municipal	MUNI	State	ST
Church	CH	Grove	GRV	Museum	MSM	State Historical Park	SHP
Circle	CIR	Harbor	HBR	National	NAT'L	State Park	SP
Civil	CVL	Heritage	HRTG	Natural	NAT	Station	STN
Cliffs	CLFS	High School	HS	Naval Air Station	NAS	Stream	STRM
College	COL	Hills	HLS	North	N	Suites	STS
Commerce	COM	Historical	HIST'L	Organization	ORG	Summit	SMT
Commercial	COM'L	History	HIST	Park	PK	System	SYS
Company	CO	Hospital	HOSP	Place	PL	Tabernacle	TBRNCL
Conference	CONF	Hotel	HTL	Plains	PLNS	Technical	TECH
Conservatory	CONS	House	HSE	Plaza	PLZ	Tours	TRS
Convention	CONV	Information	INFO	Port	PRT	Trail	TRL

U.S. Naming Rules Approved Abbreviations for Names Greater than 35 Characters

Corporation	CORP	Institute	INST	Point	NAVTE-QCONV	Train	TRN
Country	CNTRY	International	INT'L	Precinct	PRCT	Tunnel	TNL
Country Club	CC	Interpretive	INTERP	Quarter	QTR	University	UNIV
County	CNTY	Interstate	INTST	Railroad	RR	Village	VLG
Creek	CRK	Island	IS	Ranger Sta-tion	RS	Valley	VLY
Department	DEPT	Junction	JCT	Recreation	REC	Washington	WASH
Development	DVLP'T	Junior High School	JRHS	Region	REG	Wells	WLS
Division	DIV	Knolls	KNLS	Regional	REG'L	West	W
Downtown	DNTWN	Lake	NAVTEQ CONV	Reservation	RES	White	WH

Table B-3

B.1.4 Naming Rules for Specific Features

RDS-TMC Code

The RDS-TMC code is published in the format: ABCCDEEEEE, where:

A	is the one character Direction of Road. This is based on the Direction of Travel on the link. "+" is the direction from the ***From Node***. "-" is the direction towards the ***From Node***.
B	is the one character EBU Country Code. Note: EBU are defined for European Countries. There are no official EBU codes for Canada and the U.S. NAVTEQ has defined "C" for Canada and "1" for the U.S.
CC	is the two digit Location Table number.
D	is the one character RDS direction, where: + is in the positive direction and external to the Problem Location. - is in the negative direction and external to the Problem Location. P is in the positive direction and internal to the Problem Location. N is in the negative direction and internal to the Problem Location.
EEEEE	is the five digit Location Code. This has leading zeros if necessary.

Note: RDS-TMC codes do not exist in South Africa.

Ferry Routes (***Feature Type*** = 9999999)

- When a boat or rail ferry is named, the name is applied to each link that comprises the route. When the route itself has no name, the name of the ports connecting the two ends of the ferry route (e.g., Vlissingen-Breskens), or an E-route number when the ferry connects two countries, is applied.

Frontage Roads (***Feature Type*** = 9999999)

- When the name of the frontage road is supplied by source material, that name is applied to the road.

- Route names applied to frontage roads have no *Named Route Type* information unless there are posted route type signs. Additionally, if no *Named Route Type* is applied to a highway name on the frontage road then any directional in the name (N, S, E, W) is applied as a Suffix.

- Frontage Roads-North America
  - When the name of the frontage road cannot be determined from the source material, all the names and route numbers assigned to the associated main road are applied to the frontage road, as shown in *Figure B-4.*

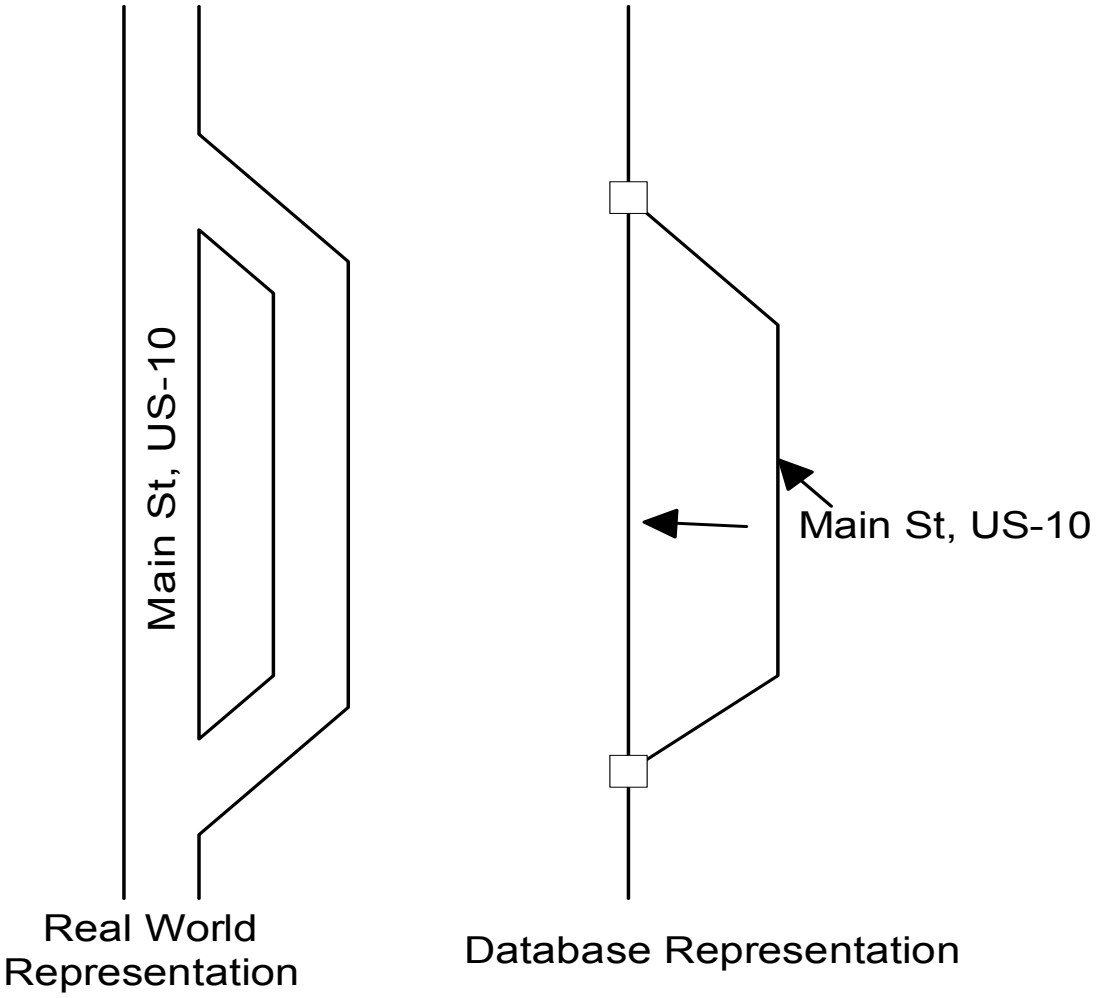


Figure B-4

- Frontage Roads-Europe
  - In Europe, route numbers are generally not assigned to frontage roads.
  - When the name of the frontage road cannot be determined from the source material, only the non-route road name assigned to the associated main road is applied to the frontage road, as shown in *Figure B-5.*

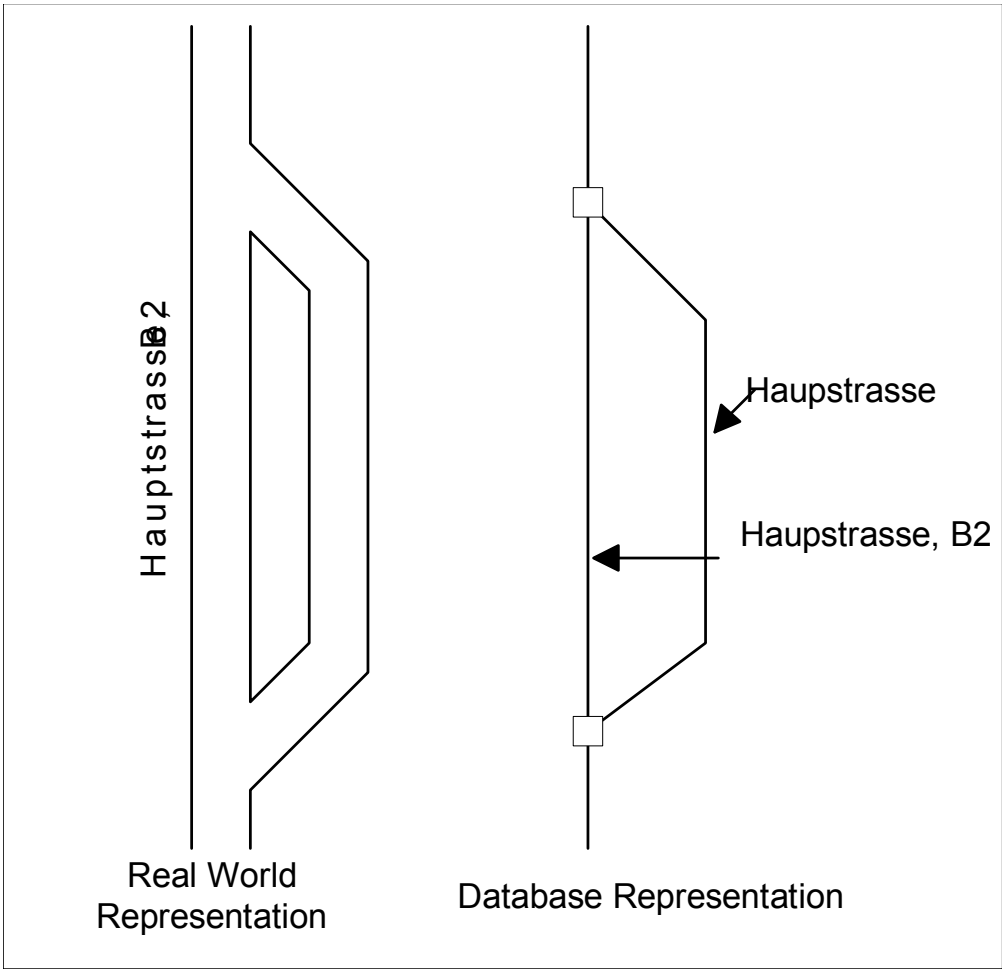


Figure B-5

Intersection Internal Links (***Feature Type*** = 9999999)

- If the name of a road is the same on both sides of an Intersection Internal link, that road name is applied to the intersection internal link, as shown in *Figure B-6*.

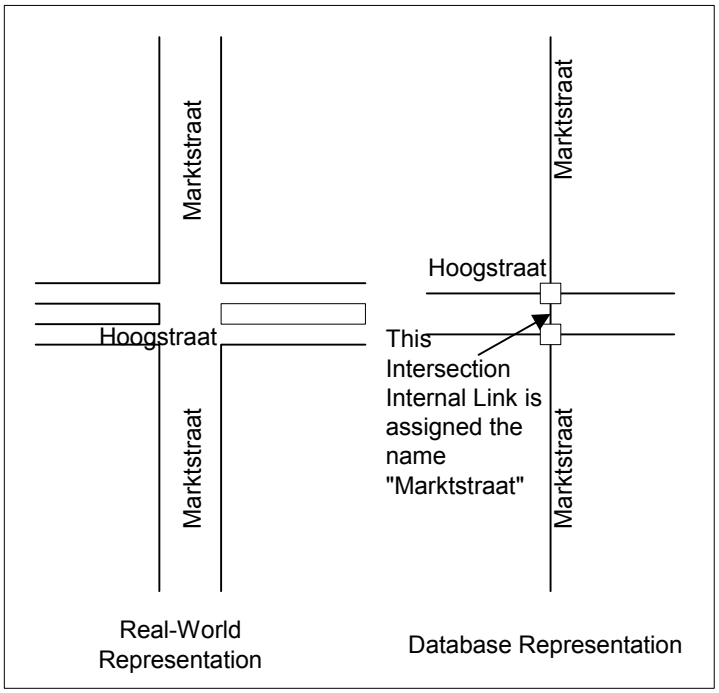


Figure B-6

- If, however, the name of the road is different on both sides of the intersection, as illustrated in *Figure B-7*, the intersection internal link remains unnamed.

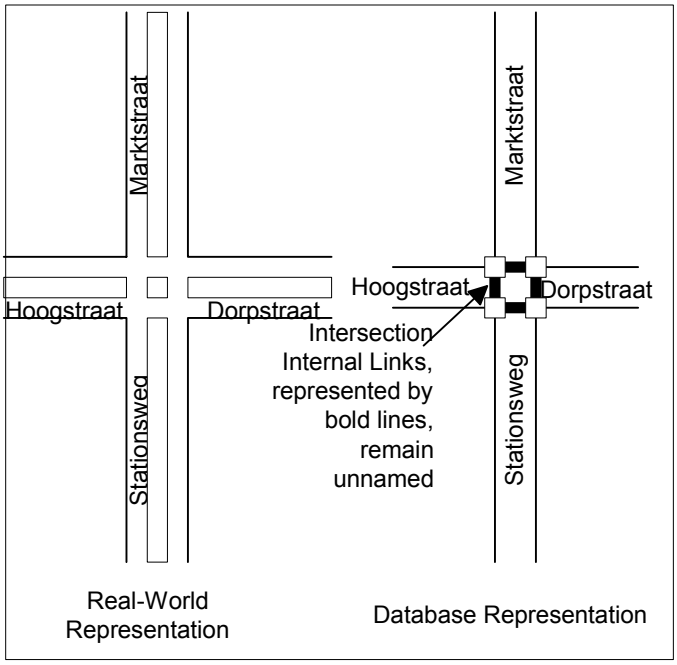


Figure B-7

- *Figure B-8* provides examples of how names are applied to intersection internal links. Examples 2 and 4 are unnamed because of the change in the name*.*

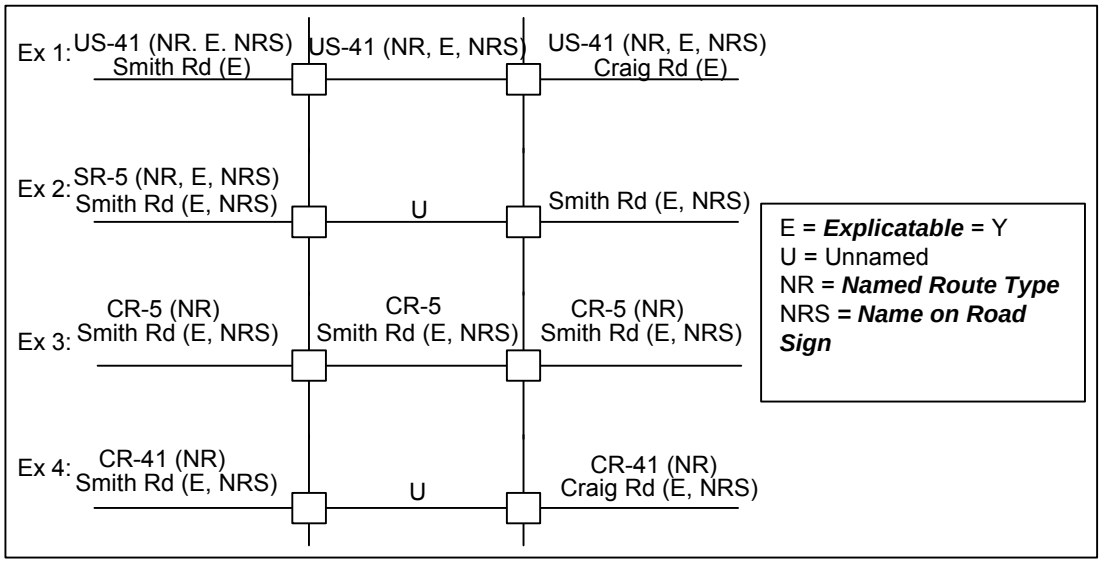


Figure B-8

Manoeuvre (***Feature Type*** = 9999999)

- When a road ends with two splitters, the links of the splitters are named. If a road were to have one turn lane that link is unnamed. *See Figure B-9.*

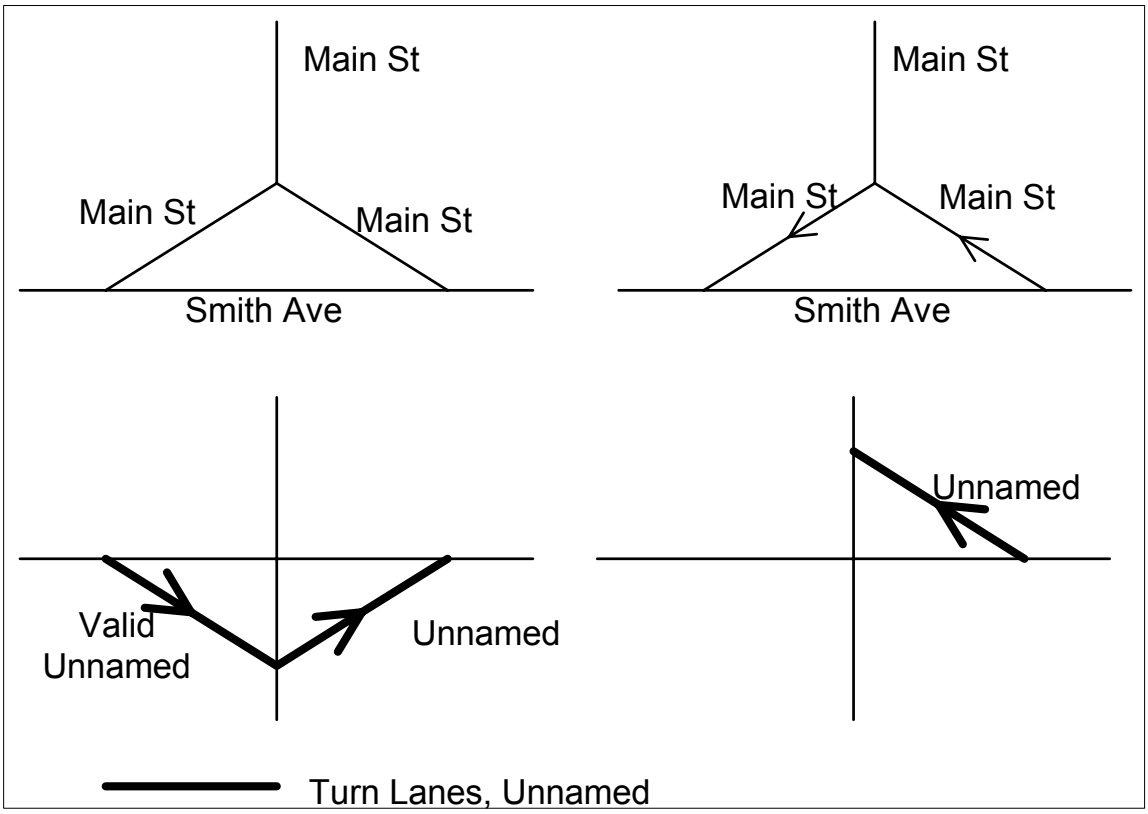


Figure B-9

Ramps (***Feature Type*** = 9999999)

- Ramps are named with the Exit Number and/or the Junction Name from a posted sign. If neither an Exit Number nor a Junction Name exists, the ramp is unnamed.

Route Numbers (***Feature Type*** = 9999999)

- The appropriate Route Number is applied for each numeric or alphanumeric route. See *Table 6-10*.
- For a list of standard naming convention for all Route Numbers, see *Figure B-3*. For example, in Europe the convention is to use E# for all European Route Numbers.
- For standard naming conventions for the U.S. State Routes. See *Table 6-10*.

Mountain Passes (***Feature Type*** = 9999999)

- In Europe only, the names of mountain passes are entered on short links of about 200 metres/656 feet, with the middle of the link at the location of the pass on the map.

Rest Areas (***Feature Type*** = 9999999)

- Rest Area roads are unnamed. Even if the Rest Area has a name (i.e. Lincoln Oasis), the links will be unnamed.

Roundabouts and Special Traffic Figures (***Feature Type*** = 9999999)

- If a Roundabout or a Special Traffic Figure is named, that name is applied to each Link that comprises the Roundabout or Special Traffic Figure, as shown in *Figure B-10*, otherwise the links are coded as unnamed.

- The names or route numbers of the streets that connect to the Roundabout or Special Traffic Figure are not included except when necessary for addressing.

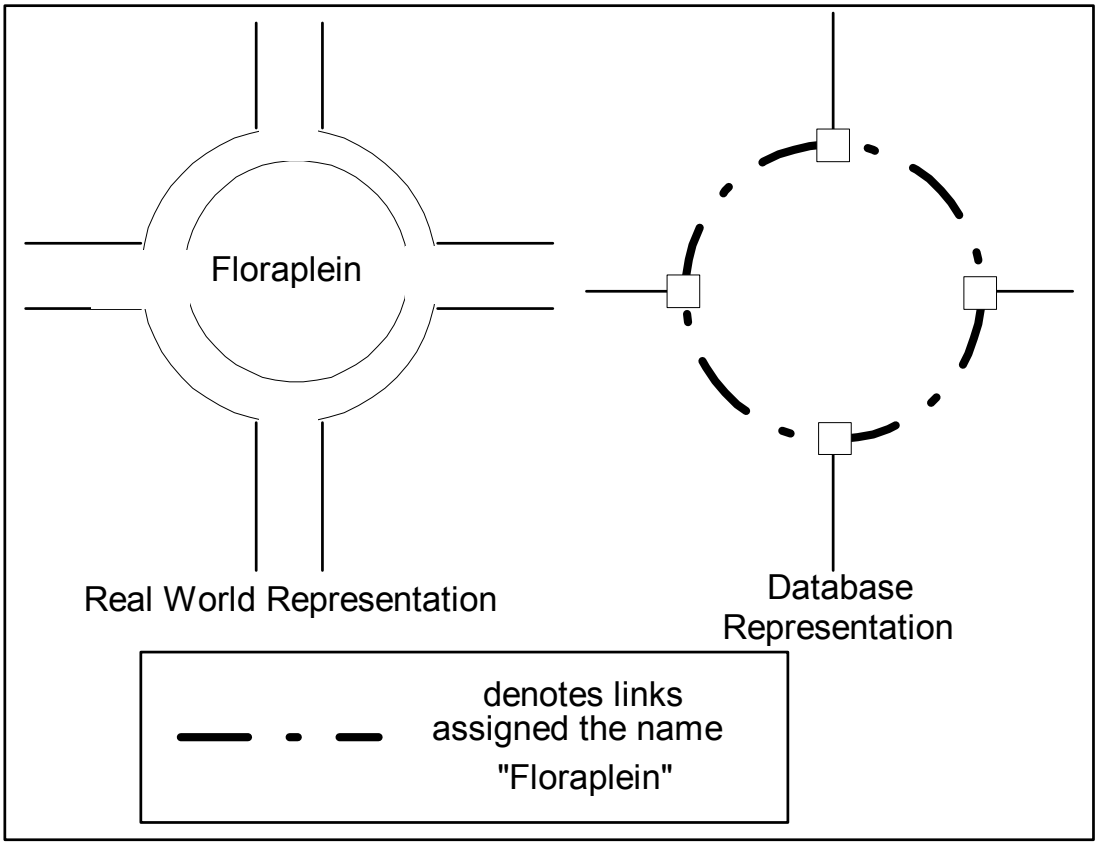


Figure B-10

POI Access Roads (***Feature Type*** = 9999999)

- POI access roads are generally unnamed.

Turn Lanes and U-Turn Lanes (***Feature Type*** = 9999999)

- A name is not assigned to turn lanes or U-turn lanes, as shown in *Figure B-11* and *Figure B-12*. The only exception is when there are addresses present.

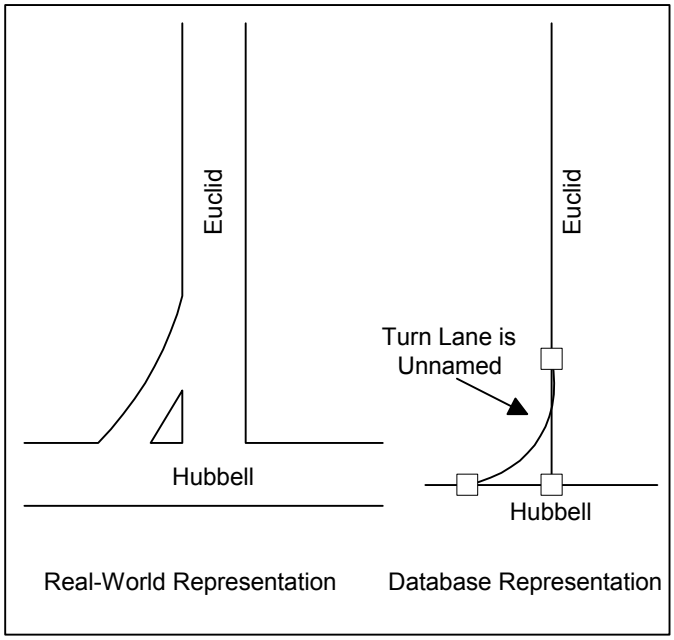


Figure B-11

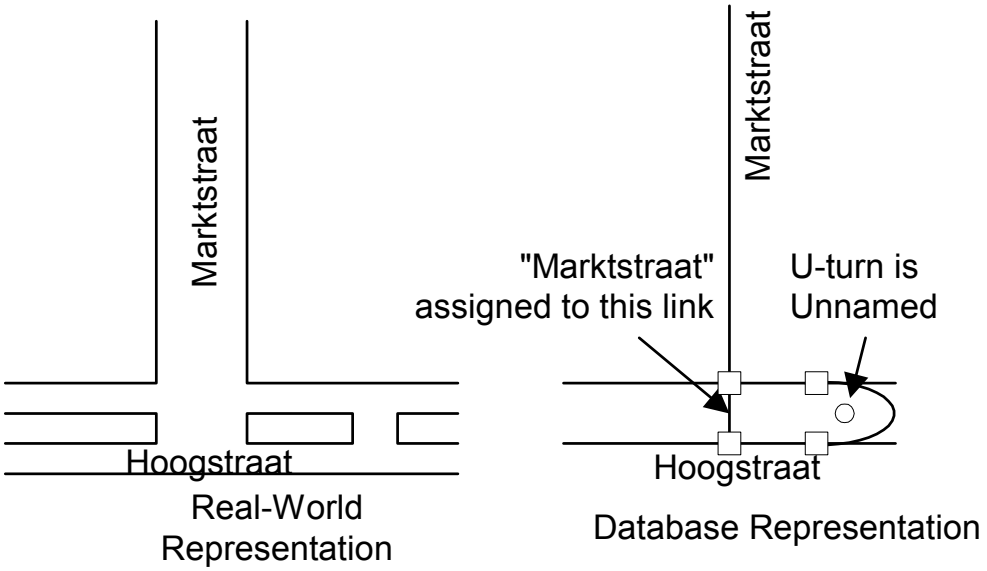


Figure B-12

Undefined Traffic Areas (***Feature Types***: 9999999 (internal links) and 0900159 (polygon links))

- If an Undefined Traffic Areas (UTA) is named, that name is applied to each link within the UTA and the UTA polygon, as shown in *Figure B-13*. If the Undefined Traffic Area is unnamed, no name is applied to each link within the UTA or to the UTA polygon.

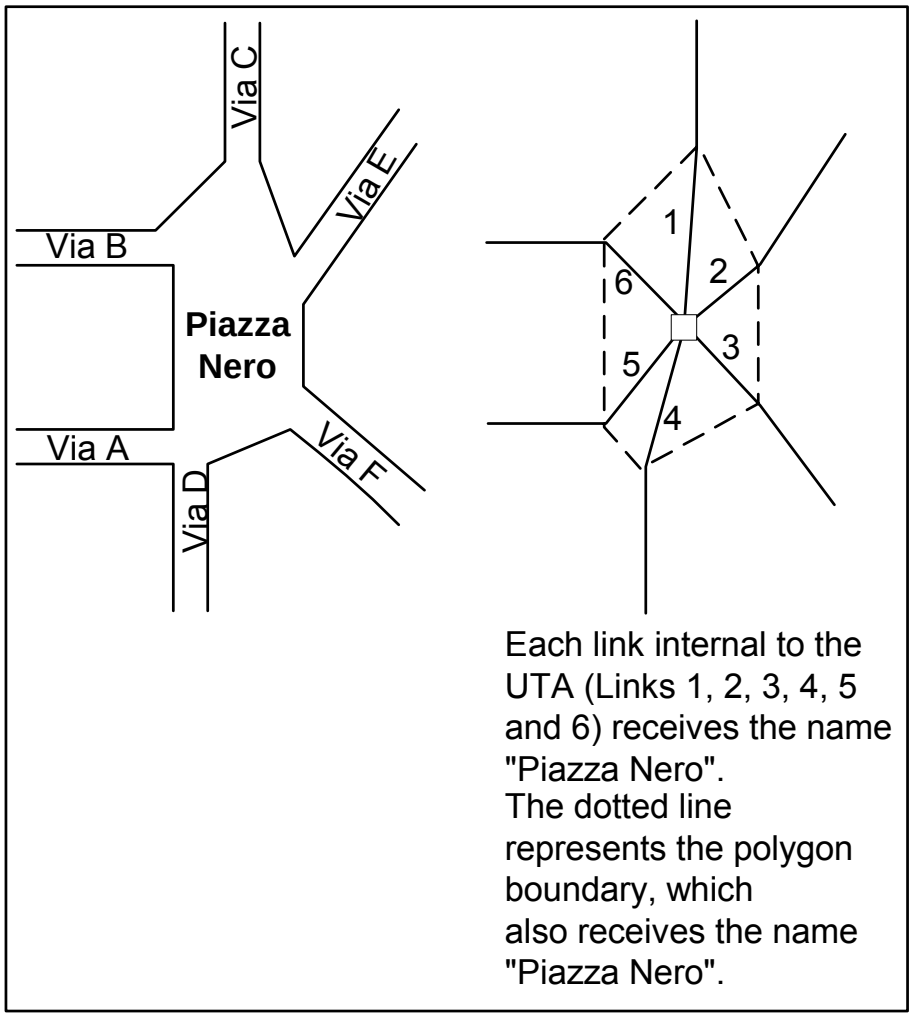


Figure B-13

Roads within Airports (***Feature Type*** = 9999999)

- Posted street names within the airport are coded with ***Explicatable*** = Y and ***Name On Road Sign*** = Y.
- If no posted street names exist, the links are unnamed.

Express, High Occupancy Vehicle (HOV) or Bus Lanes (***Feature Type*** = 9999999)

- When Express, HOV or Bus lanes are digitised separately from the main links of a controlled access road, the appropriate local term (“EXPRESS”, “HOV”, “BUS”) is included in the Feature Name for each Link to differentiate these

lanes from the main part of the roadway. Also, “LN” is applied in the Street Type field. For example:

Feature Name	Kennedy Express	I-10 HOV	I-94 BUS
Street Type	LN	LN	LN
Route Type	N/A	N/A	N/A

Unnamed Roads Added for Connectivity (***Feature Type*** = 9999999)

- If it is determined from all source material that the link is not named, the link remains unnamed in the database.

- A name is applied for an unnamed connector road leading to named roads within apartment complexes, etc., based on the name of the apartment complex or other relevant signs. If unnamed road(s) connect a named road to an entrance ramp, no name is created for the unnamed road(s). In France, name information found on “Lieux-dits” is not included.

Oceans (***Feature Type*** = 0500116)

- The ocean polygon receives the ocean name in the corresponding country’s language. For the Pacific Ocean off the coast of California, the name would be “Pacific Ocean” with ENG as the language code.

- If there is a nearby country, the ocean polygon geometry will coincide with that country’s land mass. However, the nearby administrative names will not be added to the ocean links.

Administrative Features (***Feature Types*** = 0907196, 0909996, 0900170, 0900101, 0900156)

- See *Section C.2, Administrative Features* for specific rules.

Cartographic Country Boundary Feature (***Feature Type*** = 0908000)

- See *Section C.2.2, Cartographic Country Boundary* for specific rules.

Cartographic State/Province Boundary Feature (***Feature Type*** = 0908001)

- See *Section C.2.3, Cartographic State/Province Boundary* for specific rules.

Building/Landmark Polygons (***Feature Types*** = 2009000, 2009001, 2009002, 2009003, 2009004, 2009005, 2009006, 2009007, 2009008, 2009009, 2009010, 2009011, 2009012, 2009013).

- See *Page 10-20* for descriptions and rules for these ***Feature Types***.

(This page intentionally left blank)

Appendix C
Administrative/Zone Rules

(This page intentionally left blank)

C.1 Introduction

This chapter contains the rules for administrative and zone coding.

This chapter contains the following sections:

- Administrative Features
- Zones
- Administrative Level Coding and Boundary Features

C.2 Administrative Features

C.2.1 Administrative Area Level 1

Feature Type 0907196

Description Country

Rules Administrative Boundary Feature

- ***AA Level 1*** features are linear features.
- Unless otherwise described below, only one ***AA Level 1*** feature exists in a database. For example ***AA Level 1*** feature for Canada does not appear in a SIF+ of the U.S. even though they physically share borders. Exception to this are as follows:
  - In Europe, two ***AA Level 1*** features exist in a SIF on the boundary link, if there is a country fully contained within another country (in the NAVTEQ products). For example, the Vatican City exists fully within Italy. Therefore, the SIF+ for Italy has two ***Country*** features on the Vatican City border.
  - In Canada, the U.S. feature also exists for the portions of the U.S./ Canadian border that connect Point Roberts, WA and the Red Lake Indian Reservation in Minnesota to Canada. The remainder of the border only represents Canada. See *Figure C-1* for the representation of Point Roberts.

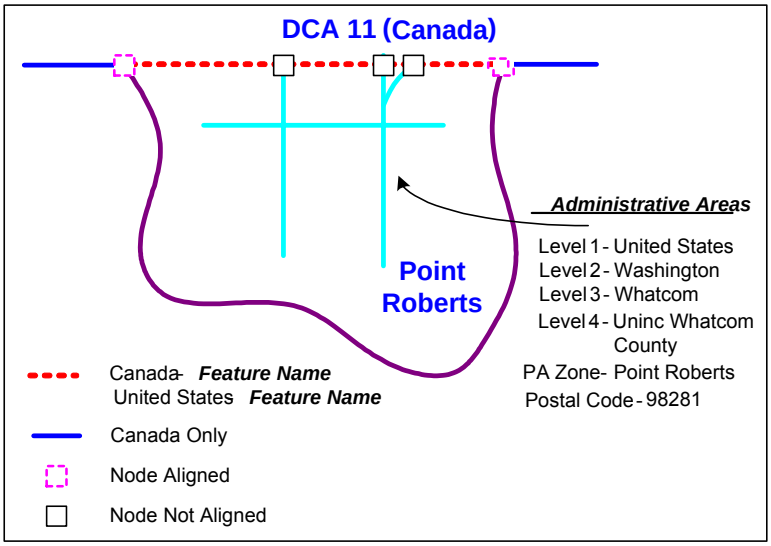


Figure C-1

- In countries with multiple official languages, multiple features are published for ***AA Level 1*** if the names are different for each language. See *Table C-1* and *Table C-2* for Feature Names published for each country.

  Note: The feature with the default ***Language Code*** is always published first.

.

Feature Name (for Feature Type 0907196) per Country

Country	Feature Names for Feature Type = 0907196	Language Code(s)
Albania	SHQIPËRIA	ALB
Andorra	ANDORRA	CAT
Argentina	ARGENTINA	SPA
Australia	AUSTRALIA	ENG
Austria	ÖSTERREICH	GER
Bahrain	BAHRAIN	ENG
Belarus	BELARUS'[1]	BEX
Belgium	BELGIË BELGIQUE BELGIEN	DUT FRE GER
Bosnia and Herzegovina	BOSNA I HERCEGOVINA	BOS
Botswana	BOTSWANA	ENG
Brazil	BRAZIL	POR
Brunei	BRUNEI	MAY
Bulgaria	BALGARIYA[1]	BUX
Canada	CANADA	ENG
Channel Islands	CHANNEL ISLANDS LES ÎLES ANGLO-NORMANDES	ENG FRE
China[2]	ZHONG GUO	PYN
Croatia	HRVATSKA HRVATSKA[1]	SCR CRX
Czech Republic	CESKA REPUBLIKA CESKA REPUBLIKA	CZE CZX
Denmark	DANMARK	DAN
England	ENGLAND	ENG
Estonia	EESTI VABARIIK	EST
Finland	SUOMI FINLAND	FIN SWE
France	FRANCE	FRE

Feature Name (for Feature Type 0907196) per Country (Continued)

Country	Feature Names for Feature Type = 0907196	Language Code(s)
Germany	DEUTSCHLAND	GER
Gibraltar	GIBRALTAR	ENG
Greece[2]	ELLADA ELLADA[1]	GRT GRX
Hongkong-China	HONGKONG	ENG
Hungary	MAGYARORSZÁG MAGYARORSZÁG[1]	HUN HUX
India	INDIA	ENG
Indonesia	INDONESIA	IND
Ireland	IRELAND	ENG
Isle of Man	ISLE OF MAN	ENG
Italy	ITALIA	ITA
Jordan[2]	JORDAN	ENG
Kuwait[2]	KUWAIT	ENG
Latvia	LATVIJAS REPUBLIKA	LAV
Lesotho	LESOTHO	ENG
Liechtenstein	LIECHTENSTEIN	GER
Lithuania	LIETUVA	LIT
Luxembourg	LUXEMBOURG LUXEMBURG	FRE GER
Macau-China[2]	MACAU-CHINA	POR
Macedonia[2]	MAKEDONIJA[1]	MAX
Malaysia	MALAYSIA	MAY
Mexico	MEXICO	SPA
Moldova	MOLDOVA	MOL
Monaco	MONACO	FRE
Montenegro	MONTENEGRO	MNE
Namibia	NAMIBIA	ENG
Netherlands, The	NEDERLAND	DUT
New Zealand	NEW ZEALAND	ENG
Northern Ireland	NORTHERN IRELAND	ENG
Norway	NORGE	NOR

Feature Name (for Feature Type 0907196) per Country (Continued)

Country	Feature Names for Feature Type = 0907196	Language Code(s)
Oman	OMAN	ENG
Poland	POLSKA POLSKA[1]	POL POX
Portugal	PORTUGAL	POR
Puerto Rico	PUERTO RICO	SPA
Qatar	QATAR	ENG
Romania	ROMANIA	RUM
Russia[2]	ROSSIYA[1]	RUX
San Marino	SAN MARINO	ITA
Saudi Arabia[2]	SAUDI ARABIA	ENG
Scotland	SCOTLAND	ENG
Serbia[2]	SRBIJA SRBIJA[1]	SCT SCX
Singapore	SINGAPORE	ENG
Slovak Republic	SLOVENSKA REPUBLIKA SLOVENSKA REPUBLIKA	SLO SLX
Slovenia	SLOVENIJA SLOVENIJA[1] SLOVENIA SZLOVÉNIA	SLV SIX ITA HUN
South Africa	SOUTH AFRICA	ENG
Spain	ESPAÑA ESPAINIA ESPANYA	SPA BAQ CAT
Swaziland	SWAZILAND	ENG
Sweden	SVERIGE	SWE
Switzerland	SUISSE SCHWEIZ SVIZZERA	FRE GER ITA
Taiwan[2]	TAIWAN	ENG
Thailand[2]	THAILAND	ENG
Turkey[2]	TÜRKIYE	TUX
Ukraine[2]	UKRAJINA UKRAYINA[1]	UKT UKX
United Arab Emirates[2]	UNITED ARAB EMIRATES	ENG

Feature Name (for Feature Type 0907196) per Country (Continued)

Country	Feature Names for Feature Type = 0907196	Language Code(s)
United States	UNITED STATES	ENG
U.S. Virgin Islands	U.S. VIRGIN ISLANDS	ENG
Vatican City State	STATO DELLA CITTÀ DEL VATICANO	ITA
Wales	WALES CYMRU	ENG WEL

1. Name is a transliterated representation. There can be a slight variation in the actual published name. A look-aside file contains the name in equivalent Cyrillic characters. See *Section 45.5, External Unicode File Format* for more details.
2. See *Table C-2* for ***Feature Names*** in the ***Default Language***.

Table C-1

Country	Feature Names for Feature Type = 0907196	Language Code
Belarus	БЕЛАРУСЬ	BLR
Bahrain	البحرين	ARA
Bulgaria	БЪЛГАРИЯ	BUL
China	中国	CHI
Czech Republic	ČESKÁ REPUBLIKA	CZE
Greece	ΕΛΛΑΔΑ	GRE
Hungary	MAGYARORSZÁG	HUN
Jordan	الأردنّ	ARA
Hongkong-China	香港	CHT
Kuwait	الكويت	ARA
Macau-China	澳门。	CHT
Macedonia	МАКЕДОНИЈА	MAC
Oman	عمان	ARA
Qatar	قطر	ARA
Russia	РОССИЯ	RUS
Saudi Arabia	السعودية*	ARA
Serbia	СРБИЈА	SRB
Slovak Republic	SLOVENSKÁ REPUBLIKA	SLO
Taiwan	台灣	CHT
Thailand	สยาม	THA
Turkey	TÜRKIYE	TUR
United Arab Emirates	الإمارات العربية المتحدة	ARA
Ukraine	Україна	UKR

Table C-2

Administrative Coding of a Link

- The Country level is coded for all links.
- In Europe, the ***Left*** and ***Right Area IDs*** are different on a boundary link if that country is fully contained within another country (in the NAVTEQ products). For example, Vatican City exists fully within Italy. Therefore, the SIF for Italy has different ***Left*** and ***Right Area IDs*** on the Vatican City border link.
- In Canada, the portions of the U.S./Canadian border that connect Point Roberts, WA and the Red Lake Indian Reservation in Minnesota to Canada, have different Left and Right Area ID to represent the two countries respectively. The remainder of the border only represents Canada. See *Figure C-1*.
- In all other cases, the ***Left*** and ***Right Area IDs*** are the same on a country border link. For example, in a SIF of Canada, the ***Left*** and ***Right Area IDs*** are identical on the country border with the U.S.; there is no U.S. Administrative Coding in the Canadian database for any link.

C.2.2 Cartographic Country Boundary

Feature Type 0908000

Description Cartographic Country Boundary

Usage ***Cartographic Country Boundary*** can be used to display the Country boundaries on land between adjacent countries. For example, these are highlighted in red in *Figure C-2*.

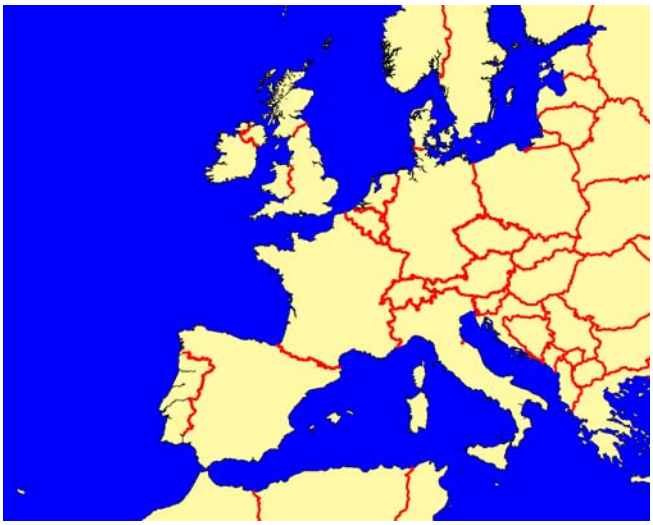


Figure C-2

Rules Cartographic Country Boundary Feature

- ***Cartographic Country Boundary*** features are only coded on links that have the ***Country Boundary*** Feature (***Feature Type*** = 0907196) and no major water features (e.g. oceans, Great Lakes, etc.).
- In countries with multiple official languages, multiple features are coded if the names are different in each language.
- See *Table C-3* for names published for each country. Note however, that for countries that do not share land borders with other countries (e.g., U.S.V.I., Puerto Rico, New Zealand, Macau-China, and Hong Kong-China), no Feature Name for ***Cartographic Country Boundary*** is published.

- *Feature Name (for Feature Type 0907196) per Country*

Country	Feature Names for Feature Type = 0907196	Language Code(s)
Albania	SHQIPËRIA	ALB
Andorra	ANDORRA	CAT
Argentina	ARGENTINA	SPA
Australia	AUSTRALIA	ENG
Austria	ÖSTERREICH	GER
Bahrain	BAHRAIN	ENG
Belarus	BELARUS'[1]	BEX
Belgium	BELGIË BELGIQUE BELGIEN	DUT FRE GER
Bosnia and Herzegovina	BOSNA I HERCEGOVINA	BOS
Botswana	BOTSWANA	ENG
Brazil	BRAZIL	POR
Bulgaria	BALGARIYA[1]	BUX
Canada	CANADA	ENG
Channel Islands	CHANNEL ISLANDS LES ÎLES ANGLO-NORMANDES	ENG FRE
China[2]	CHINA	PYN
Croatia	HRVATSKA HRVATSKA[1]	SCR CRX
Czech Republic	CESKA REPUBLIKA CESKA REPUBLIKA	CZE CZX
Denmark	DANMARK	DAN
England	ENGLAND	ENG
Estonia	EESTI VABARIIK	EST
Finland	SUOMI FINLAND	FIN SWE
France	FRANCE	FRE
Germany	DEUTSCHLAND	GER
Gibraltar	GIBRALTAR	ENG
Greece	ELLADA ELLADA[1]	GRT GRX
Hongkong-China	HONGKONG	ENG

Feature Name (for Feature Type 0907196) per Country (Continued)

Country	Feature Names for Feature Type = 0907196	Language Code(s)
Hungary	MAGYARORSZÁG MAGYARORSZÁG[1]	HUN HUX
India	INDIA	ENG
Ireland	IRELAND	ENG
Isle of Man	ISLE OF MAN	ENG
Italy	ITALIA	ITA
Kuwait	KUWAIT	ENG
Latvia	LATVIJAS REPUBLIKA	LAV
Lesotho	LESOTHO	ENG
Liechtenstein	LIECHTENSTEIN	GER
Lithuania	LIETUVA	LIT
Luxembourg	LUXEMBOURG LUXEMBURG	FRE GER
Macau-China	MACAU-CHINA	CHT
Macedonia	MAKEDONIJA[1]	MAX
Malaysia	MALAYSIA	MAY
Mexico	MEXICO	SPA
Moldova	MOLDOVA	MOL
Monaco	MONACO	FRE
Namibia	NAMIBIA	ENG
Netherlands, The	NEDERLAND	DUT
Northern Ireland	NORTHERN IRELAND	ENG
Norway	NORGE	NOR
Oman	OMAN	ENG
Poland	POLSKA POLSKA[1]	POL POX
Portugal	PORTUGAL	POR
Puerto Rico	PUERTO RICO	SPA
Qatar	QATAR	ENG
Romania	ROMANIA	RUM
Russia	ROSSIYSKAYA FEDERATSIYA[1]	RUX
San Marino	SAN MARINO	ITA

Feature Name (for Feature Type 0907196) per Country (Continued)

Country	Feature Names for Feature Type = 0907196	Language Code(s)
Saudi Arabia	SAUDI ARABIA	ENG
Scotland	SCOTLAND	ENG
Serbia and Montenegro	SRBIJA I CRNA GORA SRBIJA I CRNA GORA[1]	SCT SCX
Singapore	SINGAPORE	ENG
Slovak Republic	SLOVENSKA REPUBLIKA SLOVENSKA REPUBLIKA	SLO SLX
Slovenia	SLOVENIJA SLOVENIJA[1] SLOVENIA SZLOVÉNIA	SLV SIX ITA HUN
South Africa	SOUTH AFRICA	ENG
Spain	ESPAÑA ESPAINIA ESPANYA	SPA BAQ CAT
Swaziland	SWAZILAND	ENG
Sweden	SVERIGE	SWE
Switzerland	SUISSE SCHWEIZ SVIZZERA	FRE GER ITA
Taiwan	TAIWAN	CHT
Thailand	THAILAND	THA
Turkey	TÜRKIYE	TUR
Ukraine	UKRAJINA UKRAYINA[1]	UKT UKX
United Arab Emirates	UNITED ARAB EMIRATES	ENG
United States	UNITED STATES	ENG
U.S. Virgin Islands	U.S. VIRGIN ISLANDS	ENG
Vatican City State	STATO DELLA CITTÀ DEL VATICANO	ITA
Wales	WALES CYMRU	ENG WEL

1. Name is a transliterated representation. There can be a slight variation in the actual published name. A look-aside file contains the name in equivalent Cyrillic characters.
2. Refer to China specific documents for more details on Feature Name.

Table C-3

- Since ***Cartographic Country Boundary*** features are always coded on links with ***Country Boundary*** Feature (***Feature Type*** = 0907196), the rules for administrative coding is the same as for ***Country Boundary*** features.

C.2.3 Cartographic State/Province Boundary

Feature Type 0908001

Description Cartographic State/Province Boundary

Usage ***Cartographic State/Province Boundary*** can be used to display the State/ Province boundaries on land between adjacent states and provinces in the U.S., Canada, and Australia.

Rules Cartographic Country Boundary Feature

- ***Cartographic State/Province Boundary*** features are coded on links that have the ***State Boundary*** Feature (***Feature Type***=0909996) and no major water features (e.g. oceans, Great Lakes, etc.).

Administrative Coding of a Link

- Since ***Cartographic State/Province Boundary*** features are always coded on links with the ***State*** Feature (***Feature Type*** = 0909996), the rules for administrative coding is the same as for ***State Boundary*** features.

C.2.4 Administrative Area Level 2

Feature Type Varies by Country, see *Section C.4, Administrative Level Coding and Boundary Features*

Description Varies by Country, see *Section C.4, Administrative Level Coding and Boundary Features*.

- ***AA Level 2*** features are linear features.
- Two ***AA Level 2 Features*** exists for every boundary link in the database at this level. However, if the boundary represents the edge of the database, only one ***AA Level 2 Feature Name*** exists.
  - For example, on the Oregon and Californian border, California is published as the ***AA Level 2 Feature Name*** in DCA 1 and Oregon is published as the ***AA Level 2 Feature Name*** in DCA 2.

Administrative Coding of a Link

- The Administrative Level 2 is coded for all links.
- Different ***Left*** and ***Right Area IDs*** exist for every ***AA Level 2*** boundary link in the database at this level except in the case described below:

  The ***Left*** and ***Right Area IDs*** are the same on database boundary links. For example, on a U.S. country border link, the ***Left*** and ***Right Area IDs*** are identical; there is no Canadian administrative coding in the U.S. databases for any link.

C.2.5 Administrative Area Level 3

Feature Type Varies by Country, see *Section C.4, Administrative Level Coding and Boundary Features*

Description Varies by Country, see *Section C.4, Administrative Level Coding and Boundary Features*

Rules

Administrative Boundary Feature

- Two ***AA Level 3 Feature Names*** exist for every boundary link in the database at this level. However, if the boundary represents the edge of the database, only one ***AA Level 3 Feature Name*** exists.

- ***AA Level 3*** features are associated with ***Polygon IDs***. The ***Polygon ID*** can be used to generate polygons.

  For example, a NAVSTREETS source data file format (SIF+) of the U.S. that ends at the border with Canada, only contains the information for the U.S. levels. Canadian boundary features are not included.

Administrative Coding of a Link

- The Administrative Level 3 is coded for all links.

- If duplicate addresses exist at a lower level (such as ***AA Level 4*** or ***AA Level 5***), the higher level (***AA Level 3***) may be needed for a refined address resolution.

- In the U.S. where ***AA Level 3*** = County, there are independent cities such as Baltimore, MD, St Louis, MO, Carson City, NV, etc., which are not officially in any ***AA Level 3***. In these cases, "(city)" is specified in the ***AA Level 3*** name.

  For example, the city of Baltimore would be published as:

  AA Level 4 Feature for Baltimore, with Government Code of 4000 ***AA Level 3 Feature*** for Baltimore (city), with Government Code of 510

  However, do not confuse this ***AA Level 3 Feature*** with the county of Baltimore (Gov Code = 5). See *Figure C-3*.

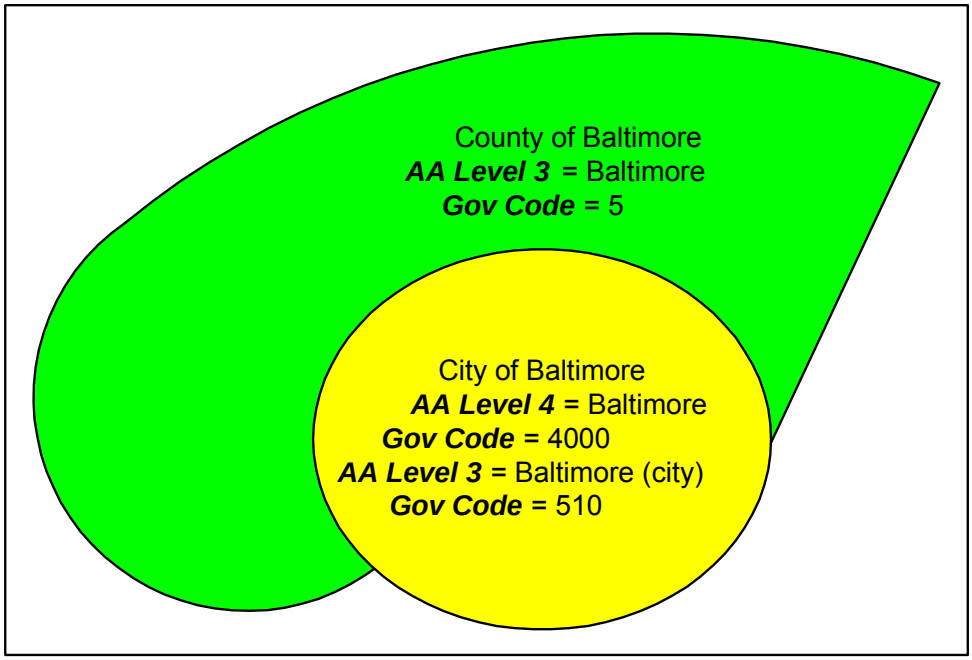


Figure C-3

- Different ***Left*** and ***Right Area IDs*** exist for every ***AA Level 3*** boundary link in the database at this level except in the case of database boundary links.

- The ***Left*** and ***Right Area IDs*** are the same on database boundary links, regardless of whether or not the adjacent country is part of the NAVTEQ product set. For example, on a U.S. country border link the ***Left*** and ***Right Area IDs*** are identical; there is no Canadian administrative coding in the U.S. databases for any link.

- In the Republic of Ireland where ***AA Level 3*** = Post Town, a number of Post Towns span multiple Counties. For example, the Post Town of Carlow spans the following: County Wicklow, County Kildare, County Kilkenny, County Carlow, and County Laois. See *Figure C-4*.

  The administrative coding reflects this situation.

  For example:

  - Country: Ireland

    Post County: County Carlow

    Post Town: **Carlow**

    Locality: Agha

  - Country: Ireland

Post County: County Laois

Post Town: **Carlow**

Locality: Ardateggle

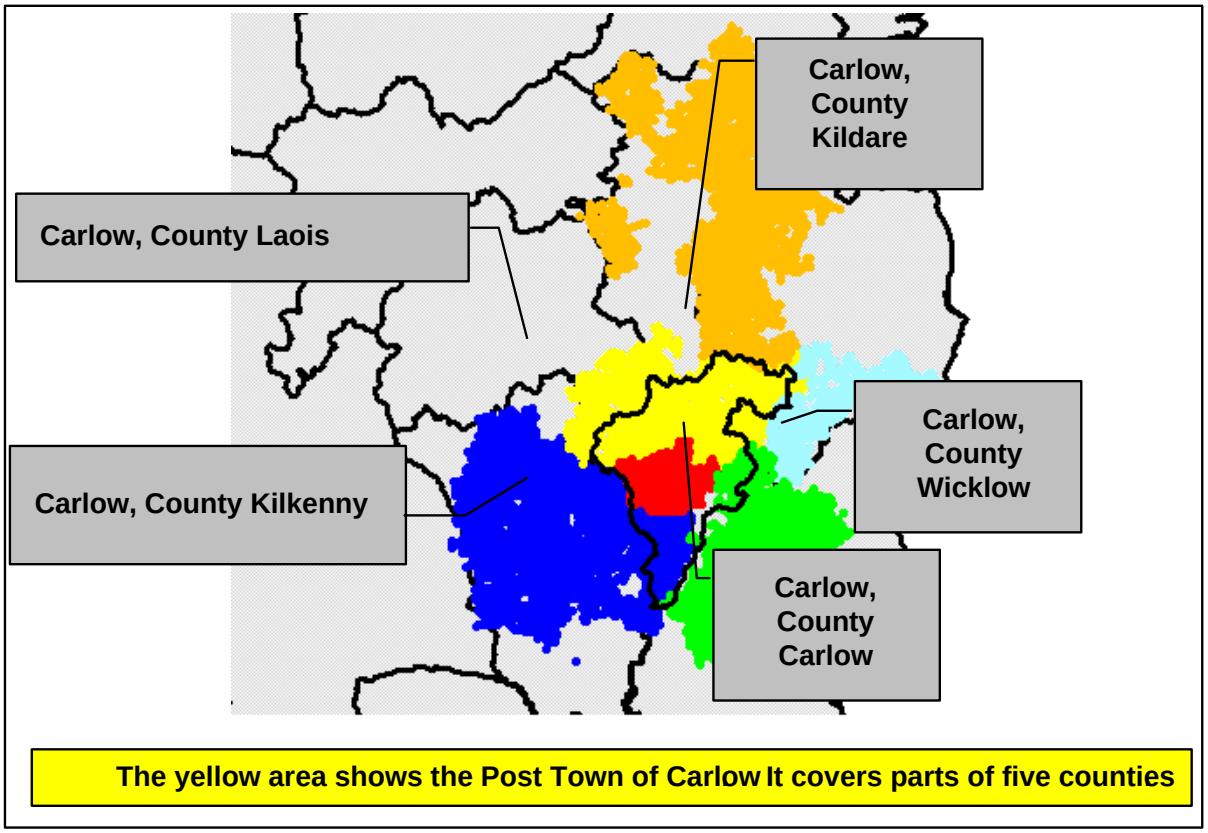


Figure C-4

C.2.6 Administrative Area Level 4

Feature Type Varies by Country, see *Section C.4, Administrative Level Coding and Boundary Features*

Description Varies by Country, see *Section C.4, Administrative Level Coding and Boundary Features*

Rules Administrative Boundary Feature

- ***AA Level 4*** features are associated with ***Polygon IDs***. The ***Polygon ID*** can be used to generate polygons.
- This feature exists in Detailed City Areas, Inter-Town, In-Process Data, and Connector Road areas (Inter-Town/In-Process Data inclusion is dependent on the particular country).
- When ***AA Level 4*** represents a spanning set of polygonal features, two ***AA Level 4*** Features exist in a SIF for every ***AA Level 4*** boundary link in the database. However, if the boundary is the edge of the database, only one ***AA Level 4*** Feature exists.
- When ***AA Level 4*** represents a non-spanning set of polygonal features (e.g. built-up area boundaries in Europe, South Africa, and Canada), one ***AA Level 4*** feature exists for every ***AA Level 4*** boundary link unless the link is the boundary between two ***AA Level 4*** areas (two ***AA Level 4*** features exist). See *Section C.2.7, Administrative Area Level 5* for more information.
- In administrative areas with multiple official languages, multiple ***Base Names*** are published if the official names are different in each language.

  Note: The ***Base Name*** with the default ***Language Code*** is always published first.
- In the U.S. where ***AA Level 4*** = City, a city may exist in multiple counties. In this case, only one polygon is created to represent the city. For example, Portland, OR exists in 3 counties. However, there is only one polygon for the entire city of Portland.

  Note: Spanning set of polygons for ***AA Level 4*** does not exist in the U.S.
- In the following states, township boundaries exist as ***City Boundaries***:
  - Connecticut
  - New Hampshire
  - New Jersey
  - New York

- Maine (Township coding does not cover 100% of the state.)
- Massachusetts
- Michigan
- Pennsylvania
- Rhode Island
- Vermont
- Wisconsin (Township coding only exists in Detailed City Areas.)

Administrative Coding of a Link

- The Administrative Level 4 is coded for all links.

- When ***AA Level 4*** represents a spanning set of polygonal features, different ***Left*** and ***Right Area IDs*** exist for every ***AA Level 4*** boundary link in the database. However, if the boundary is the edge of the database, the ***Left*** and ***Right Area IDs*** are the same. For example, on a U.S. country border link the ***Left*** and ***Right Area IDs*** are identical; there is no Canadian administrative coding in the U.S. databases for any link.

- When ***AA Level 4*** represents a non-spanning set of polygonal features (e.g. built-up area boundaries in Europe, South Africa, and Canada), the ***Left*** and ***Right Area IDs*** are the same unless the link is the boundary between two ***AA Level 4*** areas (different ***Left*** and ***Right Area IDs*** exist). See *Section C.2.7, Administrative Area Level 5* for more information.

- In administrative areas with multiple official languages, multiple ***Base Names*** are published if the official names are different in each language.

  Note: The ***Base Name*** with the default ***Language Code*** is always published first.

- When additional names exist for an ***AA Level 4*** area, in the official language(s) and/or foreign language(s), these are published as ***Synonym***s and ***Exonyms***, respectively.

- In the U.S., incorporated cities, townships/towns, and unincorporated county areas are coded at this level.

  Note: Unincorporated county administrative information serves as a filler for ***AA Level 4***.

- In the U.S., the "City" level was designed to model incorporated places. However, in some states, there are other legally defined entities called "towns" or "townships" that are similar to incorporated cities. Towns and townships are

both labelled by the U.S. Census Bureau as townships and are treated as cities in the database.

- In states where townships exist, cities and townships form a spanning set of the lowest administrative level. This means whenever you are within any county, you are always within either a township or a city.
- All townships and towns are named using "Twp" or "Town of" e.g., Scotch Plains Twp and Hempstead, Town of.
- Townships exist in the following States:

  Connecticut

  New Hampshire

  New Jersey

  New York

  Maine (Township coding does not cover 100% of the state.)

  Massachusetts

  Michigan

  Pennsylvania

  Rhode Island

  Vermont

  Wisconsin (Township coding only exists in Detailed City Areas.)

  Note: Michigan - Township boundaries are included only in cases where in reality, they are incorporated as a city. If unincorporated, the boundary features are not included because they are not displayed on road maps.

- An AA Level 4 feature may exist in more than one AA Level 3 feature. For instance in the U.S., this is the case when a city spans multiple counties. For example, the city of Portland, OR, exists in three counties.

U.S. Example

The city of Hampstead (Gov Code: 36500) exists in both Carroll county and Baltimore county.

What is published?

- ***AA Level 3 Feature*** for Carroll, with ***Gov Code*** of 13
- ***AA Level 3 Feature*** for Baltimore, with ***Gov Code*** of 5
- Two ***AA Level 4 Features*** for Hampstead (each with its own ***Area ID***, but with the same Gov Code of 36500) are published.
- The two ***AA Level 4 Features*** for Hampstead can be combined based on the same ***Government Code***, as opposed to two separate cities which would have different ***Government Codes***.

- Each ***AA Level 4 feature*** has a corresponding Named Place POI. However, in the case of the one ***AA Level 4*** in multiple ***AA Level 3s***, only one Named Place POI is published.

- Administrative coding for Oceans: The link(s) in the ocean are assigned with the administrative code of the link that is the southern most end point of the coast (land). See *Figure C-5*.

  Note: Due to the consolidation of the links when the seamless regions are created, the administrative coding along the links in the overlap area may differ.

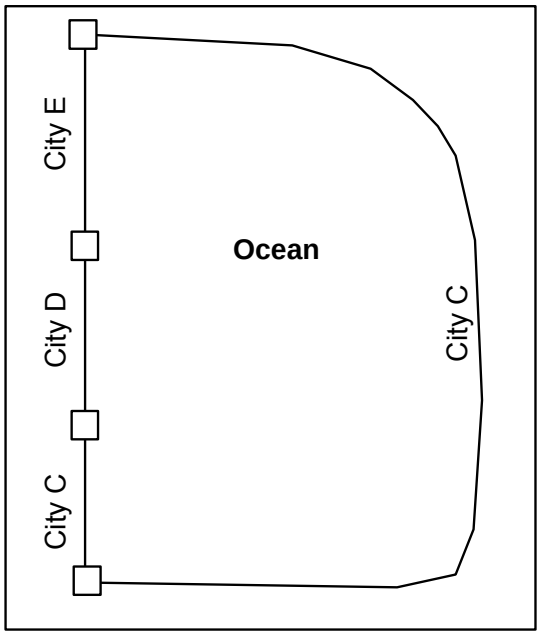


Figure C-5

C.2.7 Administrative Area Level 5

Feature Type Varies by Country, see *Section C.4, Administrative Level Coding and Boundary Features*

Description Varies by Country, see *Section C.4, Administrative Level Coding and Boundary Features*

Rules Administrative Boundary Feature

- ***AA Level 5*** features are associated with ***Polygon IDs***. The ***Polygon ID*** can be used to generate polygons.
- ***AA Level 5*** always represents a non-spanning set of polygonal features (e.g. built-up area boundaries in Europe, South Africa, and Canada). One ***AA Level 5*** feature exists for every ***AA Level 5*** boundary link unless the link is the boundary between two ***AA Level 5*** areas (two ***AA Level 5*** features exist).
- In administrative areas with multiple official languages, multiple ***Base Names*** are published if the official names are different in each language.

  Note: The ***Base Name*** feature with the default ***Language Code*** is always published first.
- When additional names exist for an ***AA Level 5*** area, in the official language(s) and/or foreign language(s), these are published as ***Synonyms*** and ***Exonyms***, respectively.
- In Europe and Canada, these areas are usually clearly defined on commercial maps. The boundary does not reflect an actual administrative boundary.
- In Europe and Canada, built-up areas greater than 250.000 sqaure metres/ 2.700.000 square feet are included. Smaller built-up areas are included where significant. All named settlements are included as built-up area features in South Africa.
- When the same named built-up area is separated by an empty area that is wider than 200 metres/656 feet, two separate polygons are created with the same name.
- A separate built-up area polygon is not created for settlements whose built-up area is completely within the built-up area of the municipality. See *Figure C-6*.

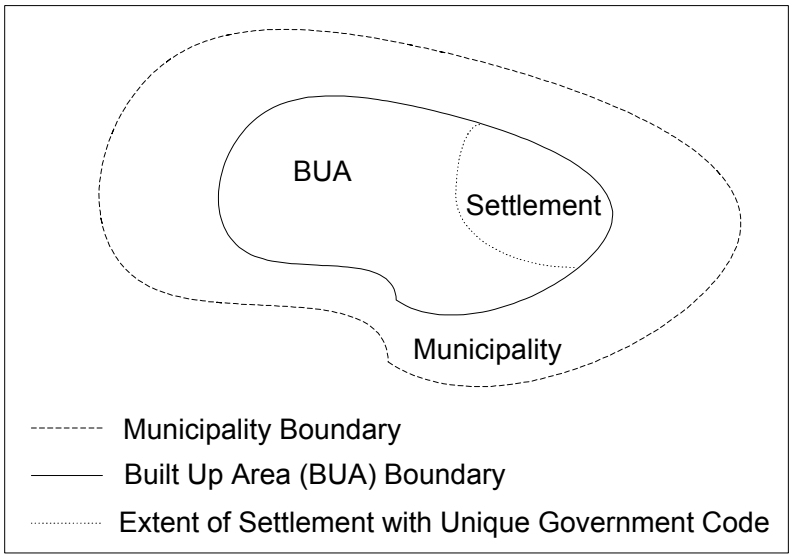


Figure C-6

- Built-up areas that are adjacent to one another are made into separate polygons with the name of the built-up area they represent. See *Figure C-7*.

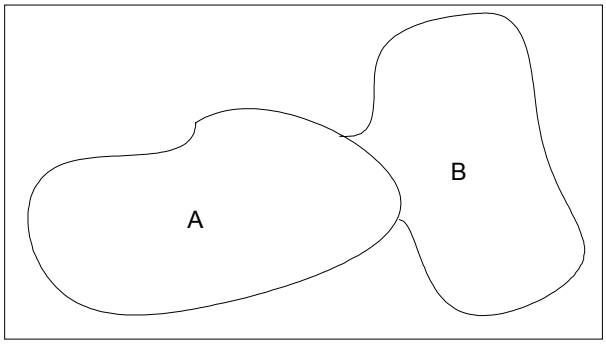


Figure C-7

- Industrial areas are considered part of the built-up areas.
- In the UK, a built-up area can contain more than one Locality, if it is viewed as one built-up area of a particular name.
- In cases where a built-up area cannot be defined because the houses are scattered, no Built-up Area feature is included.
- Built-up area boundaries are generalised.

- Built-up areas are not coded in the U.S., Puerto Rico, and U.S. Virgin Islands, because cities, not Built-up areas, are important for map display in the U.S.

Administrative Coding of a Link

- The Administrative Level 5 is coded for all links.

- Different ***Left*** and ***Right Area IDs*** exist for every ***AA Level 5*** boundary link in the database at this level except in the case described below:

  The ***Left*** and ***Right Area IDs*** are the same on database boundary links. For example, on a U.S. country border link the ***Left*** and ***Right Area IDs*** are identical; there is no Canadian administrative coding in the U.S. databases for any link.

- A built-up area feature may exist in more than one municipality feature. For instance in Germany, this is the case when a settlement spans multiple municipalities.

European Example

The built-up area of Obertauern exists in both the Untertauern municipality and the Tweng municipality.

What is published?

  - ***AA Level 4*** feature for Untertauern, with ***Gov Code*** of 224
  - ***AA Level 4*** feature for Tweng, with ***Gov Code*** of 125
  - Two ***AA Level 5*** features for Obertauern (each with its own ***Area ID***, but with the same ***Gov Code*** of 3008)
  - The two ***AA Level 5*** features for Obertauern can be combined based on the same ***Government Code*** as opposed to two separate cities, which would have different ***Government Codes***.

- Each ***AA 5 Level*** feature has a corresponding ***Named Place*** Point of Interest. However, in the case of the one ***AA Level 5*** feature in multiple ***AA Level 4s***, only one ***Named Place*** POI is published.

C.3 Zones

Feature ***Zones***

Rules General Rules for all Zones

- There are no boundary features for zones.
- Zones identify clearly or fuzzy bounded areas, covering a region having its own commonly used name to identify it. This allows the user of a navigation system to specify a destination when the administrative name is not the sole name commonly used by the general public. Zones are non-hierarchical.
- All zones (***Zone Types*** = PA, KA, or KD) and cities/settlements should be recognised for destination selection. They can also be used for map display and reverse geocoding. For reverse geocoding, Zone Types = PA and KA can be used. Zones in the U.S. can be used for map display.
- In all cases, the zone is an alternate name to the city/settlement name for destination selection. Systems should recognise the association of a link to all of the cities/settlements and zones when allowing destination input.
- Some cities in the U.S. can be entirely covered by a zone.
- Zones are further defined by the ***Zone Type***. ***Zone Type*** can equal PA, KA, or KD.
- Each side of a link may have from 0 to 10 zones associated with it.
- A Named Place POI is included for each zone (exceptions e.g. PA Zones such as O'Hare Airport).
- If there are multiple occurrences of an address within a city/settlement, zones can be used for refined address resolution.

Zone: Postal Area (Zone Type = PA)

- Used in Denmark, Finland, Norway, Sweden, the U.S., Puerto Rico, U.S.V.I., and the Netherlands only
- Postal Area Zones are assigned to areas the postal service designates for mail delivery. They may reflect names of incorporated cities, military bases, unincorporated communities or entities such as O'Hare Airport.
- In the U.S. and Puerto Rico, Postal Area Zones identify the post office which is responsible for the mail delivery in the particular area. (These are also referred

to as Last Line City in the U.S. and Puerto Rico. In the United States Postal Service (USPS) file, the Postal Area is identified by the term "acceptable default".)

- If the PA Zone name matches the city name, no zone is published.
- A link can be associated with more than one PA Zone (i.e. on the border).
- In some cases, residents may refer to their postal area name rather than the city in which they live or they may use the postal area name because they are not located within a city.
- In the U.S. and Puerto Rico, when a Postal Area for a postal code is also a city in multiple counties, only one PA Zone would exist for the city regardless in which county the postal code exists. For instance, the city of Portland exists in three counties. However, there would only be one PA Zone for Portland with the ***Gov Code*** of 59000 for all postal codes that have Portland as the Postal Area.
- In Sweden and Finland, PA Zones are included for the names associated to the postal areas. A zone is only included when its name is different from the Kommun or built-up area name.

Zone: Known As

- The Known As zone types identify what most end-users feel is the "city" name, regardless of whether or not it is the true administrative name. The zone types are:
  - Known As that Replaces Admin (***Zone Type*** = KA)
  - Known As that Does Not Replace Admin (***Zone Type*** = KD)
- The KA and KD information is used when deciding which name to display or return to the user. KA indicates that the zone name should be used in conjunction with the city or built-up area name since that is what is commonly used as the area's name. KD indicates that the ***Zone Name*** should NOT be used when displaying or returning the name back to the user. In the KD situation, the ***Zone Name*** is not used since the boundaries for it may not be clear.
- The ***Named Place*** POI that corresponds to the KA zone is placed within the largest built-up area for that zone. For the KD zone, it is placed logically for that area.
- Known As Zones (either KA or KD zones) are assigned to named places that are significant for destination selection and are not represented in the administrative hierarchy.

- The table below lists the countries and the corresponding ***Known As Zone*** included.

Known As Zone Inclusion

Country	KD Zone	KA Zone	PA Zone
Australia	Yes	N/A	N/A
Belgium	Yes	Yes	N/A
Canada	Yes	Yes	N/A
Denmark	Yes	N/A	Yes
Finland	N/A	N/A	Yes
France	Yes	N/A	N/A
Germany	Yes	Yes	N/A
Hongkong-China	Yes	N/A	N/A
India	Yes	N/A	N/A
Ireland	Yes	N/A	N/A
Italy	N/A	N/A	N/A
Luxembourg	Yes	N/A	N/A
Macau-China	Yes	N/A	N/A
Malaysia	N/A	Yes	N/A
Mexico	Yes	N/A	N/A
Netherlands	Yes	N/A	Yes
Norway	N/A	N/A	Yes
Portugal	Yes	N/A	N/A
Puerto Rico	N/A	N/A	Yes
Russia	Yes	N/A	N/A
Slovenia	Yes	N/A	N/A
South Africa	Yes	N/A	N/A
Spain	N/A	N/A	N/A
Sweden	N/A	N/A	Yes
Switzerland	Yes	N/A	N/A

Known As Zone Inclusion (Continued)

Country	KD Zone	KA Zone	PA Zone
U.K.	Yes	N/A	N/A
U.S.	Yes	Yes	Yes
U.S. Virgin Islands	N/A	N/A	Yes
All Other Countries	N/A	N/A	N/A

Examples of KA Zones:

New York: In New York city actually spans five counties. It is comprised of five boroughs that are applied as KA Zones. The ***AA Level 4*** Feature is New York city (Gov Code = 51000). The five boroughs are:

Borough applied as KA Zone	Gov Code
Bronx	8510
Brooklyn	10022
Manhattan	44919
Queens	60323
Staten Island	70915

Boston: The city of Boston is comprised of twelve settlements that are applied as KA Zones. The ***AA Level 4*** Feature is Boston (Gov Code = 7000). The twelve settlements of Boston, MA, are:

Settlement applied as KA Zone	Gov Code
Allston	1150
Brighton	8330
Charlestown	12645
Dorchester	17090
East Boston	18280
Hyde Park	31960
Jamaica Plain	32520
Mattapan	39380
Roslindale	58265
Roxbury	58475
South Boston	63200

Settlement applied as KA Zone	Gov Code
West Roxbury	77710

Examples of KD Zones:

Southern California: In Southern California, ***Zone Type*** = KD are included for the following named communities which are significant for destination selection. However, these communities are not incorporated cities or ***Zone Type*** = PA.

KD Zone	Gov Code
Bel Air	4828
Brentwood	8150
Hollywood	34162
Saugus	70350
Westwood	84935
Coto De Caza	16580
Dove Canyon	18192
El Toro	22468
Las Flores	32268
Rossmoor	63050

United Kingdom: Zones (***Zone Type*** = KD) are included for named communities in UK. For example, the following are being published for the UK:

KD Zone	Gov Code
Abbey Wood	40059
Acton	40120
Avery Hill	40075
Balham	40086
Barnes	40087
Battersea	40085
Bayswater	40119

C.4 Administrative Level Coding and Boundary Features

C.4.1 Administrative Level Coding on a Link per Country

Administrative Level per Country

Country	
AA Level	**Description**
Albania	
1	Country
2	Qark
3	Rreth
4	Komune
5	Settlement
Andorra	
1	Country
2	Parròquia
3	Settlement
Argentina	
1	Country
2	Provincia
3	Departamento
4	Municipio
5	Settlement
Australia	
1	Country
2	State
3	LGA (Local Government Area)
4	Settlement
Austria	
1	Country
2	Bundesland
3	Bezirk
4	Gemeinde
5	Settlement

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
Bahrain	
1	Country
2	Municipality
3	Area/Section
4	Settlement
Belarus	
1	Country
2	Voblast
3	Rayon
4	Settlement
Belgium	
1	Country
2	Gewest
3	Provincie
4	Gemeente
5	Settlement
Bosnia-Herzegovina	
1	Country
2	Region
3	Kanton
4	Opstine
5	Settlement
Botswana	
1	Country
2	Region
3	District
4	Settlement

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
Brazil	
1	Country
2	Região
3	Estado
4	Munícipio
5	Settlement
Brunei	
1	Country
2	Daerah
3	Mukim
4	Settlement
Bulgaria	
1	Country
2	Oblast
3	Obshhina
4	Settlement
Canada	
1	Country
2	Province
3	County
4	Municipality
5	Settlement
Channel Islands	
1	Country
2	Post county
3	Post town
4	Settlement
China	
1	Country
2	Province/Municiaplity
3	City

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
4	County/District
5	Settlement

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
Croatia	
1	Country
2	Zupanije
3	Grad
4	Settlement
Czech Republic	
1	Country
2	Kraj
3	Okres
4	Obec
5	Settlement
Denmark	
1	Country
2	Region
3	Kommune
4	Settlement
England	
1	Country
2	County
3	Township
4	Settlement
Estonia	
1	Country
2	Maakond
3	Vald
4	Settlement
Finland	
1	Country
2	Lääni
3	Maakunta
4	Kunta

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
5	Settlement
France	
1	Country
2	Région
3	Département
4	Commune
5	Settlement
Germany	
1	Country
2	Bundesland
3	Kreis
4	Gemeinde
5	Settlement
Gibraltar	
1	Country
2	City
3	Settlement
Greece	
1	Country
2	Periferia
3	Nomi
4	Dimotika
5	Settlement
Hongkong-China	
1	Country
2	Province
3	Municipality
4	District
5	Settlement
Hungary	
1	Country

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
2	Megye
3	Település
4	Settlement
India	
1	Country
2	State
3	District
4	Sub-district
5	Settlement
Ireland (Republic of)	
1	Country
2	Post County
3	Post Town
4	Settlement
Isle of Man	
1	Country
2	Post county
3	Post Town
4	Settlement
Italy	
1	Country
2	Regione
3	Provincia
4	Comune
5	Settlement
Kuwait	
1	Country
2	Governate
3	Neighborhood
4	Settlement
Latvia	

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
1	Country
2	Rajons
3	Pilseta
4	Settlement
Lesotho	
1	Country
2	District
3	Council
4	Settlement
Liechtenstein	
1	Country
2	Wahlkries
3	Gemeinde
4	Settlement
Lithuania	
1	Country
2	Apskritis
3	Savivaldybe
4	Settlement
Luxembourg	
1	Country
2	District
3	Canton
4	Commune
5	Settlement
Macau-China	
1	Country
2	Província
3	Distrito
4	Concelhos
5	Settlement

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
Macedonia	
1	Country
2	Opcina
3	Opstina
4	Settlement
Malaysia	
1	Country
2	State
3	District
4	Mukim
5	Settlement
Mexico	
1	Country
2	Estado
3	Municipio
4	Settlement
Moldova	
1	Country
2	Raion
3	Comuna
4	Settlement
Monaco	
1	Country
2	Quartier
3	Settlement
Montenegro	
1	Country
2	Region
3	Okrug
4	Opstine
5	Settlement

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
Namibia	
1	Country
2	Region
3	District
4	Settlement
Netherlands	
1	Country
2	Provincie
3	Gemeente
4	Settlement
Northern Ireland	
1	Country
2	County
3	Township
4	Settlement
Norway	
1	Country
2	Fylke
3	Kommune
4	Settlement
Oman	
1	Country
2	Governate
3	Wilayats
4	Settlement
Poland	
1	Country
2	Wojewodztwo
3	Powiat
4	Gmina
5	Settlement

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
Portugal	
1	Country
2	Distrito
3	Concelho
4	Settlement
Puerto Rico	
1	Country
2	Commonwealth
3	Municipio
4	Barrio
Qatar	
1	Country
2	Municipality
3	City
4	Settlement
Romania	
1	Country
2	Judet
3	Comuna
4	Settlement
Russia	
1	Country
2	Okrug
3	Sub'ekt
4	Rayon
5	Settlement
San Marino	
1	Country
2	Comune
3	Settlement
Saudi Arabia	

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
1	Country
2	Princedom
3	City
4	Settlement
Scotland	
1	Country
2	County
3	Township
4	Settlement
Serbia	
1	Country
2	Region
3	Okrug
4	Opstine
5	Settlement
Singapore	
1	Country
2	County
3	City
4	Settlement
Slovak Republic	
1	Country
2	Kraj
3	Okres
4	Obec
5	Settlement
Slovenia	
1	Country
2	Upravna Enota
3	Obcina
4	Settlement

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
South Africa	
1	Country
2	Province
3	City
4	Settlement
South Korea	
1	Country
2	Province
3	County
4	Settlement
Spain	
1	Country
2	Autonomía
3	Provincia
4	Municipio
5	Settlement
Sweden	
1	Country
2	Län
3	Kommun
4	Settlement
Swaziland	
1	Country
2	Region
3	Constituency
4	Settlement
Switzerland	
1	Country
2	Kanton
3	Bezirk
4	Gemeinde

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
5	Settlement
Taiwan	
1	Country
2	County
3	City
4	Settlement
Thailand	
1	Country
2	Changwat
3	Amphur
4	Settlement
Turkey	
1	Country
2	Sehir
3	Kasaba
4	Settlement
Ukraine	
1	Country
2	Oblast
3	Rayon
4	Settlement
United Arab Emirates	
1	Country
2	Emirate
3	City
4	Settlement
United States	
1	Country
2	State
3	County
4	City

Administrative Level per Country (Continued)

Country	
AA Level	**Description**
United States Virgin Islands	
1	Country
2	Commonwealth
3	County
4	City
Vatican City State	
1	Country
2	Municipal
3	Settlement
Wales	
1	Country
2	County
3	Township
4	Settlement

C.4.2 Boundary Features published per Country

Boundary Features per Country

Country		
Feature Type	**Description**	**Admin Layer**
Albania		
907196	Country	1
909996	Qark	2
900170	Rreth	3
100101	Komune	4
900156	Built-up Area	5
Andorra		
907196	Country	1
900101	Parròquia	4
900156	Built-up Area	5
Argentina		
907196	Country	1
909996	Provincia	2
900170	Departamento	3
100101	Municipio	4
900156	Built-up Area	5
Australia		
907196	Country	1
900170	State	2
900101	LGA (Local Government Area)	3
900156	Built-up Area	4
Austria		
907196	Country	1
909996	Bundesland	2
900170	Bezirk	3
100101	Gemeinde	4
900156	Built-up Area	5
Bahrain		

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
907196	Country	1
900170	Municipality	2
900101	Area/section	3
900156	Built-up Area	4
Belarus		
907196	Country	1
900170	Voblast	3
900101	Rayon	4
900156	Built-up Area	5
Belgium		
907196	Country	1
909996	Gewest	2
900170	Provincie	3
900101	Gemeente	4
900156	Built-up Area	5
Bosnia-Herzegovina		
907196	Country	1
900170	Kanton	3
900101	Opstina	4
900156	Built-up Area	5
Botswana		
907196	Country	1
900170	Region	3
900101	District	4
900156	Built-up Area	5
Brazil		
907196	Country	1
909996	Região	2
900170	Estado	3
900101	Munícipio	4

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900156	Built-up Area	5
Brunei		
907196	Country	1
900170	Daerah	3
900101	Mukim	4
900156	Built-up Area	5
Bulgaria		
907196	Country	1
900170	Oblast	3
900101	Obshhina	4
900156	Built-up Area	5
Canada		
907196	Country	1
909996	Province	2
900170	County	3
900101	Municipality	4
900156	Built-up Area	5
Channel Islands		
907196	Country	1
900170	Post County	3
900101	Post Town	4
900156	Built-up Area	5
China		
907196	Country	1
909996	Province/Municipality	2
900170	City	3
900101	County	4
900156	Built-up Area	5
Croatia		
907196	Country	1

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900170	Zupanije	3
900101	Grad	4
900156	Built-up Area	5
Czech Republic		
907196	Country	1
909996	Kraj	2
900170	Okres	3
900101	Obec	4
900156	Built-up Area	5
Denmark		
907196	Country	1
900170	Region	3
900101	Kommune	4
900156	Built-up Area	5
England		
907196	Country	1
900170	County	3
900101	Township	4
900156	Built-up Area	5
Estonia		
907196	Country	1
900170	Maakond	3
900101	Vald	4
900156	Built-up Area	5
Finland		
907196	Country	1
909996	Lääni	2
900170	Maakunta	3
900101	Kunta	4
900156	Built-up Area	5

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
France		
907196	Country	1
909996	Région	2
900190	Département	3
900101	Commune	4
900156	Built-up Area	5
Germany		
907196	Country	1
9009996	Bundesland	2
900170	Kreis	3
900101	Gemeinde	4
900156	Built-up Area	5
Gibraltar		
907196	Country	1
900101	City	4
900156	Built-up Area	5
Greece		
907196	Country	1
909996	Periferia	2
900170	Nomi	3
900101	Dimotika	4
900156	Built-up Area	5
HongKong-China		
907196	Country	1
909996	Province	2
900170	Municipality	3
900101	District	4
900156	Built-up Area	5
Hungary		
907196	Country	1

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900170	Megye	3
900101	Település	4
900156	Built-up Area	5
India		
907196	Country	1
909996	State	2
900170	District	3
900101	Sub-district	4
900156	Built-up Area	5
Ireland (Republic of)		
907196	Country	1
900170	Post County	3
900156	Built-up Area	5
Isle of Man		
907196	Country	1
900170	Post County	3
900101	Post Town	4
900156	Built-up Area	5
Italy		
907196	Country	1
909996	Regione	2
900170	Provincia	3
900101	Comune	4
900156	Built-up Area	5
Kuwait		
907196	Country	1
900170	Governate	3
900101	Neighborhood	4
900156	Built-up Area	5
Latvia		

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
907196	Country	1
900170	Rajons	3
900101	Pilseta	4
900156	Built-up Area	5
Lesotho		
907196	Country	1
900170	District	3
900101	Council	4
900156	Built-up Area	5
Liechtenstein		
907196	Country	1
900170	Wahlkries	3
900101	Gemeinde	4
900156	Built-up Area	5
Lithuania		
907196	Country	1
900170	Apskritis	3
900101	Savivaldybe	4
900156	Built-up Area	5
Luxembourg		
907196	Country	1
909996	District	2
900170	Canton	3
900101	Commune	4
900156	Built-up Area	5
Macau-China		
907196	Country	1
909996	Província	2
900170	Distrito	3
900101	Concelhos	4

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900156	Built-up Area	5
Macedonia		
907196	Country	1
900190	Opcina	3
900101	Opstina	4
900156	Built-up Area	5
Malaysia		
907196	Country	1
909996	State	2
900170	District	3
900101	Mukim	4
900156	Built-up Area	5
Mexico		
907196	Country	1
900170	Estado	3
900101	Municipio	4
900156	Built-up Area	5
Moldova		
907196	Country	1
900170	Raion	3
900101	Comuna	4
900156	Built-up Area	5
Monaco		
907196	Country	1
900101	Quartier	4
900156	Built-up Area	5
Namibia		
907196	Country	1
900170	Region	3
900101	District	4

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900156	Built-up Area	5
Netherlands		
907196	Country	1
900190	Provincie	3
900101	Gemeente	4
900156	Built-up Area	5
Northern Ireland		
907196	Country	1
900190	County	3
900156	Built-up Area	5
Norway		
907196	Country	1
900170	Fylke	3
900101	Kommune	4
900156	Built-up Area	5
Oman		
907196	Country	1
900170	Governate	3
900101	Kommune	4
900156	Built-up Area	5
Poland		
907196	Country	1
909996	Wojewodztwo	2
900170	Powiat	3
900101	Gmina	4
900156	Built-up Area	5
Portugal		
907196	Country	1
900170	Distrito	3
900101	Concelho	4

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900156	Built-up Area	5
Puerto Rico		
907196	Country	1
909996	Commonwealth	2
900170	Municipio	3
900101	Barrio	4
Qatar		
907196	Country	1
900170	Municipality	3
900101	City	4
900156	Built-up Area	5
Romania		
907196	Country	1
900170	Judet	3
900101	Comuna	4
900156	Built-up Area	5
Russia		
907196	Country	1
909996	Okrug	2
900170	Sub'ekt	3
900101	Rayon	4
900156	Built-up Area	5
San Marino		
907196	Country	1
900101	Comune	4
900156	Built-up Area	5
Saudi Arabia		
907196	Country	1
900170	Princedom	3
900101	City	4

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900156	Built-up Area	5
Scotland		
907196	Country	1
900170	County	3
900156	Built-up Area	5
Serbia-Montenegro		
907196	Country	1
909996	Region	2
900170	Okrug	3
900101	Opstine	4
900156	Built-up Area	5
Slovak Republic		
907196	Country	1
909996	Kraj	2
900170	Okres	3
900101	Obec	4
900156	Built-up Area	5
Slovenia		
907196	Country	1
900170	Upravna Enota	3
900101	Obcina	4
900156	Built-up Area	5
South Africa		
907196	Country	1
909996	Province	2
900101	City	4
900156	Built-up Area	5
South Korea		
907196	Country	1
900170	Province	3

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900101	County	4
900156	Built-up Area	5
Spain		
907196	Country	1
909996	Autonomía	2
900170	Provincia	3
900101	Municipio	4
900156	Built-up Area	5
Swaziland		
907196	Country	1
900170	Region	3
900101	Constituency	4
900156	Built-up Area	5
Sweden		
907196	Country	1
900170	Län	3
900101	Kommun	4
900156	Built-up Area	5
Switzerland		
907196	Country	1
909996	Kanton	2
900170	Bezirk	3
900101	Gemeinde	4
900156	Built-up Area	5
Taiwan		
907196	Country	1
900170	County	3
900101	City	4
900156	Built-up Area	5
Thailand		

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
907196	Country	1
900170	Changwat	3
900101	Amphur	4
900156	Built-up Area	5
Turkey		
907196	Country	1
900170	Sehir	3
900101	Kasaba	4
900156	Built-up Area	5
Ukraine		
907196	Country	1
900170	Oblast	3
900101	Rayon	4
900156	Built-up Area	5
United States		
907196	Country	1
909996	State	2
900170	County	3
900101	City	4
United States Virgin Islands		
907196	Country	1
909996	Commonwealth	2
900170	County	3
900101	City	4
Vatican City State		
907196	Country	1
900101	Municipal	4
900156	Built-up Area	5
Wales		
907196	Country	1

Boundary Features per Country (Continued)

Country		
Feature Type	**Description**	**Admin Layer**
900170	County	3
900156	Built-up Area	5

Appendix D
Reference Data

(This page intentionally left blank)

D.1 Introduction

Simple Reference Classes

The first section of this appendix describes the Simple Reference Classes. Simple implies that a single coded value is used to look up a description. The Simple Reference Classes are presented in alphabetical order.

Compound Reference Classes

The second section of this appendix describes the Compound Reference Classes. Compound implies that both a type value and a modifier value are used to look up a modifier description. The Compound Reference Classes are presented in alphabetical order.

(This page intentionally left blank)

D.2 Simple Reference Classes

D.2.1 AANAMTYP - Administrative Area Name Type

Code	Description
A	ABBREVIATION
B	BASE NAME
E	EXONYM
S	SYNONYM

D.2.2 ADDRFMT - Address Format

Code	Description	Format
(space)	UNADDRESSED	
A	ALPHANUMERIC-N	12N123
B	BLOCK	A123
C	ALPHANUMERIC-1	2M89
D	SLASH[1]	34/134
E	ALPHANUMERIC-E	12E123
F	ALPHANUMERIC-4	A12345A
H	HYPHENATED	123-123
I	ALPHANUMERIC-NW	N123W12312
J	ALPHANUMERIC-NE	N123E12312
K	ALPHANUMERIC-SW	S123W12312
L	ALPHANUMERIC-SE	S123E12312
N	NUMERIC	123456
O	ALPHANUMERIC-ES	E123S12312
P	ALPHANUMERIC-EN	E123N12312
Q	ALPHANUMERIC-WS	W123S12312
R	ALPHANUMERIC-WN	W123N12312
S	ALPHANUMERIC-S	12S123
V	NUMERIC-W	123W

Code	Description	Format
W	ALPHANUMERIC-W	12W123
Y	NUMERIC-E	123E
Z	LEADING ZERO	012345
1	ALPHAHYPHENATED-5	AB-12
3	ALPHANUMERIC 3	AH34

1. This format is commonly used in Thailand.

D.2.3 ADDRSCH-Address Scheme

Code	Description
(Space)	UNDEFINED
E	EVEN
M	MIXED
O	ODD

D.2.4 ADDRTYPE-Address Type

Code	Description
B	BASE
C	CITY
D	COUNTY
O	OLD
T	COMMERCIAL

D.2.5 ATTRTYPE- POI Attribute Type

Code	Description
1	FOOD TYPE
3	VANITY CITY
4	POPULATION
5	CAPITAL CITY
11	DIESEL
15	24 HOUR INDICATOR
16	BUILDING TYPE
18	REST AREA TYPE
22	AIRPORT TYPE
25[1]	TRANSIT ACCESS LEVEL
26[1]	TRANSIT ACCESS TYPE
27[1]	TRANSIT ACCESS METHOD
10001	DISPLAY LOCATION X
10002	DISPLAY LOCATION Y

1. These attributes are used in conjunction with Discover Cities.

D.2.6 BEARING- Direction of Travel

Code	Description
(space)	NOT APPLICABLE
B	BOTH DIRECTIONS
F	FROM REFERENCE NODE
T	TO REFERENCE NODE

D.2.7 CHAINID-Chain Identifier

POI Chain ID.

D.2.8 CONDTYPE-Condition Type

Code	Description
1	TOLL BOOTH
3	CONSTRUCTION STATUS CLOSED
4	GATES
5	DIRECTION OF TRAVEL
7	RESTRICTED DRIVING MANEUVER
8	ACCESS RESTRICTION
9	SPECIAL EXPLICATION
10	SPECIAL SPEED SITUATION
11	VARIABLE SPEED SIGN
12	USAGE FEE REQUIRED
13	LANE TRAVERSAL
14	THROUGH ROUTE
16	TRAFFIC SIGNAL
17	TRAFFIC SIGN
18	RAILWAY CROSSING
19	PASSING RESTRICTION
20	JUNCTION VIEW
21	PROTECTED OVERTAKING
22	EVACUATION ROUTE

D.2.9 CRFCOMP- Composite Road Feature Component Type

Code	Description
L	LINK
N	NODE

D.2.10 CRFTYPE- Composite Road Feature Type

Code	Description
I	INTERSECTION
O	OBJECT
R	ROAD

D.2.11 CURRTYPE-Currency Type

Code	Description
AED	UNITED ARAB EMIRATES DIRHAM
AFA	AFGHANISTAN AFGHANI
ALL	ALBANIAN LEK
ANG	NETHERLANDS ANTILLIAN GUILDER
AOK	ANGOLAN KWANZA
ARS	ARGENTINE PESO
AUD	AUSTRALIAN DOLLAR
AWG	ARUBAN FLORIN
BAM	BOSNIA and HERZEGOVINA MARKA
BBD	BARBADOS DOLLAR
BDT	BANGLADESHI TAKA
BGL	BULGARIAN LEV
BHD	BAHRAINI DINAR
BIF	BURUNDI FRANC
BMD	BERMUDIAN DOLLAR
BND	BRUNEI DOLLAR
BOB	BOLIVIAN BOLIVIANO
BRC	BRAZILIAN CRUZEIRO
BRL	BRAZILIAN REAL
BSD	BAHAMIAN DOLLAR
BTN	BHUTAN NGULTRUM
BUK	BURMA KYAT
BWP	BOTSWANIAN PULA

Code	Description
BYR	BELARUSIAN ROUBLE
BZD	BELIZE DOLLAR
CAD	CANADIAN DOLLAR
CHF	SWISS FRANC
CLF	CHILEAN UNIDADES DE FOMENTO
CLP	CHILEAN PESO
CNY	YUAN (CHINESE) RENMINBI
COP	COLOMBIAN PESO
CRC	COSTA RICAN COLON
CSD	SERBIAN DINAR
CUP	CUBAN PESO
CVE	CAPE VERDE ESCUDO
CYP	CYPRUS POUND
CZK	CZECH KORUNA
DJF	DJIBOUTI FRANC
DKK	DANISH KRONE
DOP	DOMINICAN PESO
DZD	ALGERIAN DINAR
ECS	ECUADOR SUCRE
EGP	EGYPTIAN POUND
EST	ESTONIAN EESTI KROON
ETB	ETHIOPIAN BIRR
EUR	EURO
FJD	FIJI DOLLAR
FKP	FALKLAND ISLANDS POUND
GBP	BRITISH POUND
GHC	GHANAIAN CEDI
GIP	GIBRALTAR POUND
GMD	GAMBAIN DALASI
GNF	GUINEA FRANC
GTQ	GUATEMALAN QUETZAL
GWP	GUINEA-BISSAU PESO

Code	Description
GYD	GUYANAN DOLLAR
HKD	HONG KONG DOLLAR
HNL	HONDURAN DOLLAR
HRK	CROATIAN KUNA
HTG	HAITIAN GOURDE
HUF	HUNGARIAN FORINT
IDR	INDONESIAN RUPIAH
ILS	ISRAELI SHEKEL
INR	INDIAN RUPEE
IQD	IRAQI DINAR
IRR	IRANIAN RIAL
ISK	ICELAND KRONA
JMD	JAMAICAN DOLLAR
JOD	JORDANIAN DINAR
JPY	JAPANESE YEN
KES	KENYAN SCHILLING
KHR	CAMBODAIN RIEL
KMF	COMOROS FRANC
KPW	NORTH KOREAN WON
KRW	(SOUTH) KOREAN WON
KWD	KUWAITI DINAR
KYD	CAYMAN ISLANDS DOLLAR
LAK	LAO KIP
LBP	LEBANESE POUND
LKR	SRI LANKA RUPPE
LRD	LIBERIAN DOLLAR
LSL	LESOTHO LOTI
LTL	LITHUANIAN LITAI
LVL	LATVIAN LATS
LYD	LIBYAN DINAR
MAD	MOROCCAN DIRHAM
MDL	MOLDOVAN LEU

Code	Description
MGF	MALAGASY FRANC
MKD	MACEDONIAN DENAR
MNT	MONGOLIAN TUGIRK
MOP	MACAU PATACA
MRO	MAURITANIAN OUGUIYA
MTL	MALTESE LIRA
MUR	MAURITIUS RUPEE
MVR	MALDIVE RUFIYAA
MWK	MALAWI KWACHA
MXP	MEXICAN PESO
MYR	MALAYSIAN RINGGIT
MZM	MOZAMBIQUE METICAL
NGN	NIGERIAN NAIRA
NIC	NICARAGUAN CORDOBA
NOK	NORWEGIAN KRONER
NPR	NEPALESE RUPEE
NZD	NEW ZEALAND DOLLAR
OMR	OMANI RIAL
PAB	PANAMANIAN BALBOA
PEI	PERUVIAN INTI
PGK	PAPUA NEW GUINEA KINA
PHP	PHILIPPINE PESO
PKR	PAKISTAN RUPEE
PLN	POLISH ZLOTYCH
PYG	PARAGUAY GUARANI
QAR	QATARI RIAL
ROL	ROMANIAN LEU
RUB	RUSSIAN RUBLES
RWF	RWANDA FRANC
SAR	SAUDI ARABIAN RIYAL
SBD	SOLOMON ISLANDS DOLLAR
SCR	SEYCHELLES RUPEE

Code	Description
SDP	SUDANESE POUND
SEK	SWEDISH KRONA
SKK	SLOVAKIA KORUNA
SGD	SINGAPORE DOLLAR
SHP	ST. HELENA POUND
SLL	SIERRA LEONE LEONE
SOS	SOMALI SCHILLING
SRG	SURINAME GUILDER
STD	SAO TOME AND PRINCIPE DOBRA
SUR	USSR ROUBLE
SVC	EL SALVADOR COLON
SYP	SYRIAN POTMD
SZL	SWAZILAND LILANGENI
THB	THAI BHAT
TND	TUNISIAN DINAR
TOP	TONGAN PA'ANGA
TPE	EAST TIMOR ESCUDO
TRY	TURKISH LIRA
TTD	TRINIDAD & TOBAGO DOLLAR
TWD	TAIWAB DOLLAR
TZS	TANZANAIN SCHILLING
UAH	UKRAINE HRYVNIA
UGS	UGANDA SHILLING
USD	US DOLLAR
UYP	URUGUAYAN PESO
VEB	VENEZUELAN BOLIVAR
VND	VIETNAMESE DONG
VUV	VANUATU VATU
WST	SAMOAN TALA
YDD	DEMOCRATIC YEMENI DINAR
YER	YEMENI RIAL
YUD	NEW YUGOSLAVIA DINAR

Code	Description
ZAR	SOUTH AFRICAN RAND
ZMK	ZAMBIAN KWACHA
ZRZ	ZAIRE ZAIRE
ZWD	ZIMBABWE DOLLAR

D.2.12 DATETYPE- Date Type

Code	Description
A	DATE RANGES
C	DAY OF MONTH
D	DAY OF WEEK OF MONTH
E	DAY OF WEEK OF YEAR
F	WEEK OF MONTH
H	MONTH OF YEAR
I	DAY OF MONTH OF YEAR
1	DAYMASK
2	EXTERNAL

D.2.13 DATUM- SIF datum

Code	Description
WGS84	WORLD GEODETIC SYSTEM OF 1984

D.2.14 DIRSIGN-Direction on Sign

Code	Description	Language code
(space)	NOT APPLICABLE	NOT APPLICABLE
E	EAST	ENG
E	EST	FRE
N	NORTH	ENG

Code	Description	Language code
N	NORD	FRE
O	OUEST	FRE
S	SOUTH	ENG
S	SUD	FRE
W	WEST	ENG

D.2.15 DIVLOC- Divider Location

Code	Description
(space)	NOT APPLICABLE
A	BOTH NODES AND LINK
L	LINK ONLY
N	NO DIVIDER
1	REF NODE AND LINK
2	NREF NODE AND LINK

D.2.16 DRIVSIDE- Driving Side

Code	Description
L	LEFT SIDE DRIVING
R	RIGHT SIDE DRIVING

D.2.17 FACILITY - Facility Type

Facility Types

Facility Code	Description	Language code
2084	**WINERY**	**ENG**
	VINARDA	CZE
	VINGARD	DAN
	WIJN PROEVERIJ	DUT
	VIINITILA	FIN
	ÉTABLISSEMENT VINICOLE	FRE
	WEINGUT	GER
	CANTINA	ITA
	VINGÅRD	NOR
	ADEGA	POR
	VINAREN	SLO
	BODEGA	SPA
	VINGARD	SWE
3578	**ATM**	**ENG**
	BANKOMAT	CZE
	PENGEAUTOMAT	DAN
	GELDAUTOMAT	DUT
	PANKKIAUTOMAATTI	FIN
	DISTRIBUTEUR AUTOMATIQUE	FRE
	GELDAUTOMAT	GER
	SPORTELLO BANCOMAT	ITA
	MINIBANK	NOR
	BANCO 24 HORAS/MULTIBANCO	POR
	BANKOMAT	SLO
	CAJERO AUTOMÁTICO	SPA
	BANKOMAT	SWE

Facility Types (Continued)

Facility Code	Description	Language code
4013	**TRAIN STATION**	**ENG**
	NADRAZI	CZE
	TOGSTATION	DAN
	TREINSTATION	DUT
	RAUTATIEASEMA	FIN
	GARE	FRE
	BAHNOF	GER
	STAZIONE FERROVIARIA	ITA
	TOGSTASJON	NOR
	ESTAÇÃO DE COMBOIOS	POR
	NADRAZIE	SLO
	ESTACIÓN DE FERROCARRIL	SPA
	JÄRNVÄGSSTATION	SWE
4100	**COMMUTER RAIL STATION**	**ENG**
	NADRAZI PRIMESTSKE DOPRAVY	CZE
	NÆRTOGSTATION	DAN
	FORENZENSTATION	DUT
	LÄHILIIKENNEASMA	FIN
	GARE DE TRAIN DE BANLIEU	FRE
	NAHVERKEHRSBAHNHOF	GER
	STAZIONE FERROVIARIA LOCALE	ITA
	LOKALTOGSTASJON	NOR
	ESTAÇÃO FERROVIÁRIA DE COMUTAÇÃO	POR
	NADRAZIE PRIMESTSKEJ DOPRAVY	SLO
	ESTACIÓN	SPA
	PENDELTÅGSTATION	SWE

Facility Types (Continued)

Facility Code	Description	Language code
4170	**BUS STATION**	**ENG**
	AUTOBUSOVE NADRAZI	CZE
	BUSTERMINAL	DAN
	BUSSTATION	DUT
	LINJA-AUTOASEMA	FIN
	GARE ROUTIÈRE	FRE
	BUSBAHNHOF	GER
	TERMINAL CORRIERE	ITA
	BUSSTERMINAL	NOR
	ESTAÇÃO DE AUTOCARROS/RODOVIÁRIA	POR
	AUTOBUSOVE NADRAZIE	SLO
	ESTACIÓN DE AUTOBUSES	SPA
	BUSSTERMINAL	SWE
4444	**NAMED PLACE**	**ENG**
	VYZNAMNE MISTO	CZE
	BYCENTER	DAN
	STADSCENTRUM	DUT
	KESKUSTA	FIN
	CENTRE VILLE	FRE
	STADTZENTRUM	GER
	CENTRO CITTÀ	ITA
	SENTRUM	NOR
	LUGAR COM NOME	POR
	VYZNAMNE MIESTO	SLO
	CENTRO DE LA CIUDAD	SPA
	CENTRUM	SWE

Facility Types (Continued)

Facility Code	Description	Language code
4482	**FERRY TERMINAL**	**ENG**
	TERMINALTRAJEKTU	CZE
	FÆRGETERMINAL	DAN
	VEERBOOT TERMINAL	DUT
	LAUTTATERMINAALI	FIN
	GARE MARITIME	FRE
	FÄHRANLEGESTELLE	GER
	IMBARCO TRAGHETTI	ITA
	FERGETERMINAL	NOR
	ESTAÇÃO DE BARCOS FERRI	POR
	TERMINAL TRAJEKTU	SLO
	TERMINAL DE FERRY	SPA
	FÄRJETERMINAL	SWE
4493	**MARINA**	**ENG**
	PRISTAVISTE JACHET	CZE
	MARINA	DAN
	JACHTHAVEN	DUT
	SATAMA	FIN
	PORT DE PLAISANCE	FRE
	ANLEGESTELLE	GER
	PORTO TURISTICO	ITA
	MARINA	NOR
	MARINA	POR
	PRISTAV JACHT	SLO
	PUERTO DEPORTIVO	SPA
	BÅTHAMN	SWE

Facility Types (Continued)

Facility Code	Description	Language code
4580	**PUBLIC SPORT AIRPORT**	**ENG**
	SPORTOVNI LETISTE	CZE
	SPORTFLYVEPLADS	DAN
	SPORTVLIEGVELD	DUT
	YLEISILMAILUKENTTÄ	FIN
	AEROCLUB	FRE
	SPORTFLUGPLATZ	GER
	AEROCLUB	ITA
	SPORSFLYPLASS	NOR
	AERÓDROMO/AEROPORTO DESPORTIVO	POR
	SPORTOVE LETISKO	SLO
	AEROPUERTO DEPORTIVO	SPA
	SPORTFLYGFÄLT	SWE
4581	**AIRPORT**	**ENG**
	LETISTE	CZE
	LUFTHAVN	DAN
	VLIEGVELD	DUT
	LENTOASEMA	FIN
	AÉROPORT	FRE
	FLUGHAFEN	GER
	AEROPORTO	ITA
	LUFTHAVN	NOR
	AEROPORTO	POR
	LETISKO	SLO
	AEROPUERTO	SPA
	FLYGPLATS	SWE

Facility Types (Continued)

Facility Code	Description	Language code
5000	**BUSINESS FACILITY**	**ENG**
	OBCHODNI ZARIZENI	CZE
	FORRETNINGSFACILITETER	DAN
	BEDRIJF	DUT
	YRITYS	FIN
	SITE INDUSTRIEL	FRE
	GEWERBEBETRIEB	GER
	GRANDE AZIENDA	ITA
	BEDRIFT	NOR
	CENTRO EMPRESARIAL	POR
	OBCHODNE ZARIADENIE	SLO
	EMPRESA	SPA
	FÖRETAG	SWE
5400	**GROCERY STORE**	**ENG**
	POTRAVINY	**CZE**
	KØBMANDSFORRETNING	DAN
	SUPERMARKT	DUT
	RUOKAKAUPPA	FIN
	SUPERMARCHÉ	FRE
	SUPERMARKT	GER
	SUPERMERCATO ALIMENTARE	ITA
	DAGLIGVAREHANDEL	NOR
	SUPERMERCADO	POR
	POTRAVINY	SLO
	COLMADO	SPA
	MATAFFÄR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
5511	**AUTOMOBILE DEALERSHIP**	**ENG**
	AUTOMOBILOVY	**CZE**
	BILFORHANDLING	DAN
	AUTO DEALER	DUT
	AUTOKAUPPA	FIN
	CONCESSIONNAIRE	FRE
	AUTOHÄNDLER	GER
	CONCESSIONARIO AUTO	ITA
	BILFORHANDLER	NOR
	CONCESSIONÁRIO	POR
	AUTOMOBILOVY PREDAJCA	SLO
	CONCESIONARIO DE AUTOMÓVILES	SPA
	BILFÖRSÄLJNING	SWE
5512	**AUTO DEALERSHIP-USED CARS**	**ENG**
	AUTOBAZAR	CZE
	BILFORHANDLER BRUGTE BILER	DAN
	OCCASION-DEALER	DUT
	KÄYTETTYJEN AUTOJEN MYYNTILIIKKEET	FIN
	CONCESSIONNAIRE DE VÉHICULES DÓCCASION	FRE
	GEBRAUCHTWAGENHÄNDLER	GER
	RIVENDITORE DI AUTO USATE	ITA
	BILFORHANDLERE BRUGTE BILER	NOR
	STAND DE USADOS	POR
	AUTOBAZAR	SLO
	CONCESIONARIO DE SEGUNDA MANO	SPA
	BILHANDLARE BEGAGNADE BILAR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
5540	**PETROL/GASOLINE STATION**	**ENG**
	CERPACI STANICE	CZE
	TANKSTATION	DAN
	BENZINESTATION	DUT
	HUOLTOASEMA	FIN
	STATION-SERVICE	FRE
	TANKSTELLE	GER
	DISTRIBUTORE DI CARBURANTE	ITA
	BENSINSTASJON	NOR
	ESTAÇÃO DE ABASTECIMIENTO	POR
	CERPACIA STANICA	SLO
	GASOLINERA	SPA
	BENSINSTATION	SWE
5571	**MOTORCYCLE DEALERSHIP**	**ENG**
	PRODEJCE MOTOCYKLU	CZE
	MOTORCYKELFORHANDLERE	DAN
	MOTORHANDEL	DUT
	MOOTTORIPYÖRÄLIIKE	FIN
	CONCESSIONNAIRE MOTO	FRE
	MOTORRADHÄNDLER	GER
	CONCESSIONARIO MOTOCICLI	ITA
	MOTORSYKKELFORRETNING	NOR
	CONCESSIONÁRIO DE MOTOCICLOS	POR
	PREDAJCA MOTOCYKLU	SLO
	CONCESIONARIO DE MOTOS	SPA
	MOTORCYKELHANDLARE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
5800	**RESTAURANT**	**ENG**
	RESTAURACE	CZE
	RESTAURANT	DAN
	RESTAURANT	DUT
	RAVINTOLA	FIN
	RESTAURANT	FRE
	RESTAURANT	GER
	RISTORANTE	ITA
	RESTAURANT	NOR
	RESTAURANTE	POR
	RESTAURACIA	SLO
	RESTAURANTE	SPA
	RESTAURANG	SWE
5813	**NIGHTLIFE**	**ENG**
	NOCNI PODNIK	CZE
	NATTELIV	DAN
	UITGAANSLEVEN	DUT
	YÖELÄMÄ	FIN
	VIE NOCTURNE	FRE
	NACHTLEBEN	GER
	LOCALI NOTTURNI	ITA
	UTESTED	NOR
	DISCOTECA	POR
	NOCNY PODNIK	SLO
	VIDA NOCTURNA	SPA
	NATTLIV	SWE

Facility Types (Continued)

Facility Code	Description	Language code
5999	**HISTORICAL MONUMENT**	**ENG**
	HISTORICKA PAMATKA	CZE
	HISTORISK MONUMENT	DAN
	HISTORISCH MONUMENT	DUT
	HISTORIALLINEN MONUMENTTI	FIN
	MONUMENT HISTORIQUE	FRE
	HISTORISCHES BAUWERK	GER
	MONUMENTO STORICO	ITA
	HISTORISKT MONUMENT	NOR
	MONUMENTO HISTÓRICO	POR
	HISTORICKA PAMETIHODNOST	SLO
	MONUMENTO HISTÓRICO	SPA
	HISTORISKT MONUMENT	SWE
6000	**BANK**	**ENG**
	BANKA	CZE
	BANK	DAN
	BANK	DUT
	PANKKI	FIN
	BANQUE	FRE
	BANK	GER
	BANCA	ITA
	BANK	NOR
	BANCO	POR
	BANKA	SLO
	BANCO	SPA
	BANK	SWE

Facility Types (Continued)

Facility Code	Description	Language code
6512	**SHOPPING**	**ENG**
	NAKUPNI ZONA	CZE
	SHOPPING	DAN
	WINKELCENTRUM	DUT
	KAUPPAKESKUS	FIN
	CENTRE COMMERCIAL	FRE
	EINKAUFSZENTRUM	GER
	CENTRO COMMERCIALE	ITA
	SHOPPING	NOR
	CENTRO COMERCIAL	POR
	NAKUPNA ZONA	SLO
	CENTRO COMERCIAL	SPA
	SHOPPING	SWE
7011	**HOTEL**	**ENG**
	HOTEL	CZE
	HOTEL	DAN
	HOTEL	DUT
	HOTELLI	FIN
	HÔTEL	FRE
	HOTEL	GER
	ALBERGO	ITA
	HOTELL	NOR
	HOTEL	POR
	HOTEL	SLO
	HOTEL	SPA
	HOTELL	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7012	**SKI RESORT**	**ENG**
	LYZARSKE	CZE
	SKISPORTSSTED	DAN
	SKI GEBIED	DUT
	HIIHTOKESKUS	FIN
	STATION DE SPORTS D'HIVER	FRE
	SKIGEBIET	GER
	IMPIANTO SCIISTICO	ITA
	SKISENTER	NOR
	ESTÂNCIA DE ESQUI	POR
	LYZIARSKE STREDISKO	SLO
	ESTACIÓN DE ESQUÍ	SPA
	SKIDORT	SWE
7013	**GUEST HOUSE**	**ENG**
	PENZION	CZE
	PENSIONAT	DAN
	PENSION	DUT
	TÄYSIHOITOLA	FIN
	MAISON D'HÔTES	FRE
	PENSION	GER
	PENSIONE	ITA
	PENSIONAT	NOR
	CASA DE HÓSPEDES	POR
	PENZION	SLO
	PENSIÓN	SPA
	PENSIONAT	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7389	**TOURIST INFORMATION**	**ENG**
	TURISTICKE INFORMACE	CZE
	TURISTINFORMATION	DAN
	TOERISTISCHE INFORMATIE	DUT
	MATKAILUTOIMISTO	FIN
	INFORMATION TOURISTIQUE	FRE
	TOURISTENINFORMATION	GER
	INFORMAZIONE TURISTICA	ITA
	TURISTINFORMASJON	NOR
	INFORMAÇÃO TURÍSTICA	POR
	TURISTICKE INFORMACIE	SLO
	INFORMACIÓN TURÍSTICA	SPA
	TOURISTBYRÅ	SWE
7510	**RENTAL CAR AGENCY**	**ENG**
	PUJCOVNA AUT	CZE
	BILUDLEJNING	DAN
	AUTOVERHUURBEDRIJF	DUT
	AUTONVUOKRAUS	FIN
	AGENCE DE LOCATION DE VOITUES	FRE
	AUTOVERMIETUNG	GER
	AUTONOLEGGIO	ITA
	BILUTLEIE	NOR
	AGÊNCIA DE ALUGUER DE AUTOMOVEIS	POR
	POZICOVNA AUT	SLO
	SERVICIO DE ALQUILER DE COCHES	SPA
	BILUTHYRNINGSFIRMA	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7520	**PARKING LOT**	**ENG**
	PARKOVISTE	CZE
	PARKERINGSANLÆG	DAN
	PARKEERPLAATS	DUT
	PYSÄKÖINTIPAIKKA	FIN
	PARKING DÉCOUVERT	FRE
	PARKPLATZ	GER
	PARCHEGGIO SCOPERTO	ITA
	PARKERINGSPLASS	NOR
	PARQUE DE ESTACIONAMIENTO	POR
	PARKOVISTO	SLO
	APARCAMIENTO DESCUBIERTO	SPA
	PARKERINGSPLATS	SWE
7521	**PARKING GARAGE/HOUSE**	**ENG**
	GARAZE	CZE
	GARAGE/PARKERINGSHUS	DAN
	PARKEERGARAGE	DUT
	PYSÄKÖINTITALO	FIN
	PARKING COUVERT	FRE
	PARKGARAGE	GER
	PARCHEGGIO COPERTO	ITA
	PARKERINGSHUS	NOR
	GARAGEM DE PARQUEAMENTO	POR
	GARAZE	SLO
	PARKING	SPA
	PARKERINGSHUS	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7522	**PARK & RIDE**	**ENG**
	JEZDECKY AREAL	CZE
	PARK & RIDE	DAN
	PARK & RIDE	DUT
	LIITYNTÄPYSÄKÖINTIALUE	FIN
	PARKING D'ÉCHANGE	FRE
	PARK & RIDE	GER
	PARCHEGGIO DI SCAMBIO	ITA
	PARK & RIDE	NOR
	PARQUE DE ESTACIONAMIENTO COBERTO	POR
	JAZDECKY AREAL	SLO
	PARK & RIDE	SPA
	INFARTSPARKERING	SWE
7538	**AUTO SERVICE & MAINTENANCE**	**ENG**
	AUTO SERVIS	CZE
	BILSERVICE & -VEDLIGEHOLDELSE	DAN
	GARAGE	DUT
	AUTONKORJAAMO	FIN
	GARAGE	FRE
	AUTOREPARATUR	GER
	AUTORIPARAZIONE	ITA
	BILVERKSTED	NOR
	SERVIÇO AUTOMÓVEL & MANUTENÇÃO	POR
	AUTO SERVIS	SLO
	TALLER DE REPARACIÓN DE AUTOMÓVILES	SPA
	BILVERKSTAD	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7832	**CINEMA**	**ENG**
	KINO	CZE
	BIOGRAF	DAN
	BIOSCOOP	DUT
	ELOKUVATEATTERI	FIN
	CINEMA	FRE
	KINO	GER
	CINEMA	ITA
	KINO	NOR
	CINEMA	POR
	KINO	SLO
	CINE	SPA
	BIO	SWE
7897	**REST AREA**	**ENG**
	ODPOCIVKA	CZE
	RASTPLADS	DAN
	VERZORGINGSPLAATS	DUT
	LEVÄHDYSALUE	FIN
	AIRE DE REPOS	FRE
	RASTSTATION	GER
	AREA DI SERVIZIO	ITA
	RASTEPLASS	NOR
	ÁREA DE LAZER	POR
	ODPOCIVKA	SLO
	ZONA DE SERVICIOS	SPA
	RASTPLATS	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7929	**PERFORMING ARTS**	**ENG**
	DIVADLA	CZE
	TEATER	DAN
	THEATER	DUT
	TEATTERI	FIN
	THÉÂTRE	FRE
	DARSTELLENDE KUNST	GER
	TEATRO	ITA
	TEATER	NOR
	SALA DE ESPETACULOS	POR
	DIVADLA	SLO
	TEATRO	SPA
	TEATER	SWE
7933	**BOWLING CENTRE**	**ENG**
	BOWLINGOVE CENTRUM	CZE
	BOWLINGHAL	DAN
	BOWLINGCENTRUM	DUT
	KEILAHALLI	FIN
	BOWLING	FRE
	BOWLING/KEGELN	GER
	BOWLING	ITA
	BOWLINGHALL	NOR
	CENTRO DE "BOWLING"	POR
	BOWLINGOVE CENTRUM	SLO
	BOLERA	SPA
	BOWLINGHALL	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7940	**SPORTS COMPLEX**	**ENG**
	SPORTOVNI KOMPLEX	CZE
	SPORTSANLÆG	DAN
	SPORTCOMPLEX	DUT
	URHEILUKESKUS	FIN
	COMPLEXE SPORTIF	FRE
	SPORTANLAGEN	GER
	COMPLESSO SPORTIVO	ITA
	IDRETTSANLEGG	NOR
	COMPLEXO GIMNODESPORTIVO	POR
	SPORTOVY KOMPLEX	SLO
	POLÍGONO DEPORTIVO	SPA
	IDROTTSARENA	SWE
7947	**PARK/RECREATION AREA**	**ENG**
	PARK/REKREACNI OBLAST	CZE
	PARK/REKREATIVT OMRÅDE	DAN
	PARK/RECREATIEGEBIED	DUT
	PUISTO/ULKOILUALUE	FIN
	PARC ET JARDINS	FRE
	ERHOLUNGSGEBIET	GER
	IMPIANTO RICREATIVO	ITA
	PARK/FRILUFTSOMRÅDE	NOR
	AREA RECRIATIVA/PARQUE RECRIATIVO	POR
	PARK/REKREACNA OBLAST	SLO
	ZONA DE RECREO	SPA
	PARK/FRILUFTSOMRÅDE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7985	**CASINO**	**ENG**
	KASINO	CZE
	CASINO	DAN
	CASINO	DUT
	KASINO	FIN
	CASINO	FRE
	SPIELKASINO	GER
	CASINÒ	ITA
	CASINO	NOR
	CASINO	POR
	KASINO	SLO
	CASINO	SPA
	CASINO	SWE
7990	**CONVENTION/EXHIBITION CENTRE**	**ENG**
	VYSTAVISTE	CZE
	KONFERENCECENTER/UDSTILLINGSCENTER	DAN
	CONGRES-/BEURSCENTRUM	DUT
	KONFERENSSIKESKUS	FIN
	PALAIS DES CONGRÈS/PARC DES EXPOSITION	FRE
	AUSSTELLUNGSZENTRUM/MESSEGELÄNDE	GER
	CENTRO CONGRESSI/ESPOSIZIONI	ITA
	MESSEHALL/KONFERANSESENTER	NOR
	CENTRO DE CONVENÇÕES/EXIBIÇÕES	POR
	VYSTAVISKO	SLO
	CENTRO DE CONGRESOS O EXPOSICIONES	SPA
	KONFERENS/UTSTÄLLNINGSCENTER	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7992	**GOLF COURSE**	**ENG**
	GOLFOVE HRISTE	CZE
	GOLFANLÆG	DAN
	GOLFBAAN	DUT
	GOLFKENTTÄ	FIN
	TERRAIN DE GOLF	FRE
	GOLFPLATZ	GER
	CAMPI DA GOLF	ITA
	GOLFBANE	NOR
	CAMPO DE GOLFE	POR
	GOLFOVE	SLO
	PISTA DE GOLF	SPA
	GOLFBANA	SWE
7994	**CIVIC/COMMUNITY CENTRE**	**ENG**
	KULTURNI/STREDISKO	CZE
	BORGER-/KULTURCENTER	DAN
	GEMEENSCHAPSHUIS	DUT
	KULTTUURIKESKUS	FIN
	CENTRE CULTUREL	FRE
	GEMEINDEZENTRUM	GER
	CENTRO CIVICO	ITA
	SAMFUNNSHUS	NOR
	CENTRO COMUNITÁRIO/CÍVICO	POR
	KULTURNE STREDISKO	SLO
	CENTRO CÍVICO	SPA
	SAMLINGSLOKAL	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7996	**AMUSEMENT PARK**	**ENG**
	ZABAVNY PARK	CZE
	FORLYSTELSESPARK	DAN
	PRETPARK	DUT
	HUVIPUISTO	FIN
	PARC D'ATTRACTIONS	FRE
	VERGNÜGUNGSPARK	GER
	PARCO DIVERTIMENTI	ITA
	FORNØYELSESPARK	NOR
	PARQUE DE DIVERSÕES	POR
	ZABAVNY PARK	SLO
	PARQUE DE ATRACCIONES	SPA
	NÖJESFÄLT	SWE
7997	**SPORTS CENTRE**	**ENG**
	SPORTOVNI CENTRUM	CZE
	SPORT CENTRA	DAN
	SPORTCENTRUM	DUT
	URHEILUAREENA	FIN
	CENTRE SPORTIF	FRE
	SPORTZENTRUM	GER
	CENTRO SPORTIVO	ITA
	SPORTSARENA	NOR
	CENTRO DEPORTIVO	POR
	SPORTOVE CENTRUM	SLO
	CENTRO DEPORTIVO	SPA
	SPORTARENA	SWE

Facility Types (Continued)

Facility Code	Description	Language code
7998	**ICE SKATING RINK**	**ENG**
	ZIMNI STADION	CZE
	SKØJTEHAL	DAN
	IJSBAAN	DUT
	JÄÄHALLI	FIN
	PATINOIRE	FRE
	EISLAUFSTADION	GER
	PISTA DI PATTINAGGIO	ITA
	SKØYTEHALL	NOR
	PISTA DE PATINAGEM NO GELO	POR
	ZIMNI STADION	SLO
	PISTA DE PATINAJE	SPA
	ISHALL	SWE
7999	**TOURIST ATTRACTION**	**ENG**
	TURISTICKA ATRAKCE	CZE
	TURISTATTRAKTION	DAN
	TOERISTISCHE ATTRACTIE	DUT
	NÄHTÄVYYS	FIN
	ATTRACTION TOURISTIQUE	FRE
	SEHENSWÜRDIGKEIT	GER
	ATTRAZIONE TURISTICA	ITA
	SEVERDIGHET	NOR
	ATRACÇÃO TURÍSTICA	POR
	TURISTICKA ATRAKCIA	SLO
	ATRACCIÓN TURÍSTICA	SPA
	SEVÄRDHET	SWE

Facility Types (Continued)

Facility Code	Description	Language code
8060	**HOSPITAL**	**ENG**
	NEMOCNICE	CZE
	HOSPITAL	DAN
	ZIEKENHUIS	DUT
	SAIRAALA	FIN
	HÔPITAL	FRE
	KRANKENHAUS/POLIKLINIK	GER
	OSPEDALE	ITA
	SYKEHUS	NOR
	HOSPITAL	POR
	NEMOCNICA	SLO
	HOSPITAL	SPA
	SJUKHUS	SWE
8200	**HIGHER EDUCATION**	**ENG**
	VYSSI SKOLSTVI	CZE
	HØJERE UDDANNELSE	DAN
	UNIVERSITEIT/HOGESCHOOL	DUT
	YLIOPISTO/KORKEAKOULU	FIN
	UNIVERSITÉ/GRANDE ÉCOLE	FRE
	UNIVERSITÄT/HOCHSCHULE	GER
	UNIVERSITÀ	ITA
	UNIVERSITET/HØYSKOLE	NOR
	ENSINO SUPERIOR/UNIVERSIDADE	POR
	VYSSIE SKOLSTVO	SLO
	UNIVERSIDAD/ESCUELA UNIVERSITARIA	SPA
	UNIVERSITET/HÖGSKOLA	SWE

Facility Types (Continued)

Facility Code	Description	Language code
8211	**SCHOOL**	**ENG**
	SKOLA	CZE
	SKOLE	DAN
	SCHOOL	DUT
	KOULU	FIN
	ÉCOLE	FRE
	SCHULE	GER
	SCUOLA	ITA
	SKOLE	NOR
	ESCOLA	POR
	SKOLA	SLO
	ESCUELA	SPA
	SKOLA	SWE
8231	**LIBRARY**	**ENG**
	KNIHOVNA	CZE
	BIBLIOTEK	DAN
	BIBLIOTHEEK	DUT
	KIRJASTO	FIN
	BIBLIOTHÈQUE	FRE
	BIBLIOTHEK	GER
	BIBLIOTECA	ITA
	BIBLIOTEK	NOR
	BIBLIOTECA	POR
	KNIZNICA	SLO
	BIBLIOTECA	SPA
	BIBLIOTEK	SWE

Facility Types (Continued)

Facility Code	Description	Language code
8410	**MUSEUM**	**ENG**
	MUZEUM	CZE
	MUSEUM	DAN
	MUSEUM	DUT
	MUSEO	FIN
	MUSÉE	FRE
	MUSEUM	GER
	MUSEO	ITA
	MUSEUM	NOR
	MUSEU	POR
	MUZEUM	SLO
	MUSEO	SPA
	MUSEUM	SWE
8699	**AUTOMOBILE CLUB**	**ENG**
	AUTOMOBILOVY KLUB	CZE
	AUTOMOBILKLUB	DAN
	AUTOMOBIEL CLUB	DUT
	AUTOILUKERHO	FIN
	CLUB AUTOMOBILE	FRE
	AUTOMOBIL CLUB	GER
	AUTOMOBIL CLUB	ITA
	AUTOMOBILKLUBB	NOR
	CLUBE AUTOMÓVEL	POR
	AUTOMOBILOVY KLUB	SLO
	AUTOMÓVIL CLUB	SPA
	AUTOMOBILKLUBB	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9121	**CITY HALL**	**ENG**
	RADNICE	CZE
	RÅDHUS	DAN
	STADHUIS/GEMEENTEHUIS	DUT
	KAUPUNGINTALO	FIN
	MAIRIE	FRE
	RATHAUS/STADTVERWALTUNG	GER
	MUNICIPIO	ITA
	RÅDHUS	NOR
	CÂMARA MUNICIPAL	**POR**
	RADNICA	SLO
	AYUNTAMIENTO	SPA
	STADSHUS	SWE
9211	**COURT HOUSE**	**ENG**
	SOUD	CZE
	RETSBYGNING	DAN
	GERECHTSGEBOUW	DUT
	TUOMIOISTUIN	FIN
	PALAIS DE JUSTICE	FRE
	GERICHTSGEBÄUDE	GER
	TRIBUNALE	ITA
	DOMSTOL	NOR
	TRIBUNAL	POR
	SUD	SLO
	JUZGADOS	SPA
	DOMSTOL	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9221	**POLICE STATION**	**ENG**
	POLICEJNI STANICE	CZE
	POLITISTATION	DAN
	POLITIEBUREAU	DUT
	POLIISIASEMA	FIN
	COMMISSARIAT	FRE
	POLIZEISTATION	GER
	STAZIONE DI POLIZIA	ITA
	POLITISTASJON	NOR
	ESQUADRA DE POLICIA	POR
	POLICAJNA STANICA	SLO
	COMISARÍA DE POLICÍA	SPA
	POLISSTATION	SWE
9500	**BUSINESS SERVICE**	**ENG**
	OBCHODNI SLUZBY	CZE
	FIRMA SERVICE	DAN
	ZAKELIJKE DIENSTEN	DUT
	AFFAIRES ET SERVICES ANNEXES	FRE
	GESCHÄFTSDIEMSTLEISTUNGEN	GER
	SERVIZI PER AFFARI	ITA
	FIRMASERVICE	NOR
	SERVIÇOS E EMPRESAS	POR
	OBCHODNE SLUZBY	SLO
	SERVICIOS A EMPRESAS	SPA
	FÖRETAGSSERVICE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9501	**OTHER COMMUNICATION**	**ENG**
	OSTATNI KOMUNIKACE	CZE
	ØVRIG KOMMUNIKATION	DAN
	OVERIGE COMMUNICATIE	DUT
	AUTRES COMMUNICATIONS	FRE
	ÜBRIGE KOMMUNIKATION/UNTERHALTUNGSE	GER
	ALTRI SERVIZI DI TELECOMUNICAZIONI	ITA
	ØVRIG KOMMUNIKASJON	NOR
	OUTRAS COMUNICAÇÕES	POR
	OSTATNA KOMUNIKACIA	SLO
	OTRAS COMUNICACIONES	SPA
	ÖVRIG KOMMUNIKATION	SWE
9502	**TELEPHONE SERVICE**	**ENG**
	TELEFONNI SLUZBA	CZE
	TELEFONSERVICE	DAN
	TELEFOON DIENSTEN	DUT
	SERVICE TÉLÉPHONIQUE	FRE
	TELEFONDIENSTLEISTUNG	GER
	SERVIZI TELEFONICI	ITA
	TELEFONSERVICE	NOR
	SERVIÇO TELEFÓNICO	POR
	TELEFONNA SLUZBA	SLO
	LOCUTORIO TELEFÓNICO	SPA
	TELEFONSERVICE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9503	**CLEANING & LAUNDRY**	**ENG**
	CISTIRNA & PRADELNA	CZE
	RENØRING & VASKERI	DAN
	SCHONNMAKEN & STOMERIJ	DUT
	PUHDISTUS & PESULA	FIN
	LAVERIE	FRE
	WÄSCHEREIEN / REINIGUNGEN	GER
	LAVANDERIA	ITA
	RENGJØRING & VASKERI	NOR
	LAVANDARIA E TINTURARIA	POR
	CISTIARNA & PRACOVNA	SLO
	LAVANDERIA Y TINTE	SPA
	STÄDNING & TVÄTTERI	SWE
9504	**HAIR & BEAUTY**	**ENG**
	KADERNICTVI & KOSMETIKA	CZE
	HÅR & SØNHEDSPLEJE	DAN
	HAAR EN SCHOONHEID	DUT
	HIUS & KAUNEUS	FIN
	COIFFEUR, INSTITUT DE BEAUTÉ	FRE
	FRISEUR, KOSMETIK, SCHÖNHEIT	GER
	PARRUCCHIERE E CENTRO ESTETICO	ITA
	HÅR & SKJØNNHETSPLEIE	NOR
	CABELEIREIRO	POR
	KADERNICTVO & KOZMETIKA	SLO
	SALÓN DE BELLEZA	SPA
	HÅR & SKÖNHET	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9505	**HEALTH CARE SERVICE**	**ENG**
	ZDRAVOTNICKA SLUZBA	CZE
	SUNDHEDSSERVICE	DAN
	GEZONDHEID EN VERZORGING	DUT
	TERVEYDENHOITO	FIN
	SERVICE DE SANTÉ	FRE
	GESUNDHEITSVORSORGE UND -PFLEGE	GER
	SERVIZIO DI CURA DELLA SALUTE	ITA
	HELSETJENESTE	NOR
	CENTRO DE SAÚDE	POR
	ZDRAVOTNA SLUZBA	SLO
	AMBULANTORIO	SPA
	HÄLSOVÅRD	SWE
9506	**MOVER**	**ENG**
	STEHOVANI	CZE
	FLYTTEFORRETNING	DAN
	VERHUIZER	DUT
	DÉMÉNAGEUR	FRE
	MÖBELTRANSPORTEUR	GER
	TRASLOCHI	ITA
	FLYTTEFIRMA	NOR
	MUDANÇAS	POR
	STEHOVANIE	SLO
	MUDANZAS	SPA
	FLYTTFIRMA	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9507	**PHOTOGRAPHY**	**ENG**
	FOTOGRAF	CZE
	FOTOHANDLERE	DAN
	FOTOGRAFIE	DUT
	VALOKUVAAMO	FIN
	PHOTOGRAPHE	FRE
	PHOTOGRAPHIE	GER
	FOTOGRAFIA	ITA
	FOTOHANDEL	NOR
	FOTOGRAFIA	POR
	FOTOGRAF	SLO
	FOTOGRAFÍA	SPA
	FOTOHANDLARE	SWE
9508	**VIDEO & GAME RENTAL**	**ENG**
	VIDEOPUJCOVNA	CZE
	VIDEO & SPIL UDLEJNING	DAN
	VIDEO & SPEL VERHUUR	DUT
	MAGASIN DE VIDÉO	FRE
	VIDEO- UND SPIELEVERLEIH	GER
	NOLEGGIO VIDEO E GIOCHI	ITA
	VIDEO- & SPILLUTLEIE	NOR
	VIDEO CLUB	POR
	VIDEO POZICOVNA	SLO
	VIDEO Y ALQUILER DE JUEGOS	SPA
	VIDEO- & SPELUTHYRNING	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9509	**STORAGE**	**ENG**
	SKLAD	CZE
	OPBEVARING	DAN
	OPSLAG	DUT
	ENTREPÔT/STOCKAGE	FRE
	LAGERUNG	GER
	DEPOSITO	ITA
	LAGER	NOR
	ARMAZEM	POR
	SKLADISKO	SLO
	ALMACÉN	SPA
	LAGER	SWE
9510	**TAILOR & ALTERATION**	**ENG**
	KREJCOVSTVI & UPGRAVY ODEVU	CZE
	SKRÆDDERE & FORANDRING	DAN
	KLEERMAKER EN HERSTEL	DUT
	TAILLEUR	FRE
	SCHNEIDEREI & ÄNDERUNGSSCHNEIDEREI	GER
	SARTORIA	ITA
	SKREDDER	NOR
	ALFAIATE	POR
	KRAJCAR & PRESIVANIE ODEVU	SLO
	SASTRE Y ARREGLOS	SPA
	SKRÄDDARE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9511	**TAX SERVICE**	**ENG**
	DANOVE PORADENSTVI	CZE
	SKATTE SERVICE	DAN
	BELASTING DIENSTEN	DUT
	PERCEPTION	FRE
	STEUERBERATUNG	GER
	SERVIZIO IMPOSTE	ITA
	SKATTESERVICE	NOR
	BAIRROS FISCAIS	POR
	DANOVE PORADENSTVO	SLO
	OFICINA DE IMPEUSTOS	SPA
	SKATTESERVICE	SWE
9512	**REPAIR SERVICE**	**ENG**
	OPRAVNA	CZE
	REPARATIONSSERVICE	DAN
	REPARATIE DIENSTEN	DUT
	SERVICE DE RÉPARATION	FRE
	REPARATUR SERVICE	GER
	RIPARAZIONI	ITA
	REPERASJONSSERVICE	NOR
	SERVIÇO DE REPARAÇÃO	POR
	OPRAVAREN	SLO
	SERVICIO DE REPARACIÓN	SPA
	REPARATIONSSERVICE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9513	**RETIREMENT/NURSING HOME**	**ENG**
	DOMOV DUCHODCU	CZE
	ALDERDOMS-/GEHANDLINGSHJEM	DAN
	OUDE VANDAGEN TEHUIS	DUT
	MAISON DE RETRATRE (EMS)	FRE
	ALTEN-/PFLEGENHEIM	GER
	CASE DI RIPOSO/ASILO NIDO	ITA
	GAMLEHJEM/ALDERSPLEIE	NOR
	CASA DE CONVALESCÊNCIA	POR
	DOMOV DOCHODCOV	SLO
	CENTRO DE JUBILADOS/CASA DE CONVALECENCI	SPA
	ÅLDERDOMS-/BEHANDLINGHEM	SWE
9514	**SOCIAL SERVICE**	**ENG**
	SOCIALNI SLUZBA	CZE
	SOCIAL SERVICE	DAN
	SOCIALE DIENST	DUT
	SERVICE SOCIAL	FRE
	FÜRSORGE/WOHLFAHRT	GER
	SERVIZIO SOCIALE	ITA
	SOSIALTJENESTE	NOR
	SERVIÇO SOCIAL	POR
	SOCIALNA SLUZBA	SLO
	SERVICIO SOCIAL	SPA
	SOCIAL SERVICE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9515	**UTILITIES**	**ENG**
	SAMFUNDSSERVICE (VAND & ENERGI)	DAN
	NUTSBEDRIJVEN	DUT
	SERVICE PUBLIC	FRE
	VER- UND ENTSORGUNGSBETRIEBE	GER
	PUBBLICA UTILITÀ	ITA
	SAMFUNNSTJENESTE (VANN & ENERGI)	NOR
	SERVIÇO PÚBLICO	POR
	SERVICIO PÚBLICO	SPA
	SAMHÄLLSSERVICE	SWE
9516	**WASTE & SANITARY**	**ENG**
	OPDAD & ZDRAVOTNICKY MATERIAL	CZE
	AFFALDSHÅNDTERING	DAN
	AFVAL VERWERKING & SANITAIR	DUT
	JÄTEHUOLTO & TERVEYS	FIN
	DÉCHETS SANITAIRES	FRE
	ABFALLBETRIEBE & DEPONIEN	GER
	RIFUTI E SANITARI	ITA
	AVFALLSHÅNDTERING	NOR
	SERVIÇOS DE SANEAMENTO	POR
	ODPAD & ZDRAVOTNICKY MATERIAL	SLO
	BASURERO	SPA
	AVFALLSHANTERING	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9517	**CAMPGROUND**	**ENG**
	KEMPINK	CZE
	CAMPING	DAN
	KAMPEERTERREIN	DUT
	LEIRINTÄ	FIN
	CAMPING	FRE
	CAMPING	GER
	CAMPEGGIO	ITA
	CAMPING	NOR
	PARQUE DE CAMPISMO	POR
	KEMPING	SLO
	CAMPING	SPA
	CAMPING	SWE
9518	**AUTO PARTS**	**ENG**
	AUTODILY	CZE
	BILDELE	DAN
	AUTO ONDERDELEN	DUT
	CASSE	FRE
	AUTOTEILE UND -ZUBEHÖR	GER
	AUTORICAMBI	ITA
	BILDELER	NOR
	ACESSÓRIOS AUTOMOVEIS	POR
	AUTO DIELY	SLO
	RECAMBIOS DE VEHÍCULOS	SPA
	BILDELAR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9519	**CAR WASH/DETAILING**	**ENG**
	MYCKA AUT	CZE
	BIL VASK	DAN
	AUTOWASSERETTES	DUT
	LAVAGE DE VOITURE	FRE
	AUTOPFLEGE	GER
	AUTOLAVAGGIO	ITA
	BILVASK	NOR
	LAVAGEM AUTOMÁTICA	POR
	MYCKA AUT	SLO
	AUTO LAVADO	SPA
	BILTVÄTT	SWE
9520	**LOCAL TRANSIT**	**ENG**
	MISTNI DOPRAVA	CZE
	LOKAL TRANSPORT (TRANSIT)	DAN
	LOKAAL	DUT
	TRANSIT LOCAL	FRE
	LOKALER TRANSIT	GER
	TRANSITO LOCALE	ITA
	LOKALTRANSPORT	NOR
	TRÂNSITO LOCAL	POR
	MIESTNA PREPRAVA	SLO
	TRÁFICO LOCAL	SPA
	LOKALTRANSPORT	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9521	**TRAVEL AGENT & TICKETING**	**ENG**
	CESTOVNI KANCELAR	CZE
	REJSEBUREAU	DAN
	KAARTENVERKOOP	DUT
	MATKATOIMISTO	FIN
	AGENCE DE VOYAGE	FRE
	REISEBÜRO	GER
	AGENZIA VIAGGI	ITA
	REISEBYRÅ	NOR
	AGENCIA DE VIAGENS	POR
	CESTOVNA KANCELARIA	SLO
	AGENCIA DE VIAJES	SPA
	RESEBYRÅ	SWE
9522	**TRUCK STOP/PLAZA**	**ENG**
	ODPOCIVKA KAMIONU	CZE
	LASTBILSSTOP	DAN
	TRUCKERSTOP	DUT
	AIRE DE STATIONNEMENT POUR CAMIONS	FRE
	LKW-RASTSTÄTTE	GER
	PIAZZOLA DI SOSTA PER CAMION	ITA
	LASTEBILSTOPP	NOR
	ESTACIONAMENTO DE PESADOS	POR
	ODPOCIVKA PRE KAMIONOV	SLO
	PARADA DE CAMIONES	SPA
	LASTBILSSTOP	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9523	**CHURCH**	**ENG**
	KOSTEL	CZE
	KIRKE	DAN
	KERK	DUT
	KIRKKO	FIN
	ÉGLISE	FRE
	KIRCHE	GER
	CHIESA	ITA
	KIRKE	NOR
	IGREJA	POR
	KOSTOL	SLO
	IGLESIA	SPA
	KYRKA	SWE
9524	**SYNAGOGUE**	**ENG**
	SYNAGOGE	CZE
	SYNAGOGE	DAN
	SYNAGOGE	DUT
	SYNAGOGA	FIN
	SYNAGOGUE	FRE
	SYNAGOGE	GER
	SINAGOGA	ITA
	SYNAGOGE	NOR
	SINAGOGA	POR
	SYNAGOGA	SLO
	SINAGOGA	SPA
	SYNAGOGA	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9525	**GOVERNMENT OFFICES**	**ENG**
	VLADNI URAD	CZE
	MINISTERIER	DAN
	OVERHEIDSKANTOREN	DUT
	MINISTERIÖ	FIN
	MINISTÈRES	FRE
	BEHÖRDEN	GER
	UFFICI GOVERNATIVI	ITA
	DEPARTEMENT	NOR
	ORGANISMOS GOVERNAMENTAIS	POR
	VLADNI URAD	SLO
	ORGANISMOS OFICIALES	SPA
	DEPARTEMENT	SWE
9527	**FIRE DEPARTMENT**	**ENG**
	HASICI	CZE
	BRANDVÆSENET	DAN
	BRANDWEER	DUT
	BORNE D'INCENDIE	FRE
	FEUERWEHRSTATION	GER
	VIGILI DEL FUOCO	ITA
	BRANNSTASJON	NOR
	BOMBEIROS	POR
	POZARNA SLUZBA	SLO
	CUERPO DE BOMBEROS	SPA
	BRANDSTATION	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9528	**ROAD ASSISTANCE**	**ENG**
	SILNICNI SLUZBA	CZE
	VEJASSISTANCE	DAN
	ANWB-HULPDIENST	DUT
	ASSISTANCE ROUTIÈRE	FRE
	VERKEHRSCLUBS	GER
	ASSISTENZA STRADALE	ITA
	VEIASSISTANSE	NOR
	ASSISTENCIA EM VIAGEM	POR
	SILNICNA SLUZBA	SLO
	ASISTENCIA EN CARRETERA	SPA
	VÄGASSISTANS	SWE
9529	**FUNERAL DIRECTOR**	**ENG**
	POHREBNI SLUZBA	CZE
	BEDEMAND	DAN
	BEGRAFENIS DIRECTEUR/ONDERNEMER	DUT
	HAUTAUSURAKOITSIJA	FIN
	POMPES FUNÈBRES	FRE
	BESTATTUNGSUNTERNEHMEN	GER
	IMPRESA FUNEBRE	ITA
	BEGRAVNINGSBYRÅ	NOR
	AGENCIA FUNERARIA	POR
	POHREBNA SLUZBA	SLO
	AGENTE FUNERARIO	SPA
	BEGRAVNINGSENTREPRENÖR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9530	**POST OFFICE**	**ENG**
	POSTA	CZE
	POSTHUS	DAN
	POSTKANTOOR	DUT
	POSTITOIMISTO	FIN
	POSTE	FRE
	POSTAMT	GER
	UFFICIO POSTALE	ITA
	POSTKONTOR	NOR
	POSTO DE CORREIOS	POR
	POSTA	SLO
	OFICINA DE CORREOS	SPA
	POSTKONTOR	SWE
9531	**BANQUET HALL**	**ENG**
	SPOLECENSKA MISTNOST	CZE
	FESTSAL	DAN
	FEESTZAAL	DUT
	SALLE DES BANQUETS	FRE
	FESTHALLE/FESTSAAL	GER
	SALA PER BANCHETTI	ITA
	FESTSAL	NOR
	SALA DE BANQUETES	POR
	SPOLECENSKA MIESTNOST	SLO
	SALE DE BANQUETES	SPA
	FESTVÅNING	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9532	**BAR OR PUB**	**ENG**
	BAR CI HOSPODA	CZE
	BAR ELLER PUB	DAN
	BAR OF CAFÉ	DUT
	BAARI TAI PUBI	FIN
	BAR OU PUB	FRE
	GASTSTÄTTE	GER
	BAR O PUB	ITA
	BAR ELLER PUB	NOR
	BARE E PUB	POR
	VYCAP ALEBO KRCMA	SLO
	BAR O PUB	SPA
	BAR ELLER PUB	SWE
9533	**COCKTAIL LOUNGE**	**ENG**
	COCKTAILBAR	DAN
	COCKTAILBAR	DUT
	SEKOITUSBAARI	FIN
	BAR À COCKTAIL	FRE
	COCKTAILSTUBE	GER
	SALA DA COCKTAIL	ITA
	COCKTAILBAR	NOR
	SALÃO DE COCKTAIL	POR
	SALA DE COCKTAIL	SPA
	COCKTAILBAR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9534	**NIGHT CLUB**	**ENG**
	NOCNI KLUB	CZE
	NATKLUB	DAN
	NACHTCLUB	DUT
	YÖKERHO	FIN
	DISCOTHÈQUE (ALSO NIGHT CLUB)	FRE
	NACHTCLUB	GER
	NIGHT CLUB	ITA
	NATTKLUBB	NOR
	CLUBE NOCTURNO	POR
	NOCNY KLUB	SLO
	NIGHT CLUB	SPA
	NATKLUBB	SWE
9535	**CONVENIENCE STORE**	**ENG**
	DØGNBUTIK	DAN
	SUPERMARKT	DUT
	ÉPICERIE (OPEN DURING THE NIGHT)	FRE
	LEBENSMITTELGESCHÄFT	GER
	SUPERMERCATO	ITA
	DØGNÅPEN BUTIKK	NOR
	COMIDA PREPARADA/FAST FOOD	POR
	COMIDA PREPARADA	SPA
	JOURBUTIK	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9536	**SPECIALITY FOOD STORE**	**ENG**
	LAHUDKY	CZE
	DELIKATESSE	DAN
	DELICATESSEN WINKEL	DUT
	ÉPICERIE FINE	FRE
	DELIKATESSENGESCHÄFTE	GER
	SPECIALITÀ GASTRONOMICHE	ITA
	DELIKATESSEBUTIKK	NOR
	CASA DE PASTO/SNACK BAR	POR
	LAHODKY	SLO
	TIENDA DE COMESTIBLES	SPA
	DELIKATESSBUTIK	SWE
9537	**CLOTHING STORE**	**ENG**
	ODEVY	CZE
	TØJBUTIK	DAN
	KLEDINGZAAK	DUT
	MAGASIN DE VÊTEMENTS	FRE
	BEKLEIDUNGSGESCHÄFT	GER
	NEGOZIO DI ABBIGLIAMENTO	ITA
	KLESBUTIKK	NOR
	PRONTO A VESTIR	POR
	ODIEVANIE	SLO
	TIENDA DE ROPA	SPA
	KLÄDAFFÄR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9538	**MEN'S APPAREL**	**ENG**
	PANSKE ODEVY	CZE
	HERRETØJ	DAN
	HERENKLEDING	DUT
	MIESTEN VAATETUSLIIKE	FIN
	VÊTEMENTS POUR HOMME	FRE
	HERRENBEKLEIDUNG	GER
	ABBIGLIAMENTO MASCHILE	ITA
	HERRETØY	NOR
	MODA HOMENS	POR
	PANSKE ODIEVANIE	SLO
	MODA HOMBRES	SPA
	HERRKLÄDER	SWE
9539	**SHOE STORE**	**ENG**
	OBUV	CZE
	SKOFORRETNING	DAN
	SCHOENEN ZAAK	DUT
	MAGASIN DE CHAUSSURES	FRE
	SCHUHGESCHÄFT	GER
	NEGOZIO DI CALZATURE	ITA
	SKOFORRETNING	NOR
	SAPATARIA	POR
	OBUVNICTVO	SLO
	ZAPATERÍA	SPA
	SKOAFFÄR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9540	**SPECIALTY CLOTHING STORE**	**ENG**
	SPECIALNI ODEVY	CZE
	SPECIAL TØJBUTIK	DAN
	KLEDING SPECIALLZAAK	DUT
	MAGASIN DE VÊTEMENTS SPÉCIALISÉ	FRE
	SPEZIELLE BEKLEIDUNGSGESCHÄFTE	GER
	NEGOZIO DI ABBIGLIAMENTO PARTICOLARE	ITA
	SPESIALKLESBUTIKK	NOR
	LOJA ESPECIALIZADA EM ROUPA	POR
	SPECIALNE ODIEVANIE	SLO
	TIENDA ESPECIAIZADA EN ROPA	SPA
	SPECIAL KLÄDAFFÄR	SWE
9541	**WOMEN'S APPAREL**	**ENG**
	DAMSKE ODEVY	CZE
	DAMETØJ	DAN
	DAMESKLEDING	DUT
	MAGASIN POUR FEMME	FRE
	DAMENBEKLEIDUNG	GER
	ABBIGLIAMENTO FEMMINILE	ITA
	DAMETØY	NOR
	MODA MULHERES	POR
	DAMSKE ODIEVANIE	SLO
	MODA MUJERES	SPA
	DAMKLÄDER	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9542	**CHECK CASHING SERVICE**	**ENG**
	CHECKINDLØSE	DAN
	GELDOPNAME SERVICE	DUT
	ENCAISSEMENT DES CHÈQUES	FRE
	CHECKEINLÖSUNG	GER
	SERVIZIO DI CAMBIO ASSEGNI	ITA
	CHECKINNLØSING	NOR
	SERVIÇOS BANCARIOS	POR
	SERVICIO DE CAMBIO	SPA
	CHECKINLÖSNING	SWE
9544	**MONEY TRANSFERRING SERVICE**	**ENG**
	SMENARNA	CZE
	PENGE TRANSFERERINGSSERVICE	DAN
	DIENST	DUT
	CONVOYEURS DE FONDS	FRE
	GELDÜBERWEISUNG	GER
	SERVIZIO DI TRASFERIMENTO VALUTA	ITA
	PENGEOVERFØRINGSSERVICE	NOR
	SERVIÇOS BANCARIOS	POR
	ZMENAREN	SLO
	SERVICIO DE TRASFERENCIA MONETARIA	SPA
	PENGA TRANSFERERINGSSERVICE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9545	**DEPARTMENT STORE**	**ENG**
	OBCHODNI DUM	CZE
	VAREHUS	DAN
	WARENHUIS	DUT
	TAVARATALO	FIN
	GRANDE SURFACE	FRE
	KAUFHAUS	GER
	GRANDE MAGAZZINO	ITA
	VAREHUS	NOR
	GRANDES ARMAZENS	POR
	OBCHODNY DOM	SLO
	GRAN ALMECÉN	SPA
	VARUHUS	SWE
9546	**DISCOUNT STORE**	**ENG**
	LEVNE ZBOZI	CZE
	LAVPRISVARAHUS	DAN
	KORTINGSZAAK	DUT
	MAGASIN DISCOUNT	FRE
	DISCOUNTER/BILLIGMÄRKTE	GER
	DISCOUNT	ITA
	LAVPRISVAREHUS	NOR
	LOJAS DE DISCONTO	POR
	ZLAVNENE ZBOZIE	SLO
	ECONOMATO	SPA
	LÅGPRISVARUHUS	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9547	**OTHER GENERAL MERCHANDISE**	**ENG**
	ANDEN DETAILHANDEL	DAN
	HANDELSWAAR	DUT
	GRANDE SURFACE	FRE
	HAUSHALTSWAREN- & ANDERE GESCHÄFTE	GER
	NEGOZIO DI ARTICOLI GENERALI	ITA
	ANNEN DETALJHANDEL	NOR
	LOJA DE ARTIGOS GERAIS	POR
	TIENDA DE ARTÍCULOS EN GENERAL	SPA
	ANNAN DETALJHANDEL	SWE
9548	**VARIETY STORE**	**ENG**
	BAZAR	CZE
	DIVERSE FORRETNING	DAN
	BAZAR	DUT
	“BRIC-À-BRAC”	FRE
	GEMISCHTWARENGESCHÄFTE	GER
	NEGOZIO DI ARTICOLI DIVERSI	ITA
	DIVERSE BUTIKK	NOR
	LOJA DE ARGITOS VÁRIOS	POR
	BAZAR	SLO
	TIENDA DE ARTÍCULOS VARIOS	SPA
	DIVERSE AFFÄR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9549	**GARDEN CENTER**	**ENG**
	ZAHRADNICKE CENTRUM	CZE
	HAVECENTER	DAN
	TUINCENTRUM	DUT
	JARDINERIE	FRE
	GARTENCENTER	GER
	CENTRO DI GIARDINAGGIO	ITA
	HAGESENTER	NOR
	CENTRO DE JARDINAGEM	POR
	ZAHRADNICKE CENTRUM	SLO
	JARDINERÍA	SPA
	TRÄDGÅRDSCENTER	SWE
9550	**GLASS & WINDOW**	**ENG**
	SKLENARSTVI	CZE
	GLAS & VINDUER	DAN
	GALS EN RAMEN	DUT
	LASI & IKKUNA	FIN
	VITRERIE	FRE
	GLAS & FENSTER	GER
	VETRO E FINESTRE	ITA
	GLASS & VINDUER	NOR
	VIDROS E JANELAS	POR
	SKLENARSTVO	SLO
	CRISTAL Y VENTANAS	SPA
	GLAS & FÖNSTER	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9551	**HARDWARE STORE**	**ENG**
	ZELEZARSTVI	CZE
	ISENKRAMFORRETNING	DAN
	DOE-HET-ZELF WINKEL/BOUWMARKT	DUT
	CENTRE BRICOLAGE	FRE
	EISENWAREN	GER
	FERRAMENTA	ITA
	JERNVAREHANDEL	NOR
	LOJA DE FERRAGENS	POR
	ZELEZARSTVO	SLO
	FERRETERÍA	SPA
	JÄRNHANDEL	SWE
9552	**HOME CENTER**	**ENG**
	VSE PRO DOMACNOST	CZE
	DOE-HET-ZELF WINKEL/BOUWMARKT	DUT
	CENTRE BRICOLAGE	FRE
	BAU- UND HEIMWERKERMÄRKTE	GER
	CENTRO PER LA CASA	ITA
	BUTIKK FOR HJEMMET	NOR
	LOJA DE ARTIGOS PARA O LAR	POR
	VSETKO PRE DOMACNOST	SLO
	CENTRO PARA LA CASA	SPA

Facility Types (Continued)

Facility Code	Description	Language code
9553	**LUMBER**	**ENG**
	VETESNICTVI	CZE
	BYGGEMARKED	DAN
	HOUTHANDEL	DUT
	BOIS DE CONSTRUCTION	FRE
	BAU- UND NUTZHOLZ	GER
	BRICOLAGE	ITA
	BYGGVAREHUS	NOR
	BRICOLAGEM	POR
	VETESNICTVO	SLO
	BRICOLAJE	SPA
	BYGGVARUHUS	SWE
9554	**OTHER HOUSE & GARDEN**	**ENG**
	DUM & ZAHRADA	CZE
	ØVRIGE HUS & HAVE	DAN
	OVERIGE HUIS & TUIN	DUT
	MAISON ET JARDINAGE	FRE
	ÜBRIGER HUAS & GARTENBEDARF	GER
	CASALINGHI E GIARDINAGGIO	ITA
	ØVRIGE HUS & HAGE	NOR
	CASA E JARDIN	POR
	DOM & ZAHRADA	SLO
	CASA Y JARDÍN	SPA
	ÖVRIGT HUS & TRÄDGÅRD	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9555	**PAINT**	**ENG**
	MALIRSTVI	CZE
	MALERFARVE	DAN
	VERF	DUT
	MAALI	FIN
	PEINTURE	FRE
	FARBEN UND MALEREIBEDARF	GER
	PITTURA E VERNICIATURA	ITA
	MALEFARGE	NOR
	PINTURA	POR
	MALIARSTVO	SLO
	PINTURA	SPA
	MÅLARFÄRG	SWE
9556	**ENTERTAINMENT ELECTRONICS**	**ENG**
	ELEKTRONIKA	CZE
	ELEKTRONIK	DAN
	ELEKTRONICA	DUT
	ELEKTRONIIKKA	FIN
	SALLE DE JEUX	FRE
	ELEKTRONIC	GER
	ELETTRONICA	ITA
	ELEKTRONIKK	NOR
	ELECTRÓNICA	POR
	ELEKTRONIKA	SLO
	ELECTRÓNICA	SPA
	ELEKTRONIK	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9557	**FLOOR & CARPET**	**ENG**
	PODLAHY & KOBERCE	CZE
	GULVE & TÆPPER	DAN
	VLOER & TAPIJT	DUT
	LATTIA & MATOT	FIN
	MAGASIN DE TAPIS	FRE
	BODENBELÄGE	GER
	PAVIMENTI E TAPPETI	ITA
	GULV & TEPPER	NOR
	PAVIMENTOS E ALCATIFAS	POR
	PODLAHY & KOBERCE	SLO
	SUELOS Y ALFOMBRAS	SPA
	GOLV & MATTOR	SWE
9558	**FURNITURE STORE**	**ENG**
	NABYTEK	CZE
	MØBELFORRETNING	DAN
	MEUBELWINKEL	DUT
	MAGASIN DE MEUBLES	FRE
	MÖBELGESCHÄFT	GER
	MOBILIFICIO	ITA
	MØBELFORRETNING	NOR
	LOJA DE MOBILIARIO	POR
	NABYTOK	SLO
	TIENDA DE MUEBLES	SPA
	MÖBELAFFÄR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9559	**MAJOR APPLIANCE**	**ENG**
	VELKE SPOTREBICE	CZE
	HÅRDE HVIDEVARER	DAN
	GROOT GEREEDSCHAP	DUT
	ÉLECTROMENAGER	FRE
	ELEKTROGERÄTE	GER
	ELETTRODOMESTICI	ITA
	HVITEVARER	NOR
	ELECTRODOMÉSTICOS	POR
	VELKE SPOTREBICE	SLO
	ELECTRODOMÉSTICOS	SPA
	VITVAROR	SWE
9560	**HOME SPECIALTY STORE**	**ENG**
	DOMACI POTREBY	CZE
	SPECIALITEITEN WINKEL	DUT
	MAGASIN D'AMEUBLEMENT	FRE
	EINRICHTUNGSGESCHÄFT	GER
	NEGOZIO DI SPECIALITÀ PER LA CASA	ITA
	BUTIKK FOR HJEMMET	NOR
	ARTIGOS PARA O LAR	POR
	DOMCIE POTREBY	SLO
	ARTÍCULOS DEL HOGAR	SPA

Facility Types (Continued)

Facility Code	Description	Language code
9561	**COMPUTER & SOFTWARE**	**ENG**
	POCITAGE & SOFTWARE	CZE
	EDB & SOFTWARE	DAN
	COMPUTER & SOFTWARE	DUT
	TIETOKONE & OHJELMISTO	FIN
	ORDINATEUR ET SOFTWARE	FRE
	COMPUTER & SOFTWARE	GER
	COMPUTER & SOFTWARE	ITA
	DATAMASKINER & PROGRAMVARE	NOR
	INFORMÁTICA	POR
	POCITACE & SOFTWARE	SLO
	COMPUTER Y SOFTWARE	SPA
	DATORER & MJUKVARA	SWE
9562	**FLOWERS & JEWELRY**	**ENG**
	KVETINARSTVI & BIZUTERIE	CZE
	BLOMSTER & SMYKKER	DAN
	BLOEMEN & SIERADEN	DUT
	KUKKIA & KORU	FIN
	FLEURISTE ET BIJOUTERIE	FRE
	BLUMEN & SCHMUCK	GER
	FIORI E GIOIELLI	ITA
	BLOMSTER & SMYKKER	NOR
	FLORES E JÓIAS	POR
	KVETINARSTVO & BIZUTERIE	SLO
	FLORES Y JOYAS	SPA
	BLOMMOR & SMYCKEN	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9563	**GIFT, ANTIQUE, & ART**	**ENG**
	DARKY, STAROZITNOSTI & UMENI	CZE
	GAVER, ANTIKVITETER & KUNST	DAN
	GESCHENKEN, ANTIEK & KUNST	DUT
	CADEAU, ANTIQUAIRE & ART	FRE
	GESCHENKARTIKEL, ANTIQUITÄTEN, KUNSTWARE	GER
	ANTIQUARIATO	ITA
	GAVER, ANTIKVITETER & KUNST	NOR
	ANTIQUARIO	POR
	DARCEKY, STAROZITNOSTI & UMENIE	SLO
	ANTICUARIO	SPA
	PRESENTER, ANTIKVITETER & KONST	SWE
9564	**OPTICAL**	**ENG**
	OPTIKA	CZE
	OPTIKERE	DAN
	OPTISCH	DUT
	OPTIKKO	FIN
	OPTICIEN	FRE
	OPTIKER	GER
	OTTICA	ITA
	OPTIKERE	NOR
	OPTICA/OCULISTA	POR
	OPTIKA	SLO
	ÓPTICA	SPA
	OPTIKER	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9565	**PHARMACY**	**ENG**
	LEKARNA	CZE
	APOTEK	DAN
	APOTHEEK	DUT
	APTEEKKI	FIN
	PHARMACIE	FRE
	APOTHEKE	GER
	FARMACIA	ITA
	APOTEK	NOR
	FARMÁCIA	POR
	LEKAREN	SLO
	FARMACIA	SPA
	APOTEK	SWE
9566	**RECORD, CD, & VIDEO**	**ENG**
	PLDER, CD & VIDEO	DAN
	PLAAT, CD & VIDEO	DUT
	ENREGISTREMENT, CD-ROOM ET VIDÉO	FRE
	SCHALLPLATTEN, CD & VIDEO	GER
	DISCHI, CD E VIDEO	ITA
	DISCOTECA	POR
	DISCOS, CD Y VÍDEO	SPA
	SKIVOR, CD & VIDEO	SWE
9567	**SPECIALTY STORE**	**ENG**
	SPECIALBUTIK	DAN
	SPECIAALZAAK	DUT
	ÉPICERIE SPÉCIALISÉE	FRE
	SPEZIELGESCHÄFTE	GER
	NEGOZIO DI SPECIALITÀ	ITA
	SPESIALBUTIKK	NOR
	LOJA DE ESPECIALIDADE	POR
	NEGOCIO ESPECIALIZADO	SPA
	SPECIALBUTIK	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9568	**SPORTING GOODS**	**ENG**
	SPORTOVNI ZBOZI	CZE
	SPORTSARTIKLER	DAN
	SPORTARTIKELEN	DUT
	MAGASIN DE SPORTS	FRE
	SPORTWAREN	GER
	ATTREZATURA SPORTIVA	ITA
	SPORTSARTIKLER	NOR
	LOJA DE DESPORTO	POR
	SPORTOVNE ZBOZIE	SLO
	DEPORTE Y AVENTURA	SPA
	SPORTARTIKLER	SWE
9569	**WINE & LIQUOR**	**ENG**
	VINO & NAPOJE	CZE
	VIN & LIKØR	DAN
	WIJN & LIKEUR	DUT
	VIINI & LIKÖÖRI	FIN
	VIN ET LIQUEUR	FRE
	WEIN AND LIKÖR	GER
	VINI E LIQUORI	ITA
	VINMONOPOLET	NOR
	ADEGA	POR
	VINO & NAPOJE	SLO
	VINO Y LICOR	SPA
	SYSTEMBOLAGET	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9570	**BOATING**	**ENG**
	VODACKE POTREBY	CZE
	BÅDE OG VANDSPORT	DAN
	VAREN	DUT
	NAVIGATION DE PLAISANCE	FRE
	BOOT- UND WASSERSPORT	GER
	CANOTTAGGIO	ITA
	BÅTER & VANNSPORT	NOR
	PORTO DESPORTIVO	POR
	VODACKE POTREBY	SLO
	EMBARCADERO	SPA
	BÅTAR & VATTENSPORT	SWE
9571	**THEATER**	**ENG**
	DIVADLO	CZE
	BIOGRAF	DAN
	BIOSCOOP	DUT
	CINEMA	FRE
	KINO	GER
	CINEMA	ITA
	KINO	NOR
	CINEMA	POR
	DIVADLO	SLO
	CINE	SPA
	BIO	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9572	**RACE TRACK**	**ENG**
	ZAVODNI OKRUH	CZE
	KAPØBNINGSBANE	DAN
	RACE CICUIT	DUT
	COURSE DE VOITURES	FRE
	RENNBAHN	GER
	CIRCUITO SPORTIVO	ITA
	KAPPLØPSBANE	NOR
	PISTA DE CORRIDA	POR
	PRETEKARSKY OKRUH	SLO
	CIRCUITO DE CARRERAS	SPA
	KAPPLÖPNINGSBANA	SWE
9573	**GOLF PRACTICE RANGE**	**ENG**
	CVICNE GOLFOVE HRISTE	CZE
	DRIVINGRANGE	DAN
	GOLF OEFENVELD	DUT
	PRACTISE DE GOLF	FRE
	GOLFÜBUNGSPLATZ	GER
	AREA PER GOLF	ITA
	DRIVING RANGE	NOR
	CAMPO DE TREINO DE GOLF	POR
	CVICNE GOLFOVE IHRISKO	SLO
	PRÁCTICA DE GOLF	SPA
	DRIVING RANGE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9574	**HEALTH CLUB**	**ENG**
	HELSECENTER	DAN
	GEZONDHEIDSCLUB	DUT
	CLUB DE FORM	FRE
	GESUNDHEITSCLUBS	GER
	CLUB DELLA SALUTE	ITA
	HELSESENTER	NOR
	HEALTH CLUB	POR
	CLUB DE SALUD	SPA
	HÄLSOCENTER	SWE
9575	**BOWLING ALLEY**	**ENG**
	BOWLINGOVE CENTRUM	CZE
	BOWLINGHAL	DAN
	BOWLINGCENTRUM	DUT
	BOWLING	FRE
	BOWLING/KEGELN	GER
	BOWLING	ITA
	BOWLINGHALL	NOR
	CENTRO DE “BOWLING”	POR
	BOWLINGOVE CENTRUM	SLO
	BOLERA	SPA
	BOWLINGHALL	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9576	**SPORTS ACTIVITIES**	**ENG**
	SPORTOVNI AKTIVITY	CZE
	SPORTSAKTIVITETER	DAN
	SPORT ACTIVITEITEN	DUT
	ACTIVITÉS SPORTIVES	FRE
	SPORTAKTIVITÄTEN	GER
	ATTIVITÀ SPORTIVE	ITA
	SPORTSAKTIVITETER	NOR
	ACTIVIDADES DESPORTIVAS	POR
	SPORTOVE AKTIVITY	SLO
	ACTIVIDADES DEPORTIVAS	SPA
	SPORTAKTIVITETER	SWE
9578	**ATTORNEY**	**ENG**
	ADVOKAT	CZE
	ADVOKAT	DAN
	ADVOCAAT	DUT
	ASIANAJAJA	FIN
	AVOCAT	FRE
	RECHTSANWALT	GER
	AVVOCATO	ITA
	ADVOKAT	NOR
	ADVOGADO	POR
	ADVOKAT	SLO
	ABOGADO	SPA
	ADVOKAT	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9579	**DENTIST**	**ENG**
	ZUBNI LEKAR	CZE
	TANDLÆGE	DAN
	TANDARTS	DUT
	HAMMASLÄÄKÄRI	FIN
	DENTISTE	FRE
	ZAHNARZT	GER
	DENTISTA	ITA
	TANNLEGE	NOR
	DENTISTA	POR
	ZUBNY LEKAR	SLO
	DENTISTA	SPA
	TANDLÄKARE	SWE
9580	**PHYSICIAN**	**ENG**
	LEKAR	CZE
	LÆGE	DAN
	ARTS	DUT
	LÄÄKÄRI	FIN
	MÉDECIN	FRE
	ARZT	GER
	MEDICI GENERICO	ITA
	DOKTER	NOR
	MÉDICO	POR
	LEKAR	SLO
	MÉDICO	SPA
	LÄKARE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9581	**REALTOR**	**ENG**
	REALITNI MAKLER	CZE
	EJENDOMSMÆGLER	DAN
	MAKELAAR	DUT
	KIINTEISTÖNVÄLITTÄJÄ	FIN
	AGENCE IMMOBILIÈRE	FRE
	MAKLER	GER
	AGENTE IMMOBILIARE	ITA
	EIENDOMSMEGLER	NOR
	MEDIADOR IMOBILIÁRIO	POR
	REALITNY AGENT	SLO
	AGENTE DE LA PROPIEDAD INMOBILIARIA	SPA
	FASTIGHETSMÄKLARE	SWE
9582	**RV PARKS**	**ENG**
	TERRAIN DE CAMPING	FRE
	CAMPINGPLATZ	GER
	PARQUE DE CAMPISMO	POR
	CAMPING	SPA
9583	**MEDICAL SERVICE**	**ENG**
	ZDRAVOTNICKA SLUZBA	CZE
	MEDICINSK PLEJE	DAN
	EERSTEV HULP	DUT
	LÄÄKETIETEELLINEN HUOLTO	FIN
	SERVICE MÉDICAL	FRE
	MEDIZINISCHER SERVICE	GER
	AMBULATORIO	ITA
	MEDISINSK PLEIE	NOR
	CENTRO DE SAÚDE	POR
	ZDRAVOTNICKA SLUZBA	SLO
	AMBULATORIO	SPA
	MEDICINSK VÅRD	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9584	**POLICE SERVICE**	**ENG**
	POLICEJNI STANICE	CZE
	POLITISTATION	DAN
	POLITIEBUREAU	DUT
	POLIISIASEMA	FIN
	POLICE	FRE
	POLIZEIWACHE	GER
	FORZE DELLÓRDINE	ITA
	POLITISTASJON	NOR
	ESQUADRA DE POLICÍA	POR
	POLICAJNA STANICA	SLO
	COMISARÍA	SPA
	POLIS STATION	SWE
9585	**VETERINARIAN SERVICE**	**ENG**
	ZVEROLEKAR	CZE
	VETERINÆR	DAN
	DIERENARTS	DUT
	ELÄINLÄÄKÄRI	FIN
	VÉTÉRINAIRE	FRE
	TIERARZT	GER
	VETERINARIO	ITA
	VETERINÆR	NOR
	VETERINÁRIO	POR
	ZVEROLEKAR	SLO
	VETERINARIO	SPA
	VETERINÄR	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9586	**SPORTING & INSTRUCTIONAL CAMP**	**ENG**
	KEMP	CZE
	LEJR	DAN
	SPORTSCHOOL	DUT
	LEIRI	FIN
	COURS DE SPORT	FRE
	TRAININGSZENTRUM	GER
	CORSO DI SPORT	ITA
	LEIR	NOR
	INFRA-ESTRUTURA DE ENSINO DESPORTIVO	POR
	KEMP	SLO
	CURSOS DEPORTIVOS	SPA
	LÄGER	SWE
9589	**PUBLIC RESTROOM**	**ENG**
	OFFENTLIG TOILET	DAN
	OPENBAAR TOILET	DUT
	YLEINEN KÄYMÄLÄ	FIN
	TOILETTES PUBLIQUES	FRE
	ÖFFENTLICHE TOILETTE	GER
	BAGNI PUBBLICI	ITA
	OFFENTLIG TOALETT	NOR
	CASA DE BANHO PÚBLICA	POR
	WC PÚBLICO	SPA
	OFFENTLIG TOALETT	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9590	**RESIDENTIAL AREA/BUILDING**	**ENG**
	BYTNA ZONA	CZE
	LUKKET BOLIGKVARTER	DAN
	WOONERF/GEBOUW	DUT
	YKSITYINEN ASUINALUE	FIN
	ZONE/IMMEUBLE RÉSIDENTIEL(LE)	FRE
	WOHNGEBIET/GEBÄUDE	GER
	AREA RESIDENZIALE	ITA
	PRIVAT BOLIGOMRÅDE	NOR
	EDIFÍCIO/ÁREA RESIDENCIAL	POR
	OBYTNE PASMO	SLO
	EDIFICIO/AREA RESIDENCIAL	SPA
	PRIVAT BOSTADSOMRÅDE	SWE
9591	**CEMETERY**	**ENG**
	HRBITOV	CZE
	KIRKEGÅRD	DAN
	BEGRAAFPLAATS	DUT
	HAUTAUSMAA	FIN
	CIMETIÈRE	FRE
	FRIEDHOF	GER
	CIMITERO	ITA
	KIRKEGÅRD	NOR
	CEMITÉRIO	POR
	CINTORIN	SLO
	CEMENTERIO	SPA
	KYRKOGÅRD	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9592	**HIGHWAY EXIT**	**ENG**
	MOTORVEJS FRAKØRSEL	DAN
	SNELWEG AFRIT	DUT
	MOOTTORITIEN POISTUMISLIITTYMÄ	FIN
	SORTIE D'AUTOROUTE	FRE
	AUTOBAHNAUSFAHRT	GER
	USCITA AUTOSTRADALE	ITA
	MOTORVEIAVKJØRING	NOR
	SAÍDA DE AUTO-ESTRADA	POR
	SALIDA DE LA AUTOPISTA	SPA
	MOTORVÄGSAVFART	SWE
9593	**TRANSPORTATION SERVICE**	**ENG**
	TRANSPORT SERVICE	DAN
	TRANSPORTBEDRIJF	DUT
	KULJETUSPALVELU	FIN
	SERVICE DE TRANSPORT	FRE
	TRANSPORTSERVICE	GER
	SERVIZIO DI TRASPORTI	ITA
	TRANSPORTSERVICE	NOR
	SERVIÇO DE TRANSPORTE	POR
	SERVICIO DE TRANSPORTE	SPA
	TRANSPORTSERVICE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9707	**PUBLIC TRANSIT STOP**	**ENG**
	STOPPESTED	DAN
	HALTE	DUT
	JOUKKOLIIKENNEPYSÄKKI	FIN
	ARRÊT	FRE
	HALTESTELLE	GER
	FERMATA	ITA
	HOLDEPLASS	NOR
	STOP	POR
	PARADA	SPA
	HÅLLPLATS	SWE
9708	**PUBLIC TRANSIT ACCESS**	**ENG**
	INDGANG	DAN
	TOEGANGSWEG	DUT
	JOUKKOLIIKENTEEN SISÄÄNKÄYNTI	FIN
	POINT D'ACCÈS AU TRANSPORT PUBLIC	FRE
	ZUGANG HALTESTELLE	GER
	FERMATA	ITA
	ADKOMST	NOR
	PARAGEM	POR
	PARADA	SPA
	INGÅNG	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9709	**NEIGHBOURHOOD**	**ENG**
	BYDEL	DAN
	BUURT	DUT
	ASUINALUE	FIN
	QUARTIER	FRE
	STADTVIERTEL	GER
	QUARTIERE	ITA
	BYDEL	NOR
	BAIRRO	POR
	BARRIO	SPA
	KVARTER	SWE
9986	**HOME IMPROVEMENT & HARDWARE STORE**	**ENG**
	HOBBY MARKET	CZE
	BYGGEMARKED	DAN
	BOUWMARKT	DUT
	KODIN RAKENNUSTARVIKEKAUPPA	FIN
	MAGASIN DE BRICOLAGE	FRE
	BAUMARKT	GER
	NEGOZIO DI BRICOLAGE E FERRAMENTA	ITA
	BYGGVAREHUS	NOR
	LOJA DE MATERIAIS DE CONSTRUÇÃO	POR
	HOBBY MARKET	SLO
	COSAS DE CASA Y ELECTRÓNICA	SPA
	BYGGVARUHUS	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9987	**CONSUMER ELECTRONICS STORE**	**ENG**
	SPOTREBNI ELEKTRONIKA	CZE
	ELEKTRONIKVAREHUS	DAN
	ELECTRONICAWINKEL	DUT
	ELEKTRONIIKKALIIKE	FIN
	MAGASIN D'ÉLECTRONIQUE ET ÉLECTROMÉNAGER	FRE
	ELEKTROFACHMARKT	GER
	NEGOZIO DI ELETTRONICA	ITA
	ELEKTROVAREHUS	NOR
	LOJA DE ELECTRODOMÉSTICOS	POR
	SPOTREBNA ELEKTRONIKA	SLO
	TIENDA DE ELECTRÓNICA	SPA
	ELEKTRONIKVARUHUS	SWE
9988	**OFFICE SUPPLY & SERVICES STORE**	**ENG**
	KANCELARSKE POTREBY	CZE
	KONTOR- OG PAPIRHANDEL	DAN
	KANTOORBENODIGDHEDEN	DUT
	TOIMISTOARVIKELIIKE	FIN
	FOURNITURES ET SERVICES POUR ENTREPRISES	FRE
	BüROBEDARF	GER
	FORNITURE E SERVIZI PER UFFICIO	ITA
	KONTORREKVISITA	NOR
	CORREIO EXPRESSO	POR
	KANCELARSKE POTREBY	SLO
	OFICINA DE SERVICIOS A EMPRESAS	SPA
	PAPPERSHANDEL	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9989	**TAXI STAND**	**ENG**
	TAXA HOLDEPLADS	DAN
	TAXI STANDPLAATS	DUT
	TAKSIASEMA	FIN
	STATION DE TAXI	FRE
	TAXISTAND	GER
	FERMATA DEI TAXI	ITA
	DROSJEHOLDEPLASS	NOR
	PRAA DE TAXIS	POR
	PARADA DE TAXI	SPA
	TAXIHÅLLPLATS	SWE
9991	**INDUSTRIAL ZONE**	**ENG**
	PRUMYSLOVA ZONA	CZE
	INDUSTRIOMRÅDE	DAN
	INDUSTRIEGEBIED	DUT
	TEOLLISUUSALUE	FIN
	ZONE INDUSTRIELLE	FRE
	INDUSTRIEGEBIET	GER
	AREA INDUSTRIALE	ITA
	INDUSTRIOMRÅDE	NOR
	ZONA INDUSTRIAL	POR
	PRIEMYSELNA ZONA	SLO
	POLÍGONO INDUSTRIAL	SPA
	INDUSTRIOMRÅDE	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9992	**PLACE OF WORSHIP**	**ENG**
	BOHOSLUZEBNY OBJEKT	CZE
	HELLIGDOM	DAN
	GEBEDSHUIS	DUT
	PYHÄKKÖ	FIN
	LIEU DE CULTE	FRE
	ANDACHTSORT	GER
	LUOGO DI CULTO	ITA
	GUDSHUS	NOR
	LOCAIS DE CULTO	POR
	BOHOSLUZOBNY OBJEKT	SLO
	LUGAR DE CULTO	SPA
	HELGEDOM	SWE
9993	**EMBASSY**	**ENG**
	VELVYSLANECTVI	CZE
	AMBASSADE	DAN
	AMBASSADE	DUT
	SUURLÄHETYSTÖ	FIN
	AMBASSADE	FRE
	BOTSCHAFT	GER
	AMBASCIATA	ITA
	AMBASSAD	NOR
	EMBAIXADA	POR
	VELVYSLANECTVO	SLO
	EMBAJADA	SPA
	AMBASSAD	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9994	**COUNTY COUNCIL**	**ENG**
	OKRESNI URAD	CZE
	AMTSRÅD	DAN
	PROVINCIALE STATEN	DUT
	MAAKÄRÄJÄT	FIN
	CONSEIL GÉNÉRAL	FRE
	KREISVERWALTUNG	GER
	CONSIGLIO PROVINCIALE	ITA
	FYLKESKOMMUNE	NOR
	CONDADO	POR
	OKRESNY URAD	SLO
	AYUNTAMIENTO	SPA
	LANDSTING	SWE
9995	**BOOKSTORE**	**ENG**
	KNIHKUPECTVI	CZE
	BOGHANDEL	DAN
	BOEKWINKEL	DUT
	KIRJAKAUPPA	FIN
	LIBRAIRIE	FRE
	BUCHHANDLUNG	GER
	LIBRERIA	ITA
	BOKHANDEL	NOR
	LIVRARIA	POR
	KNIHKUPECTVO	SLO
	LIBRERÍA	SPA
	BOKHANDEL	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9996	**COFFEE SHOP**	**ENG**
	KAVARNA	CZE
	KAFFEBAR	DAN
	KOFFIEHUIS	DUT
	KAHVILA	FIN
	SOLON DE THÉ	FRE
	KAFFEEHAUS	GER
	CAFFETTERIA	ITA
	KAFFEBAR	NOR
	COFFEE-SHOP	POR
	KAVIAREN	SLO
	COFFEE-SHOP	SPA
	KAFFEBAR	SWE
9998	**HAMLET**	**ENG**
	VESNICE	CZE
	STEDNAVN	DAN
	GEHUCHT	DUT
	PAIKKA	FIN
	LIEU-DIT	FRE
	WEILER/WOHNPLATZ	GER
	LOCALITÀ	ITA
	STEDSANGIVELSE	NOR
	LUGAR	POR
	DEDINA	SLO
	LUGAR	SPA
	PLATSNAMN	SWE

Facility Types (Continued)

Facility Code	Description	Language code
9999	**BORDER CROSSING**	**ENG**
	HRANICNI PRECHOD	CZE
	GRÆNSEVAGT	DAN
	GRENSOVERGANG	DUT
	RAJAVARTIOLAITOS	FIN
	FRONTIÈRE	FRE
	GRENZÜBERGANG	GER
	VALICO DI FRONTIERA	ITA
	GRENSEVAKT	NOR
	FRONTEIRA	POR
	HRANICNY PRECHOD	SLO
	FRONTERA	SPA
	GRÄNSBEVAKNING	SWE

D.2.18 FEATURE - Feature Type

Feature Types

FEATURE Code	Description
500111	MARSH
500116	OCEAN
500412	RIVER
500413	INTERMITTENT RIVER
500414	CANAL/WATER CHANNEL
500421	LAKE
507116	BAY/HARBOUR
509998	BEACH
509999	ISLAND
900101	CITY
900103	PARK/MONUMENT (NATIONAL)
900107	NATIVE AMERICAN RESERVATION
900108	MILITARY BASE
900130	PARK (STATE)

Feature Types (Continued)

FEATURE Code	Description
900140	PARK IN WATER
900150	PARK (CITY/COUNTY)
900156	BUILT UP AREA
900158	PEDESTRIAN ZONE
900159	UNDEFINED TRAFFIC AREA
900170	COUNTY
900202	WOODLAND
907196	COUNTRY
908000	CARTOGRAPHIC COUNTRY BOUNDARY
908001	CARTOGRAPHIC STATE/PROVINCE BOUNDARY
908002[1]	NEIGHBOURHOOD
908003	COLONIA
909996	STATE
1700215	PARKING LOT
1700216	PARKING GARAGE
1800201	RAILROAD
1900403	AIRPORT
1907403	AIRCRAFT ROADS
2000123	GOLF COURSE
2000124	SHOPPING CENTRE
2000200	INDUSTRIAL COMPLEX
2000403	UNIVERSITY/COLLEGE
2000408	HOSPITAL
2000420	CEMETERY
2000457	SPORTS COMPLEX
2009000	BUSINESS/COMMERCE BUILDING/LANDMARK
2009001	CONVENTION/EXHIBITION BUILDING/LANDMARK
2009002	CULTURAL BUILDING/LANDMARK
2009003	EDUCATION BUILDING/LANDMARK
2009004	EMERGENCY SERVICE BUILDING/LANDMARK
2009005	GOVERNMENT BUILDING/LANDMARK
2009006	HISTORICAL BUILDING/LANDMARK

Feature Types (Continued)

FEATURE Code	Description
2009007	MEDICAL BUILDING/LANDMARK
2009008	PARK/LEISURE BUILDING/LANDMARK
2009009	RESIDENTIAL BUILDING/LANDMARK
2009010	RETAIL BUILDING/LANDMARK
2009011	SPORTS BUILDING/LANDMARK
2009012	TOURIST BUILDING/LANDMARK
2009013	TRANSPORTATION BUILDING/LANDMARK
2500003	LANDMARK POINT
9992000	RDS-TMC
9997004	CONGESTION ZONE
9998002	BEGINNING OF CHAIN
9999999	ROAD NETWORK

1. This Feature Code is used in conjunction with Discover Cities.

D.2.19 FUNCLASS - Functional Classification

Code	Description
(space)	NOT APPLICABLE
1	LEVEL 1
2	LEVEL 2
3	LEVEL 3
4	LEVEL 4
5	LEVEL 5

D.2.20 HSENBFMT - House Number Format

Code	Description
A	HOUSE NUMBER IS AFTER THE STREET NAME
B	HOUSE NUMBER IS BEFORE THE STREET NAME

D.2.21 LANECAT - Lane Category

Code	Description
(space)	NOT APPLICABLE
1	ONE LANE
2	TWO OR THREE LANES
3	FOUR OR MORE LANES

D.2.22 LANESIDE - Lane Side

Code	Description
(space)	NO LANES
L	LEFTMOST LANES
R	RIGHTMOST LANES

D.2.23 LANGCODE - Language Code

Code	Description
ALB	Albanian
ARA	Arabic
BAQ	Basque
BEL	Belarusian
BEX	Belarusian Transliterated
BOS	Bosnian
BOX	Bosnian Transliterated
BUL	Bulgarian
BUT	Bulgarian Transcribed
BUX	Bulgarian Transliterated
CAT	Catalan
CHI	Chinese (Modern)
CHT	Chinese (Traditional)
SCR	Croatian
SRX	Croatian Transliterated
CZE	Czech
CZX	Czech Transliterated

Code	Description
DAN	Danish
DUT	Dutch
ENG	English
EST	Estonian
ESX	Estonian Transliterated
FIN	Finnish
FRE	French
GLG	Galician
GER	German
GRT	Modern Greek
GRE	Greek
GRT	Greek Transcribed
GRX	Greek Transliterated
HUN	Hungarian
HUX	Hungarian Transliterated
IND	Bahasa Indonesia
ITA	Italian
LAV	Latvian
LAX	Latvian Transliterated
LIT	Lithuanian
LIX	Lithuanian Transliterated
MAC	Macedonian
MAT	Macedonian Transcribed
MAY	Malaysian
MOL	Moldovan
MOX	Moldovan Transliterated
MNE	Montenegrin
MNX	Montenegrin Transliterated
NOR	Norwegian
POL	Polish
POX	Polish Transliterated
POR	Portuguese
PYN	Pinyin
RMX	Romanian Transliterated
RUM	Romanian
RUS	Russian
RST	Russian Transcribed

Code	Description
RUX	Russian Transliterated
SRB	Serbian
SCT	Serbian Transcribed
SCX	Serbian Transliterated
SLO	Slovak
SLX	Slovak Transliterated
SLV	Slovenian
SIX	Slovenian Transliterated
SPA	Spanish
SWE	Swedish
THA	Thai
TKT	Turkish Transcribed
TUR	Turkish
TUX	Turkish Transliterated
UKR	Ukrainian
UKX	Ukrainian Transliterated
WEL	Welsh

D.2.24 LHREASON – Long Haul Reason

Code	Description
(space)	FULL INCLUSION
C	CARTOGRAPHY ONLY

D.2.25 LINKEND – Link End

Code	Description
(space)	CONDITION APPLIES TO WHOLE LINK
N	CONDITION APPLIES TO NON-REF END OF LINK
R	CONDITION APPLIES TO REF END OF LINK

D.2.26 POIASSOC – POI Association Type

Code	Description
L	LOGICAL RELATION
P	PHYSICAL RELATION

D.2.27 POISIDE – POI Side

Code	Description
L	LEFT SIDE
N	NOT APPLICABLE
R	RIGHT SIDE

D.2.28 PONAMTYP – POI Name Type

Code	Description
B	BASE NAME
E	EXONYM
S	SYNONYM
U	UNNAMED

D.2.29 PREFSUFF – Prefix / Suffix Street Direction

Code	Description	Language Code
(space)	PREFIX/SUFFIX = SPACES	NOT APPLICABLE
E	EAST	ENG
E	EST	FRE
N	NORTH	ENG
N	NORD	FRE
NE	NORTHEAST	ENG
NE	NORD-EST	FRE

Code	Description	Language Code
NO	NORD-OUEST	FRE
NW	NORTHWEST	ENG
O	OUEST	FRE
S	SOUTH	ENG
S	SUD	FRE
SE	SOUTHEAST	ENG
SE	SUD-EST	FRE
SO	SUD-OUEST	FRE
SW	SOUTHWEST	ENG
W	WEST	ENG

D.2.30 RTETYPE - Route Type

Code	Description
(space)	NOT APPLICABLE
1	LEVEL 1 ROAD
2	LEVEL 2 ROAD
3	LEVEL 3 ROAD
4	LEVEL 4 ROAD
5	LEVEL 5 ROAD
6	LEVEL 6 ROAD

D.2.31 SIDEINCL - Side Inclusion

Code	Description
(space)	NOT APPLICABLE
L	LEFT SIDE
R	RIGHT SIDE

D.2.32 SPDUNIT - Speed Limit Unit

Code	Description
KPH	KILOMETERS PER HOUR
MPH	MILES PER HOUR

D.2.33 SPEEDCAT - Speed Category

Code	Description
(space)	NOT APPLICABLE
1	> 130 KPH > 80 MPH
2	101-130 KPH 65-80 MPH
3	91-100 KPH 55-64 MPH
4	71-90 KPH 41-54 MPH
5	51-70 KPH 31-40 MPH
6	31-50 KPH 21-30 MPH
7	11-30 KPH 6-20 MPH
8	< 11 KPH < 6 MPH

D.2.34 STRTYPE - Street Type

Only North American English Street Types are described in the table below, since a street type abbreviation is published in the Street Type field of the SIF+ Link Usage Record. The full spelling is given for each abbreviation. For all languages other than English, the full spelling for the street type is published directly in the Street Type field of the SIF+ Link Usage Feature Record.

Street Types

STRTYPE Code	Description
ABEY	ABBEY
ACC	ACCESS
ACRS	ACRES
ALCV	ALCOVE
ALY	ALLEY
ANX	ANNEX

Street Types (Continued)

STRTYPE Code	Description
APPR	APPROACH
ARC	ARCADE
AVE	AVENUE
BAY	BAY
BCH	BEACH
BDY	BOUNDARY
BELT	BELTWAY
BG	BURGS
BLF	BLUFF
BLVD	BOULEVARD
BND	BEND
BR	BRANCH
BRG	BRIDGE
BRK	BROOK
BTM	BOTTOM
BYP	BYPASS
BYPS	BY-PASS
BYU	BAYOU
BYWY	BYWAY
C	CALLE
CHAS	CHASE
CHRT	CHART
CIR	CIRCLE
CIRT	CIRCUIT
CLB	CLUB
CLFS	CLIFFS
CLOS	CLOSE
CNRS	CORNERS
CNTR	CENTRE
COM	COMMON
CONC	CONCESSION
COR	CORNER

Street Types (Continued)

STRTYPE Code	Description
CORS	CORS
CP	CAMP
CPE	CAPE
CRES	CRESCENT
CRFT	CROFT
CRK	CREEK
CRSE	COURSE
CRVE	CURVE
CSWY	CAUSEWAY
CT	COURT
CTR	CENTER
CTS	COURTS
CV	COVE
CYN	CANYON
DELL	DELL
DL	DALE
DM	DAM
DR	DRIVE
DRWY	DRIVEWAY
DV	DIVIDE
DVSN	DIVERSION
DWNS	DOWNS
END	END
EST	ESTATES
EXP	EXPRESS
EXPY	EXPRESSWAY
EXT	EXTENSION
FARM	FARM
FL	FALL
FLD	FIELD
FLDS	FIELDS
FLS	FALLS

Street Types (Continued)

STRTYPE Code	Description
FLT	FLATS
FRD	FORD
FRG	FORGE
FRK	FORK
FRNT	FRONT
FRST	FOREST
FRY	FERRY
FT	FORT
FWY	FREEWAY
GATE	GATE
GDNS	GARDENS
GLAD	GLADE
GLN	GLEN
GRDS	GROUNDS
GRN	GREEN
GRV	GROVE
GTWY	GATEWAY
HBR	HARBOR
HILN	HIGHLANDS
HL	HILL
HLS	HILLS
HOLW	HOLLOW
HRBR	HARBOUR
HTS	HEIGHTS
HVN	HAVEN
HWY	HIGHWAY
INLT	INLET
IS	ISLAND
ISLE	ISLE
ISS	ISLANDS
JCT	JUNCTION
KEEP	KEEP

Street Types (Continued)

STRTYPE Code	Description
KNLS	KNOLLS
KNOL	KNOLL
KY	KEY
LCKS	LOCK
LDG	LODGE
LF	LOAF
LGT	LIGHT
LINE	LINE
LINK	LINK
LK	LAKE
LKOT	LOOKOUT
LKS	LAKES
LMTS	LIMITS
LN	LANE
LNDG	LANDING
LOOP	LOOP
MALL	MALL
MAZE	MAZE
MDOW	MEADOW
MDWS	MEADOWS
MEWS	MEWS
ML	MILL
MLS	MILLS
MNR	MANOR
MOOR	MOOR
MSN	MISSION
MT	MOUNT
MTN	MOUNTAIN
MTS	MNTNS
MTWY	MOTORWAY
NCK	NECK
ORCH	ORCHARD

Street Types (Continued)

STRTYPE Code	Description
OTLK	OUTLOOK
OVL	OVAL
OVPS	OVERPASS
PARD	PARADE
PARK	PARK
PASS	PASS
PATH	PATH
PIKE	PIKE
PKY	PARKWAY
PL	PLACE
PLN	PLAIN
PLNS	PLAINS
PLZ	PLAZA
PNES	PINES
PR	PRAIRIE
PROM	PROMENADE
PRT	PORT
PSGE	PASSAGE
PT	POINT
PTWY	PATHWAY
PVT	PRIVATE
QUAY	QUAY
RADL	RADIAL
RAMP	RAMP
RD	ROAD
RDG	RIDGE
RISE	RISE
RIV	RIVER
RNCH	RANCH
RNGE	RANGE
ROW	ROW
RPDS	RAPID

Street Types (Continued)

STRTYPE Code	Description
RST	REST
RUN	RUN
SDRD	SIDEROAD
SHL	SHOAL
SHLS	SHOALS
SHR	SHORE
SHRS	SHORES
SKWY	SKYWAY
SMT	SUMMIT
SPG	SPRING
SPGS	SPRINGS
SPUR	SPUR
SQ	SQUARE
ST	STREET
STA	STATION
STRM	STREAM
SUBD	SUBDIVISION
TABT	TURNABOUT
TER	TERRACE
TFWY	TRAFFICWAY
THKT	THICKET
THWY	THROUGHWAY
TLIN	TOWNLINE
TLPK	TRAILER PARK
TOLL	TOLL
TPKE	TURNPIKE
TRAK	TRACK
TRCE	TRACE
TRL	TRAIL
TRLR	TRAILER
TUNL	TUNNEL
TURN	TURN

Street Types (Continued)

STRTYPE Code	Description
TWRS	TOWERS
UN	UNION
UNP	UNDERPASS
VALE	VALE
VIA	VIA
VIAD	VIADUCT
VIS	VISTA
VL	VILLE
VLG	VILLAGE
VLY	VALLEY
VW	VIEW
WALK	WALK
WALL	WALL
WAY	WAY
WHRF	WHARF
WLS	WELL
WOOD	WOOD
WYND	WYND
XING	CROSSING

D.2.35 TEXTTYPE - Sign Text Type

Code	Description
B	BRANCH TO A STREET
T	TOWARDS AN EVENTUAL DESTINATION LINK

D.2.36 UOM – Unit of Measure

Code	Description
E	ENGLISH
M	METRIC

D.2.37 ZNNAMTYP – Zone Name Type

Code	Description
B	BASE NAME
E	EXONYM
S	SYNONYM

D.2.38 ZONETYPE – Zone Type

Code	Description
KA	KNOWN AS – REPLACES ADMIN
KD	KNOWN AS – DOES NOT REPLACE ADMIN
PA	POSTAL AREA
NB[1]	NEIGHBOURHOOD

1. This Zone Type is used in conjunction with Discover Cities.

D.3 Compound Reference Classes

D.3.1 CDMMOD1 – Condition / Driving Manoeuvre Modifier 1

CDMMOD1 Type	Modifier	Modifier Description
4 = Gate	1	Gate Type = Key Access
	2	Gate Type = Permission Required
	3	Gate Type = Emergency Gates
5 = Direction of Travel	1	Direction of travel = From Reference Node
	2	Direction of travel = To Reference node
	3	Direction of travel = Both Directions
7 = Restricted Driving Manoeuvre	1	RDM Type = Legal
	2	RDM Type = Physical
	3	RDM Type = Logical
8 = Access Restriction	0	Approximate Seasonal Closure = No
	1	Approximate Seasonal Closure = Yes
10 = Special Speed Situation	1	Special Speed Type = Advisory
	2	Special Speed Type = Dependent
	3	Special Speed Type = Speed Bumps Present
11 = Variable Speed Sign	1	Variable Sign Location = Left
	2	Variable Sign Location = Right
	3	Variable Sign Location = Overhead
16 = Traffic Signal/Sign Location	1	Signal/Sign Location = Right
	2	Signal/Sign Location = Left
	3	Signal/Sign Location = Overhead

D.3.2 CDMMOD2 – Condition / Driving Manoeuvre Modifier 2

CDMMOD2 Type	Modifier	Modifier Description
7 = Restricted Driving Manoeuvre	1	Time Override = Dawn to Dusk
	2	Time Override = Dusk to Dawn
10 = Special Speed Situation	Numeric	km or miles per hour

D.3.3 CDMMOD3 - Condition / Driving Manoeuvre Modifier 3

CDMMOD3 Type	Modifier	Modifier Description
10 = Special Speed Situation	1	Dependent Speed Type = School
	2	Dependent Speed Type = Rain
	3	Dependent Speed Type = Snow
	4	Dependent Speed Type = Time Dependent
	5	Dependent Speed Type = Approximate Seasonal Time
	6	Dependent Speed Type = Lane Dependent

D.3.4 CDMMOD4 - Condition / Driving Manoeuvre Modifier 4

CDMMOD4 Type	Modifier	Modifier Description
10 = Special Speed Situation	1	Time Override = Dawn to Dusk
	2	Time Override = Dusk to Dawn

D.3.5 CDMMOD10 - Condition / Driving Manoeuvre Modifier 10

CDMMOD10 Type	Modifier	Modifier Description
8 = Access Restriction	Numeric	Minimum Number of Passengers (used in conjunction with HOV vehicles)

D.3.6 CDMMOD11 - Condition / Driving Manoeuvre Modifier 11

CDMMOD11 Type	Modifier	Modifier Description
8 = Access Restriction	0	Motorcycles Considered Carpool = No
	1	Motorcycles Considered Carpool = Yes

D.3.7 CDMMOD12 - Condition / Driving Manoeuvre Modifier 12

CDMMOD12 Type	Modifier	Modifier Description
8 = Access Restriction	0	Hybrids Considered Carpool = No
	1	Hybrids Considered Carpool = Yes

D.3.8 CDMMOD22 - Condition / Driving Manoeuvre Modifier 22

CDMMOD22 Type	Modifier	Modifier Description
17 = Traffic Sign	1	Start of No Overtaking
	2	End of No Overtaking
	3	Protected Overtaking - extra lane
	4	Protected Overtaking - extra lane right side
	5	Protected Overtaking - extra lane left side
	6	Lane Merge Right
	7	Lane Merge Left
	8	Lane Merge Center
	9	Railway Crossing Protected
	10	Railway Crossing Unprotected
	11	Road Narrows
	12	Sharp Curve Left
	13	Sharp Curve Right
	14	Winding Road starting Left
	15	Winding Road starting Right
	16	Start of No Overtaking Trucks
	17	End of No Overtaking Trucks
	18	Steep Hill Upwards
	19	Steep Hill Downwards
	20	Stop Sign
	21	Lateral Wind
	22	End of all Restrictions

D.3.9 CDMMOD23 - Condition / Driving Manoeuvre Modifier 23

CDMMOD23 Type	Modifier	Modifier Description
17 = Traffic Sign	Text	Supplemental Sign Duration

D.3.10 CDMMOD24 - Condition / Driving Manoeuvre Modifier 24

CDMMOD24 Type	Modifier	Modifier Description
17 = Traffic Sign	Text	Supplemental Sign Pre-Warning

D.3.11 CDMMOD25 - Condition / Driving Manoeuvre Modifier 25

CDMMOD25 Type	Modifier	Modifier Description
17 = Traffic Sign	1	Truck
	2	Truck over 3.5 tons, trailers or semi-trailers
	3	Bus
	4	Passenger Vehicle with trailer
	5	Motor Home
	6	Motorcycle

D.3.12 CDMMOD26 - Condition / Driving Manoeuvre Modifier 26

CDMMOD26 Type	Modifier	Modifier Description
17 = Traffic Sign	Text	Supplemental Sign Validity Time

D.3.13 CDMMOD27 - Condition / Driving Manoeuvre Modifier 27

CDMMOD27 Type	Modifier	Modifier Description
18 = Railway Crossing	1	Railway Crossing Type = 1 (Protected)
	2	Railway Crossing Type = 2 (unprotected)

D.3.14 CDMMOD28 - Condition / Driving Manoeuvre Modifier 28

CDMMOD28 Type	Modifier	Modifier Description
17 = Traffic Sign	1	Regulatory Sign
	2	Informative Sign
	3	Warning Sign

D.3.15 CDMMOD35 - Condition / Driving Manoeuvre Modifier 35

CDMMOD35 Type	Modifier	Modifier Description
35 = Evacuation Event Type	1	Hurricane

Note: Additional Values may be introduced in the future.

D.3.16 CDMMOD36 - Condition / Driving Manoeuvre Modifier 36

CDMMOD36Type	Modifier	Modifier Description
36 = Evacuation Travel Flow	1	From
	2	To
	3	Both
	4	Closed

D.3.17 CDMMOD37 - Condition / Driving Manoeuvre Modifier 37

CDMMOD28 Type	Modifier	Modifier Description
37 = Event Code	1	Alligator Alley Northbound
	2	Alligator Alley Southbound

D.3.18 DTMDATE – Date / Time Modifiers

Date/Time Modifiers

DTMDATE Type	Modifier	Modifier Description
A = Date Range	YYYYMMDD Value	Date in the form YYYYMMDD where YYYY is the year MM is the month DD is the day A Date Range is specified by two values in the above format (i.e., the Reference Date and End Date fields of the Link CDM Date/Time Modifier Record).
C = Day of Month	DDDD Value	Date in the form DDDD0000 where DDDD is a value in the range 0001-0031 Example 1: Ref Date = 00150000 End Date = 00000000 The 15th day of every month. Example 2: Ref Date = 00010000 End Date = 00150000 Days 1-15 of every month.
D = Day of Week of Month	DDDDWWWW Value	Date in the form DDDDWWWW where DDDD is a value in the range 0001-0007 WWWW is a value in the range 0001-0005 Example 1: Ref Date = 00010001 End Date = 00000000 Sunday of the 1st week of every month. Example 2: Ref Date = 00020001 End Date = 00060002 Monday-Friday of weeks 1-2 of every month.
E = Day of Week of Year	DDDDWWWW Value	Date in the form DDDDWWWW where DDDD is a value in the range 0001-0007 WWWW is a value in the range 0001-0052 Example 1: Ref Date = 00020052 End Date = 00000000 Monday of the 52nd week of every year. Example 2: Ref Date = 00050027 End Date = 00060000 Thursday-Friday of week 27 of every year.

Date/Time Modifiers (Continued)

DTMDATE Type	Modifier	Modifier Description
F = Week of Month	WWWW Value	Date in the form WWWW0000 where WWWW is a value in the range 0001-0005 Example 1: Ref Date = 00010000 End Date = 00000000 The 1st week of every month. Example 2: Ref Date = 00020000 End Date = 00040000 Weeks 2-4 of every month.
H = Month of Year	MMMM Value	Date in the form MMMM0000 where MMMM is a value in the range 0001-0012 Example 1: Ref Date = 00030000 End Date = 00000000 The 3rd month of every year. Example 2: Ref Date = 00060000 End Date = 00100000 Months 6-10 of every year.
I = Day of Month of Year	DDDDMMMM Value	Date in the form DDDDMMMM where DDDD is a value in the range 0001-0031 MMMM is a value in the range 0001-0012 Example 1: Ref Date = 00250012 End Date = 00000000 The 25th day of the 12th month of every year. Example 2: Ref Date = 00160003 End Date = 00310006 Days 16-31 of months 3-6 of every year.
1 = Day Mask	Seven Boolean Value	Date in the form XXXXXXX where each X is a Boolean flag starting with Sunday Example: NYYYYYN = Monday thru Friday

D.3.19 POIATTR – POI Attributes

POi Attributes

POIATTR Type	Modifier	Modifier Description
1 = Food Type	1	AMERICAN FOOD
	2	CALIFORNIAN FOOD
	3	CHINESE FOOD
	4	CONTINENTAL FOOD
	5	FRENCH FOOD
	6	GERMAN FOOD

POi Attributes (Continued)

POIATTR Type	Modifier	Modifier Description
	7	GREEK FOOD
	8	INDIAN FOOD
	9	ITALIAN FOOD
	10	JAPANESE FOOD
	11	MEXICAN FOOD
	12	OTHER
	13	SEAFOOD
	14	THAI FOOD
	15	VEGETARIAN FOOD
	16	VIETNAMESE FOOD
	18	AUSTRIAN FOOD
	19	BARBECUE/SOUTHERN
	20	BELGIAN FOOD
	21	BISTRO
	22	BREWPUB
	23	BRITISH ISLES FOOD
	24	CAJUN/CARIBBEAN FOOD
	25	DUTCH FOOD
	26	EAST EUROPEAN FOOD
	27	FAST FOOD
	28	GRILL
	29	HAWAIIAN/POLYNESIAN FOOD
	30	HUNGARIAN FOOD
	31	INDONESIAN/MALAYSIAN FOOD
	32	JEWISH/KOSHER FOOD
	33	KOREAN FOOD
	34	LATIN AMERICAN FOOD
	35	MALTESE FOOD
	36	MIDDLE EASTERN FOOD
	37	FILIPINO FOOD
	38	POLISH FOOD
	39	PORTUGUESE FOOD

POi Attributes (Continued)

POIATTR Type	Modifier	Modifier Description
	40	RUSSIAN FOOD
	41	SANDWICH
	42	SCANDINAVIAN FOOD
	43	SOUTH AMERICAN FOOD
	44	SOUTHEAST ASIAN FOOD
	45	SOUTHWESTERN FOOD
	46	SURINAMESE FOOD
	47	SPANISH FOOD
	48	STEAK HOUSE
	49	SWISS FOOD
	50	TURKISH FOOD
	51	AFRICAN FOOD
	52	CANADIAN FOOD
	53	INTERNATIONAL FOOD
	54	BOHEMIAN FOOD
	55	BALKAN FOOD
	56	FINNISH FOOD
	57	AUSTRALIAN FOOD
Note: Values 59 thru 72 are published only in India.	58	PIZZA
	59	PUNJABI
	60	RAJASTHANI
	61	MOGHLAI
	62	BENGALI
	63	GOAN
	64	JAIN
	65	KONKANI
	66	GUJARATI
	67	PARSI
	68	SOUTH INDIAN
	69	MAHARASHTRIAN
	70	NORTH INDIAN
	71	MALVANI

POi Attributes (Continued)

POIATTR Type	Modifier	Modifier Description
	72	HYDERABADI
3 = Vanity City	Area ID Value	Area ID index to Area Reference Record for the Vanity City
4 = Population	Numeric Value	Population
5 = Capital City	1	ADMINISTRATIVE LEVEL 1
	2	ADMINISTRATIVE LEVEL 2
	3	ADMINISTRATIVE LEVEL 3
	4	ADMINISTRATIVE LEVEL 4
	5	ADMINISTRATIVE LEVEL 5
	6	ADMINISTRATIVE LEVEL 6
	7	ADMINISTRATIVE LEVEL 7
11 = Diesel	0	Diesel not sold
	1	Diesel sold
15 = 24 Hour Indicator	0	Not Open 24 Hours
	1	Open 24 Hours
16 = Building Type	1	Mosque
	2	Church
	3	Temple
	4	Synagogue
18 = Rest Area Type	1	Complete Rest Area
	2	Parking and Rest Room only
	3	Parking only
	4	Motorway Service Area
22 = Airport Type	1	Terminal
25 = Transit Access Level[1]	1	Above Street Level
	2	Below Street Level
	3	At Street Level
26 = Transit Access Type[1]	1	Entrance only
	2	Exit only
	3	Entrance and Exit only

POi Attributes (Continued)

POIATTR Type	Modifier	Modifier Description
27 = Transit Access Method[1]	0	Not Applicable
	1	Stairs
	2	Escalator
	3	Stairs and Escalator
	4	Elevator
	5	Stairs and Elevator
	6	Escalator and Elevator
	7	Stairs, Escalator, and Elevator
10001 = Display Location X	Signed Numeric	The longitude coordinate of a POI's location.
10002 = Display Location Y	Signed Numeric	The latitude coordinate of a POI's location.

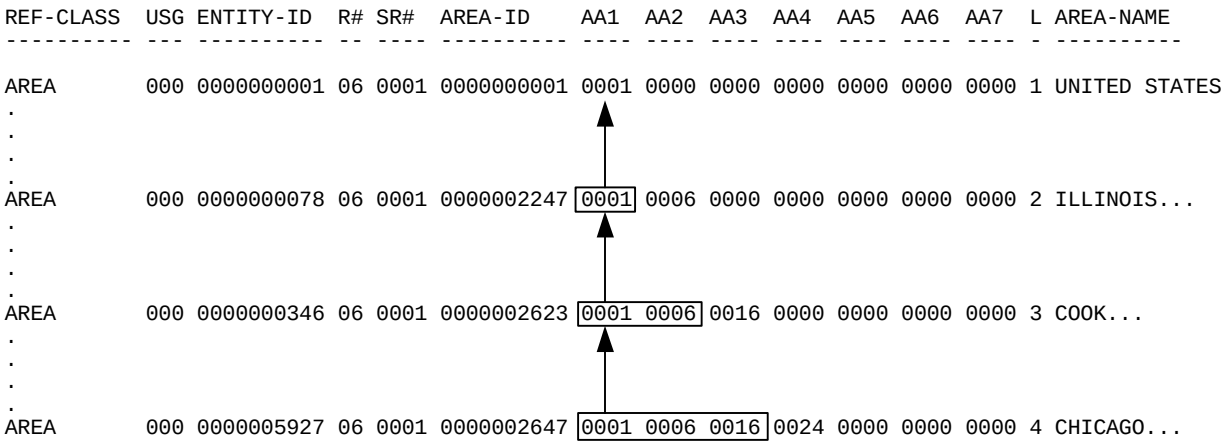
1. These attributes are used in conjunction with Discover Cities. See *Section 45.12, Discover Cities* for details.

Appendix E
Area Record Access

(This page intentionally left blank)

E.1 Area Record Access

Area Code 1 through ***Area Code 7*** represent the administrative area hierarchy. These fields must be used to access the associated higher level Area Records. The illustration below exemplifies accessing the County (level 3), State (level 2) and Country (level 1) Area Main Records from a City (level 4) Area Main Record.



(This page intentionally left blank)

Appendix F
Listing of POIs by Feature Code

(This page intentionally left blank)

F.0.1 POI Inclusion per Continent

Table F-1 lists the POIs included per continent. Inclusions specific to certain countries are also indicated.

POI category	Facility Code	Global	North-America	Europe	Middle East	Africa	Select Countries
Airport	4581	X					
Amusement Park	7996	X					
ATM	3578	X					
Auto Dealership - Used Cars	5512			X			
Automobile Club	8699		X	X[1]		X	
Automobile Dealership	5511	X	X	X		X	
Auto Service & Maintenance	7538		X	X			
Bank	6000	X					
Bar or Pub	9532			X[1]			
Book Store	9995		X	X[1]			
Border Crossing	9999	X					
Bowling Centre	7933			X			
Bus Station	4170	X					
Business Facility	5000	X					
Campground	9517		X				New Zealand
Casino	7985	X					
Cemetery	9591			X	X	X	New Zealand
Cinema	7832	X					
City Hall	9121	X					
Civic/Community Centre	7994		X	X		X	
Clothing Store	9537		X	X	X	X	New Zealand
Coffee Shop	9996		X	X[1]			
Commuter Rail Station	4100	X					
Consumer Electronics Store	9987		X	X	X	X	New Zealand
Convention/Exhibition Centre	7990	X					

POI category	Facility Code	Global	North-America	Europe	Middle East	Africa	Select Countries
County Council	9994			X[1]		X	
Court House	9211		X	X[1]		X	
Convenience Store	9535		X	X	X	X	New Zealand
Department Store	9545		X	X	X	X	New Zealand
Embassy	9993			X		X	
Ferry Terminal	4482	X					
Golf Course	7992	X					
Government Office	9525						Jordan
Grocery Store	5400		X	X[1]	X	X	
Guest House	7013			X[1]			
Hamlet	9998		X	X		X	India
Higher Education	8200		X	X		X	
Highway Exit	9592						U.S.
Historical Monument	5999	X					
Home Improvement & Hardware Store	9986		X	X	X	X	New Zealand
Home Specialty Store	9560		X	X	X	X	New Zealand
Hospital	8060	X					
Hotel	7011	X					
Ice Skating Rink	7998			X			
Industrial Zone	9991			X	X	X	New Zealand
Library	8231		X	X	X	X	
Marina	4493		X	X		X	
Medical Service	9583			X			
Motorcycle Dealership	5571	X					
Museum	8410	X					
Named Place	4444	X					
Neighbourhood[2]	9709		X	X			
Nightlife	5813	X					

POI category	Facility Code	Global	North-America	Europe	Middle East	Africa	Select Countries
Office Supply & Services Store	9988		X	X	X	X	New Zealand
Park/Recreation Area	7947		X	X		X	
Park & Ride	7522	X					
Parking Garage/House	7521	X					
Parking Lot	7520		X	X		X	
Performing Arts	7929		X	X		X	
Petrol/Gasoline Station	5540	X					
Pharmacy	9565		X	X[1]		X	
Place of Worship	9992			X[1]	X	X	India, New Zealand
Police Station	9221		X	X[1]		X	
Post Office	9530	X					
Public Restroom	9589						Indonesia
Public Sports Airport	4580			X			
Public Transit Access[2]	9708		X	X			
Public Transit Stop[2]	9707		X	X			
Rental Car Agency	7510	X					
Residential Area/Building	9590						X[3]
Rest Area	7897	X					
Restaurant	5800	X					
School	8211		X	X[1]		X	
Shopping	6512	X					
Ski Resort	7012		X	X			
Specialty Store	9567		X	X	X	X	New Zealand
Sporting Goods Store	9568		X	X	X	X	New Zealand
Sports Centre	7997			X			
Sports Complex	7940	X					
Taxi Stand[2]	9989		X	X			
Tourist Attraction	7999	X					
Tourist Information	7389	X	X	X		X	

POI category	Facility Code	Global	North-America	Europe	Middle East	Africa	Select Countries
Train Station	4013	X					
Winery	2084	X					

1. Published in Europe only when covered by third party data supplier.
2. Not published in a regular SIF+ extract but only in conjunction with Discover Cities. See *Section 45.12, Discover Cities*.
3. Included in Indian, Singaporean, Hong Kong-Chinese, Macau-Chinese data only.

Table F-1

F.1 Alphabetical Listing of POIs

Feature Code	Feature Name
4581	***Airport***
7996	***Amusement Park***
3578	***ATM***
7538	***Auto Service & Maintenance***
8699	***Automobile Club***
5511	***Automobile Dealership***
5512	***Auto Dealership-Used Cars***
6000	***Bank***
9532	***Bar or Pub***
9995	***Book Store***
9999	***Border Crossing***
7933	***Bowling Centre***
4170	***Bus Station***
5000	***Business Facility***
9517	***Campground***
7985	***Casino***
9591	***Cemetery***
7832	***Cinema***
9121	***City Hall***
9537	***Clothing Store***
9996	***Coffee Shop***
7994	***Civic/Community Centre***
4100	***Commuter Rail Station***
9987	***Consumer Electronics Store***
9535	***Convenience Store***
7990	***Convention/Exhibition Centre***
9994	***County Council***
9211	***Court House***
9545	***Department Store***
9993	***Embassy***

Feature Code	Feature Name
4482	***Ferry Terminal***
7992	***Golf Course***
9525	***Government Office***
5400	***Grocery Store***
7013	***Guest House***
9998	***Hamlet***
8200	***Higher Education***
9592	***Highway Exit***
5999	***Historical Monument***
9986	***Home Improvement & Hardware Store***
9560	***Home Specialty Store***
8060	***Hospital***
7011	***Hotel***
7998	***Ice Skating Rink***
9991	***Industrial Zone***
8231	***Library***
4493	***Marina***
9583	***Medical Service***
5571	***Motorcycle Dealership***
8410	***Museum***
4444	***Named Place***
9709	***Neighbourhood***[1]
5813	***Nightlife***
9988	***Office Supply & Services Store***
7522	***Park & Ride***
7947	***Park/Recreation Area***
7521	***Parking Garage/House***
7520	***Parking Lot***
7929	***Performing Arts***
5540	***Petrol/Gasoline Station***
9565	***Pharmacy***
9992	***Place of Worship***
9221	***Police Station***

Feature Code	Feature Name
9530	***Post Office***
9989[1]	***Taxi Stand***
9708[1]	***Public Transit Access***
9707[1]	***Public Transit Stop***
9589	***Public Restroom***
4580	***Public Sports Airport***
7510	***Rental Car Agency***
9590	***Residential Area/Building***
7897	***Rest Area***
5800	***Restaurant***
8211	***School***
6512	***Shopping***
7012	***Ski Resort***
9567	***Specialty Store***
9568	***Sporting Goods Store***
7997	***Sports Centre***
7940	***Sports Complex***
7999	***Tourist Attraction***
7389	***Tourist Information***
4013	***Train Station***
2084	***Winery***

1. Not published in a regular SIF+ extract but only in conjunction with Discover Cities. See *Section 45.12, Discover Cities* for more information.

Table F-2

(This page intentionally left blank)

Appendix G
Restricted Driving Manoeuvre

(This page intentionally left blank)

G.1 Restricted Driving Manoeuvre

Definition A ***Restricted Driving Manoeuvre*** (RDM) describes a manoeuvre from one link to another that is prohibited.

Condition Type 7

Length 5

Condition Modifier 1
1 - Legal
2 - Physical
3 - Logical

Condition Modifier 2
1 - Time Override = Dawn to Dusk
2 - Time Override = Dusk to Dawn

Related Attribute ***End of Link***

Usage The ***Restricted Driving Manoeuvre*** condition is used to prevent a vehicle from making a prohibited manoeuvre, resulting in more accurate route calculation.

Specification

- ***Restricted Driving Manoeuvres*** are applied to two or more contiguous links that uniquely define the restricted manoeuvre.
- Where the links are reported is significant. For example, if link A is reported in the Record Key as the ***Link ID*** and link B is reported in the ***Manoeuvre Link ID 1*** field, the manoeuvre is restricted from link A to link B.
- In the case of a restriction involving more than 2 links, then additional Manoeuvre Link IDs are contained in Link CDM Manoeuvre Link Records. The order of the links is still significant. An order of A, B, C, D, E would mean that the car cannot traverse the links in that order to get from A to E. Note that this does not imply that traversing subsets of these links is prohibited (for example travelling from C to D to E may be legal even if going from A to E is illegal).
- The number of links which can be involved in a ***Restricted Driving Manoeuvre*** is limited to 500, but it is minimised to the point where the restriction is uniquely identified.
- "No U-Turns" at intersections of single digitised links are represented as in *Figure G-1*. See also ***End of Link*** attribute.

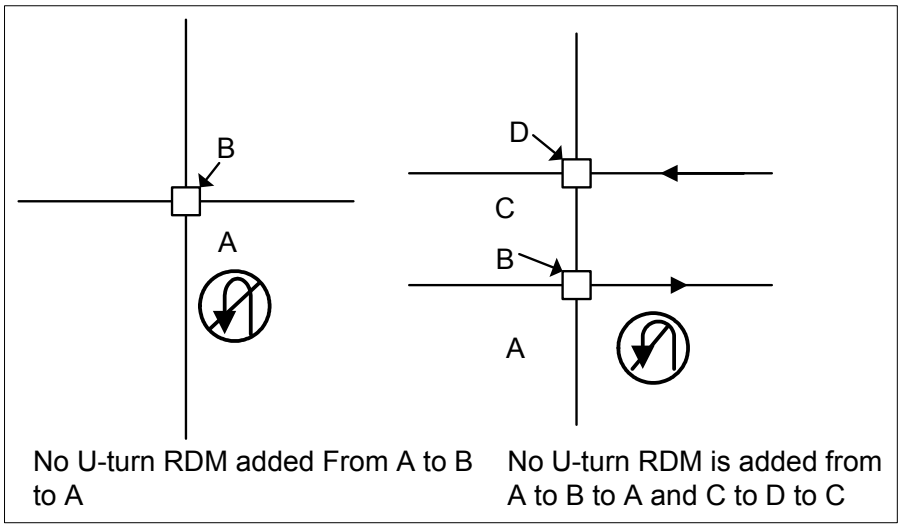


Figure G-1

- Municipal or regional traffic restrictions such as "No U-turns allowed in the city of St. Louis" are not coded in the database. A listing of these cities can be found in the Administrative Areas where U-Turns are not Allowed Document.
- ***Restricted Driving Manoeuvres*** are not coded onto links whose accessibility is already restricted by the link attributes or by other Condition/Driving Manoeuvres, such as:
  - ***Direction of Travel***
  - ***Access Characteristics***
  - ***Divider***
  - ***Z-Level***
  - ***Condition Type*** = 4 (Gate)
- If the an associated Link CDM Date/Time Modifier is not present, the ***Restricted Driving Manoeuvre*** is in effect 24 hours a day, every day of the year.
- Outside the period contained in the associated Link CDM Date/Time Modifier, the ***Restricted Driving Manoeuvre*** is not in effect.
  - The Access Characteristics for the condition are applied based on the information legally posted. For example, "No left turn for trucks only".
- ***Restricted Driving Manoeuvre*** Condition Modifier 1 = 1 (Legal): The manoeuvre is legally prohibited due to posted turn restriction signs, restricted manoeuvre signs, painted traffic restrictions or other traffic regulations. See *Figure G-2*.

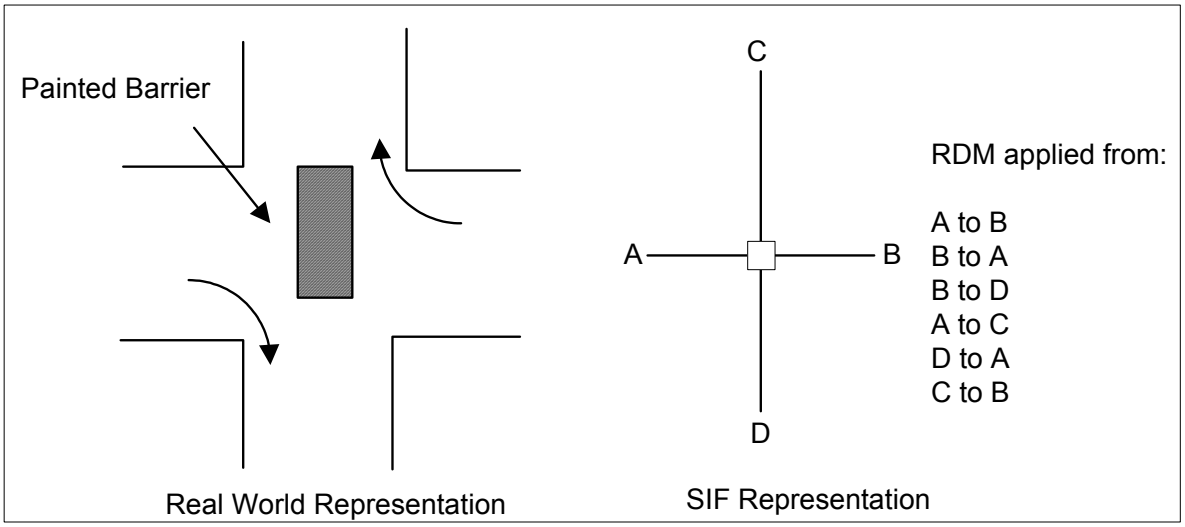


Figure G-2

- ***Restricted Driving Manoeuvre*** Condition Modifier 1 = 1 (Legal) is never in effect for Emergency Vehicles and/or Pedestrians.
  - ***Restricted Driving Manoeuvre*** Condition Modifier 1 = 1 (Legal) can only apply to vehicles that are generally allowed on the link. For example, if Buses are generally not allowed on the link (in the Link Basic Attribute Record), then the manoeuvre cannot apply to Buses.

- ***Restricted Driving Manoeuvre*** Condition Modifier 1 = 3 (Logical): The manoeuvre is logically prohibited. Although not legally or physically restricted, no vehicle would logically make this manoeuvre in order to traverse a link or intersection. See *Figure G-3*.

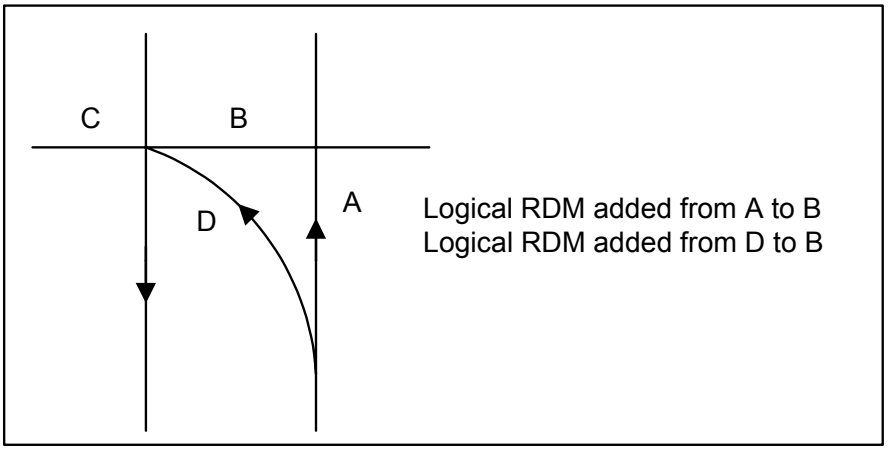


Figure G-3

- ***Restricted Driving Manoeuvre*** Condition Modifier 1 = 3 (Logical) are always in effect for all Access Characteristics except for Pedestrians. Emergency Vehicles are also restricted from ***Restricted Driving Manoeuvre*** Condition Modifier 1 = 3 (Logical). See *Figure G-4* for examples of ***Restricted Driving Manoeuvre*** Condition Modifier 1 = 3 (Logical).

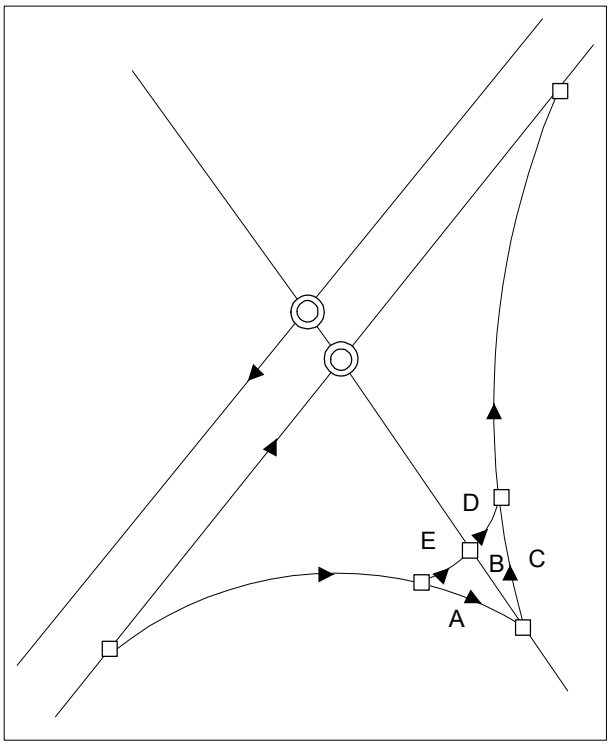


Figure G-4

Restricted Driving Manoeuvre Condition Modifier 1 = 3 (Logical) from:

Link A to Link B

Link A to Link C

Link B to Link C

Link B to Link D

Link E to Link B

- ***Restricted Driving Manoeuvres*** Condition Modifier 1 = 2 (Physical): The manoeuvre is physically prohibited, due to permanent barriers or other permanent physical impediments. See *Figure G-5*.

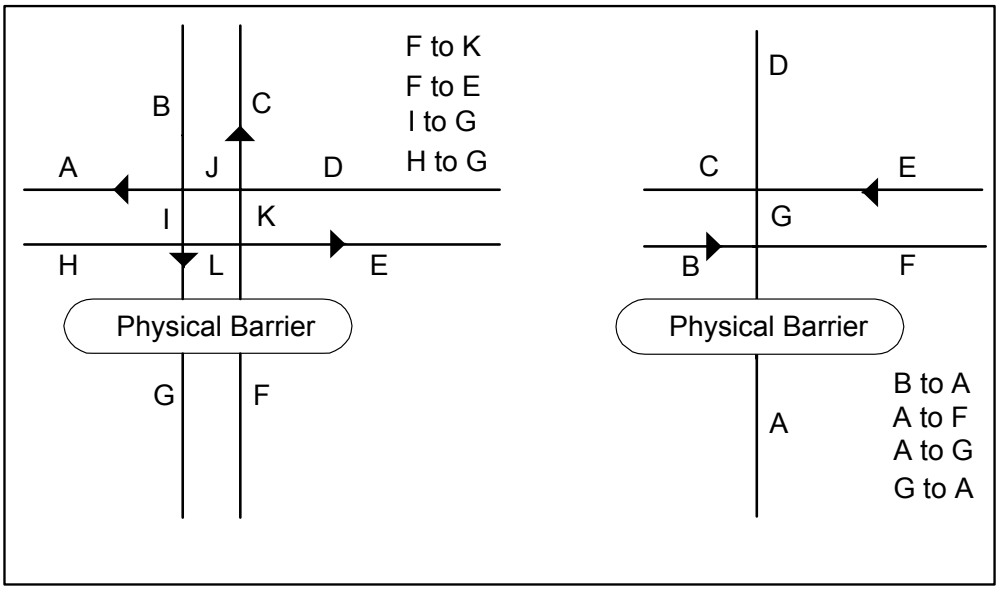


Figure G-5

- ***Restricted Driving Manoeuvres*** Condition Modifier 1 = 2 (Physical) are always in effect for all vehicles allowed on the first link of the manoeuvre, which is found in the Link ID field of this record.
- ***Condition Modifier 2***
  - ***Restricted Driving Manoeuvre*** Condition Modifier 2 = 1 (Dawn to Dusk) is applied when the restricted driving manoeuvre goes into effect at dawn and is no longer in effect at dusk.
  - ***Restricted Driving Manoeuvre*** Condition Modifier 2 = 2 (Dusk to Dawn) is applied when the restricted driving manoeuvre goes into effect at dusk and is no longer in effect at dawn.

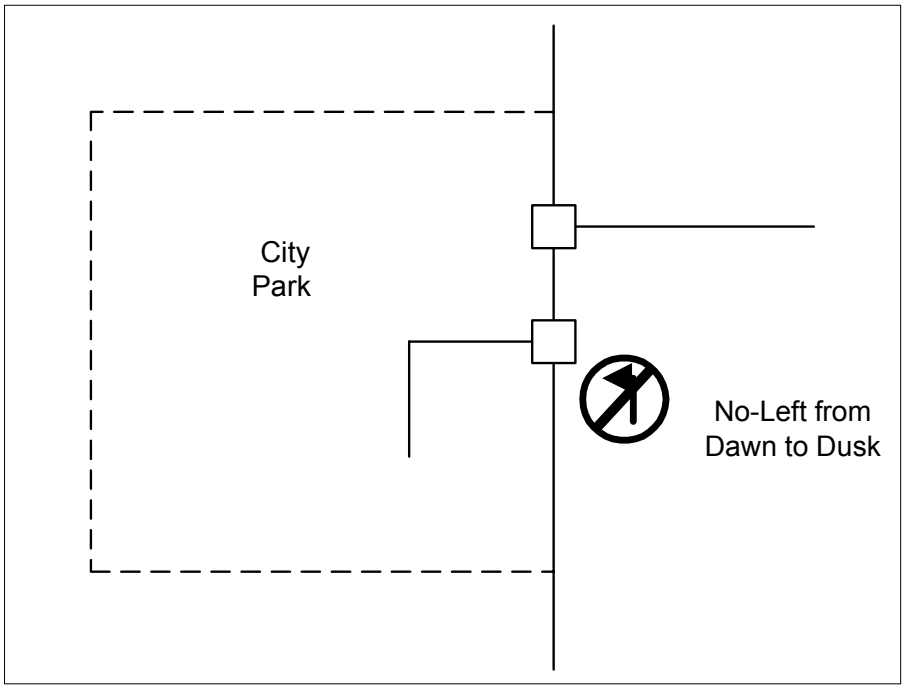


Figure G-6

Appendix H
Rules for European Traffic

(This page intentionally left blank)

H.1 Introduction

This appendix details the rules for European Traffic. In Europe, the RDS-TMC Location Codes are generated by the various country governments and are listed in a database called a Location Table.

H.2 General Rules

The attribute is published in the format: ABCCDEEEEE, where:

A	is the one character Direction of Road.
B	is the one character EBU Country Code.
CC	is the two digit Location Table number.
D	is the one character RDS direction, where: + is in the positive direction and external to the Problem Location. - is in the negative direction and external to the Problem Location. P is in the positive direction and internal to the Problem Location. N is in the negative direction and internal to the Problem Location.
EEEEE	is the five digit Location Code. This has leading zeros if necessary.

- Internal to a location indicates the links that are within the actual Problem Location(PLOC). External to a location indicates the links that are located between the PLOCs. See *Figure H-1*.
- Every Linear Location will start and end with an internal code.
- On motorways, all Problem Locations (PLOCs) must have both a positive and a negative internal code.
- The direction of the Linear Location (positive or negative) will not be coded against the direction of traffic flow.
- In certain circumstances, codes will be applied to ramps and high speed connector links. See *Figure H-10 and Figure H-14*.
- International border crossings usually receive a location code.
- Overlapping PLOCs can exist. In this case links may have multiple internal and external codes.
- On motorways (***Controlled Access*** = Y), all PLOCs will have a positive and a negative internal code which are denoted by “P” and “N” respectively in the ***RDS-TMC*** attribute.

- On non-motorways (***Controlled Access*** = N), PLOCs are applied in the following situations when they exist in the RDS-TMC table:
  - At locations with existing “intersection” geometry such as a ***Roundabout***, links with ***Intersection Internal***, or ***Manoeuvre***, internal codes should be added. See *Figure H-7, diagram 1.*

    Note: Nodes are not added to place internal codes on non-motorways, when there is no ìintersectionî geometry present (in most cases, this applies to single-node intersections between two singly digitised roads and intersections between a singly digitised road and a multiply digitised road). See *Figure H-7, diagram 2.*
  - At river crossings and lakes (if polygon exists).
  - At crossings with ramps.

H.3 Examples

For all figures below, the following legend is used:

Note: The ***RDS-TMC*** codes in the figures below are abbreviated. Only the Directional Indicator and Location ID are given.	
– –	Links between PLOCs. These links receive the code of the next PLOC preceded by a “+” if they are on the positive side of the road and a “-“ if they are on the negative side.
——	Links inside the PLOC. These links receive the code of the next PLOC preceded by a “P” if they are on the positive side of the road and a “N“ if they are on the negative side.
PLOC	Problem Location number based on the country RDS-TMC table.

Figure H-1 shows examples of internal and external codes.

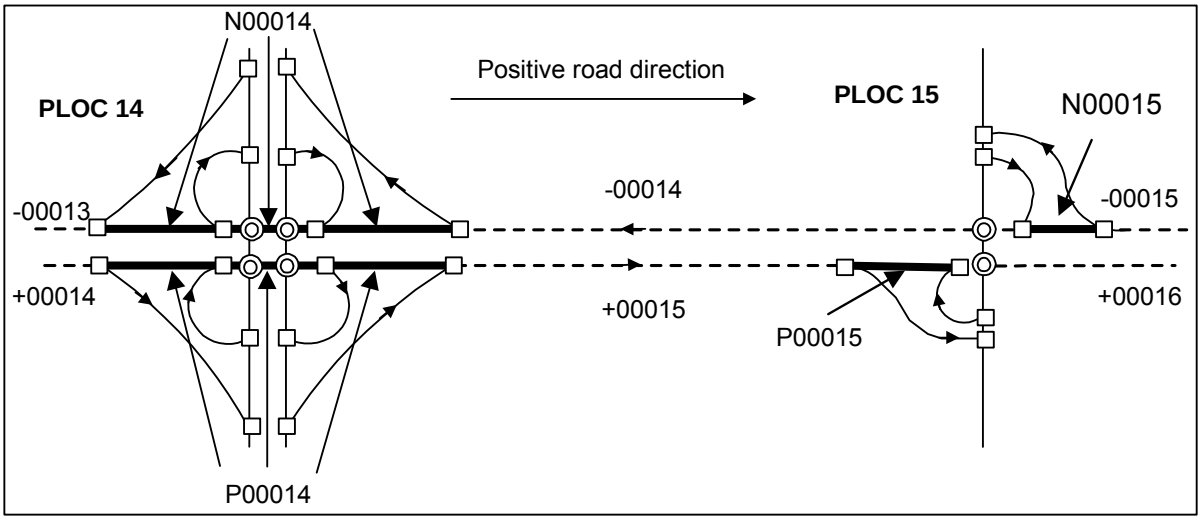


Figure H-1

H.3.1 Placement of Internal Codes on Multiply Digitised Roads with Ramps

H.3.1.1 Multiply Digitised Road with only One Ramp

Internal ***RDS-TMC*** codes are located between the 'exit' and 'entrance' ramps. In cases where only one exit or one entrance ramp exists, the following is applied:

- Only an exit ramp: Internal code should be placed *after* the exit ramp.
- Only an entrance ramp: Internal code should be place *before* the entrance ramp. See *Figure H-2* and *Figure H-3*.

The internal code is located between the start of the ramp and the logical end point of the PLOC. The internal code should end at the road crossing.

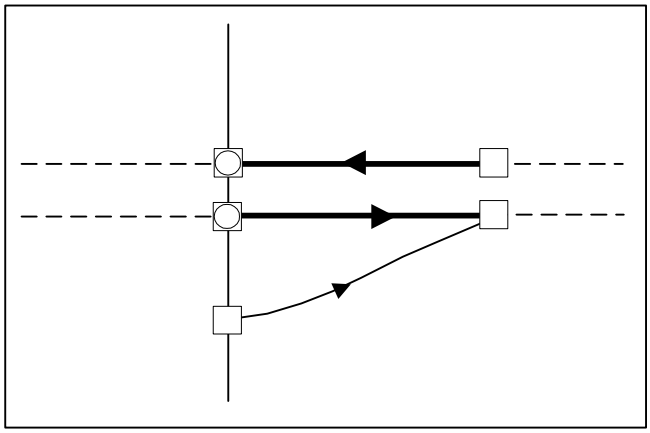


Figure H-2

H.3.1.2 Multiply Digitised Road with only One Ramp on Either Side

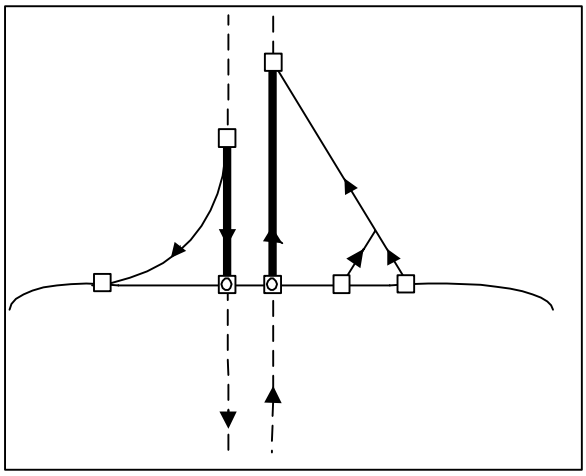


Figure H-3

H.3.1.3 Multiply Digitised Road with Three Ramps

Where two ramps exist on one side of the road, and the other side has one ramp (exit or entrance), the extent of the PLOC (on the side with the single ramp) should be limited as shown in *Figure H-4*.

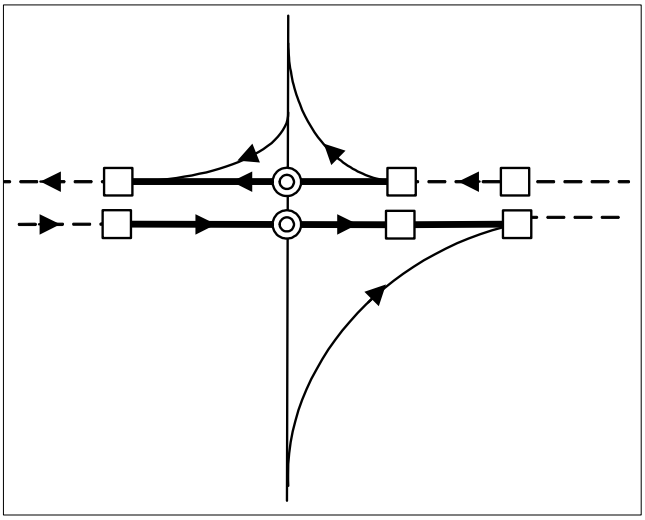


Figure H-4

H.3.1.4 Multiply Digities Roads with Ramps on Both Sides

The internal code is located between the on and off ramp on each side. See *Figure H-5* and *Figure H-6*.

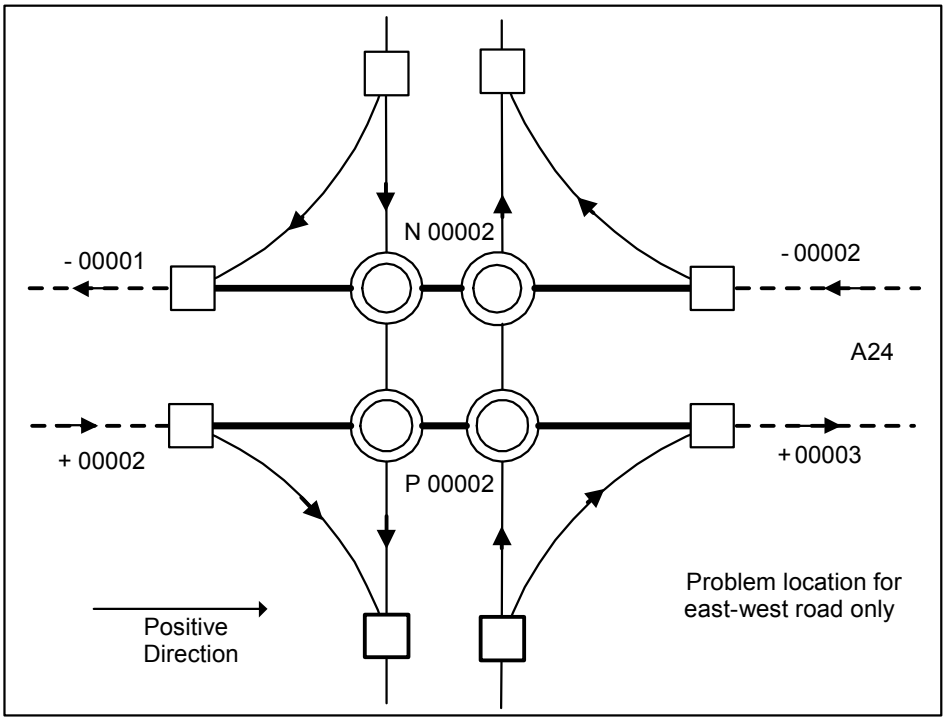


Figure H-5

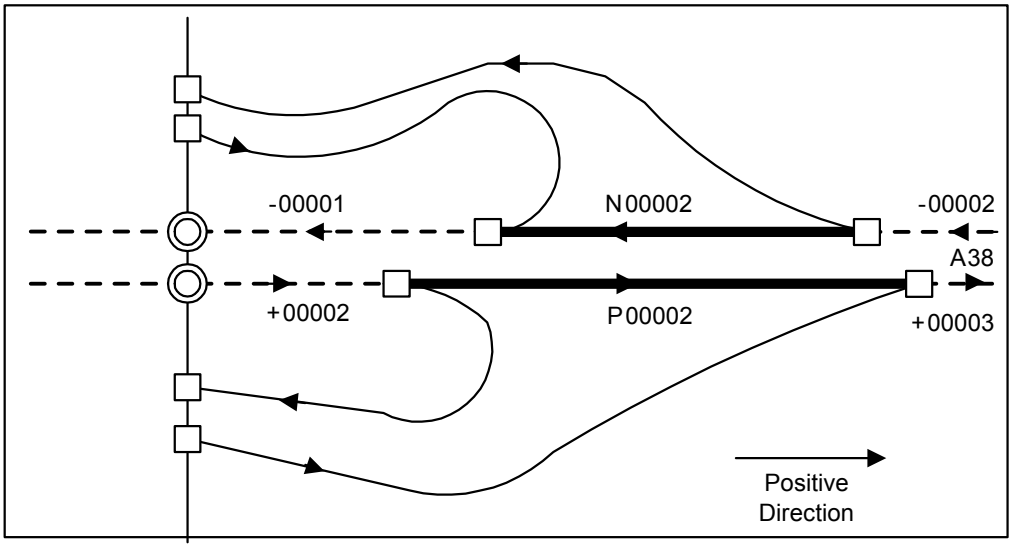


Figure H-6

H.3.2 Placement of Internal Codes on Bi-Directional Roads

In the case of bi-directonal roads, internal codes may not be placed in the SIF. See *Figure H-7*. However, the PLOC does exist on the traffic table.

H.3.2.1 Intersections

Figure H-7 shows how internal codes are applied on intersections.

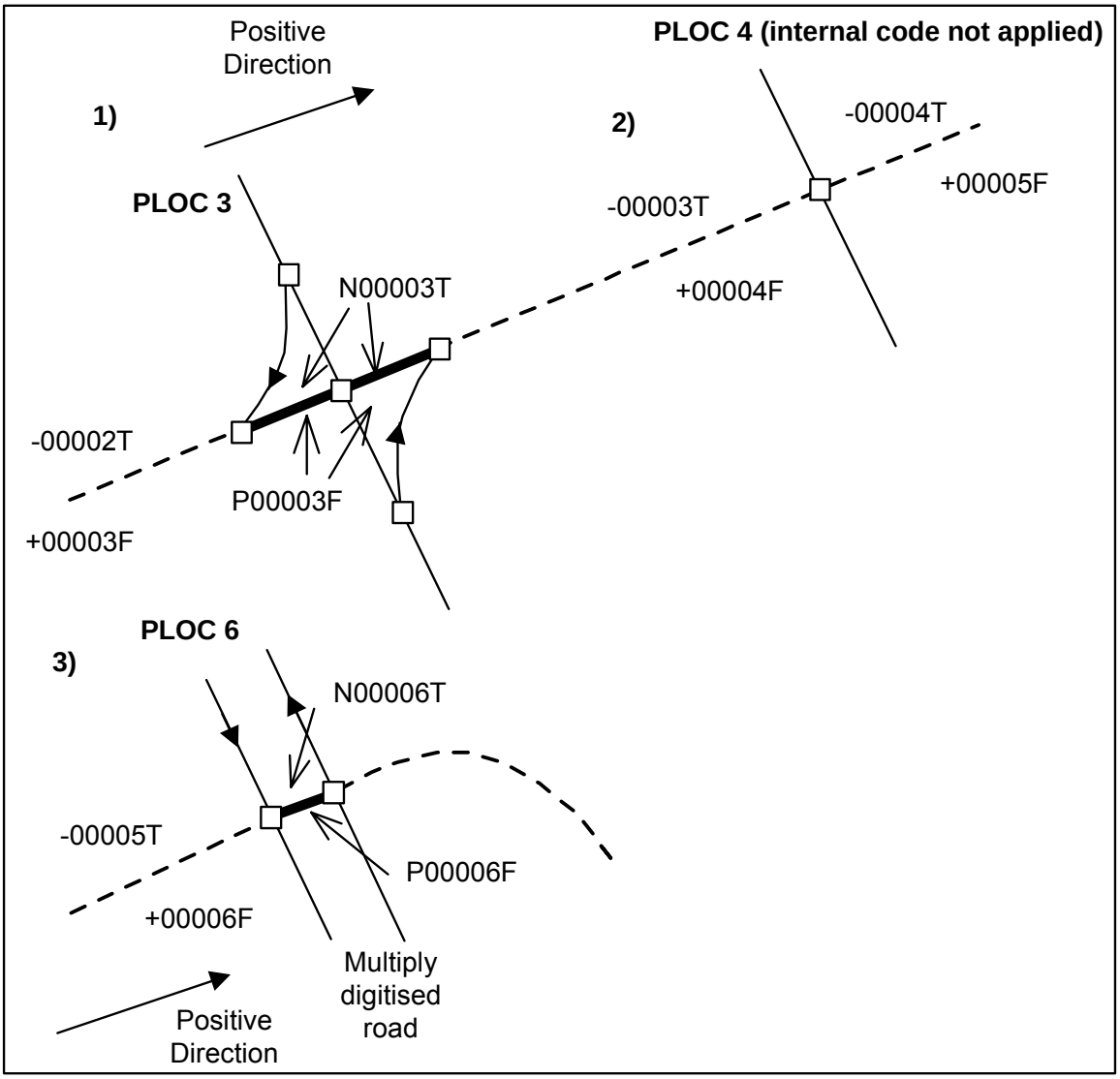


Figure H-7

H.3.2.2 Intersection with Two Roads as Problem Location

Figure H-8 shows how internals are applied on an intersection with two roads as PLOC: The internals are placed on Link A; the PLOC is the intersection of “Main Road” and “Red Road.”

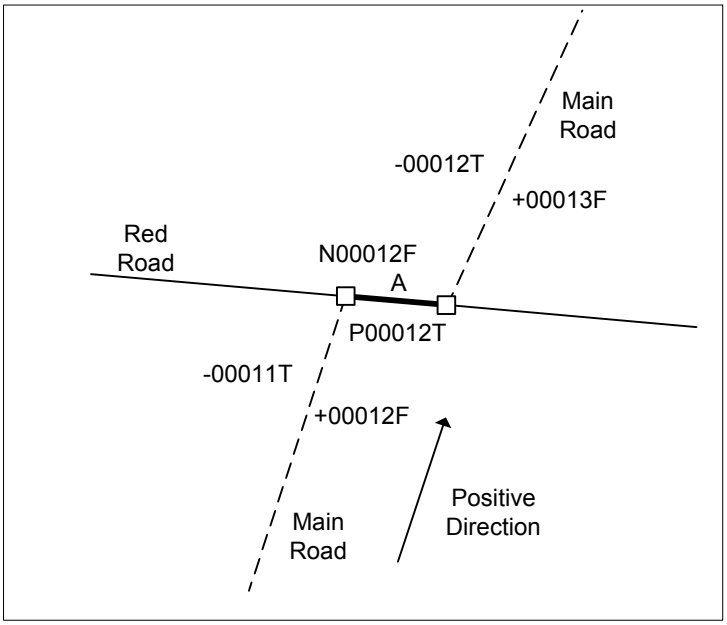


Figure H-8

H.3.2.3 Bi-Directional Roads with Ramps on Both Sides

The internal code is located between the two ramps. See *Figure H-9* and *Figure H-10*.

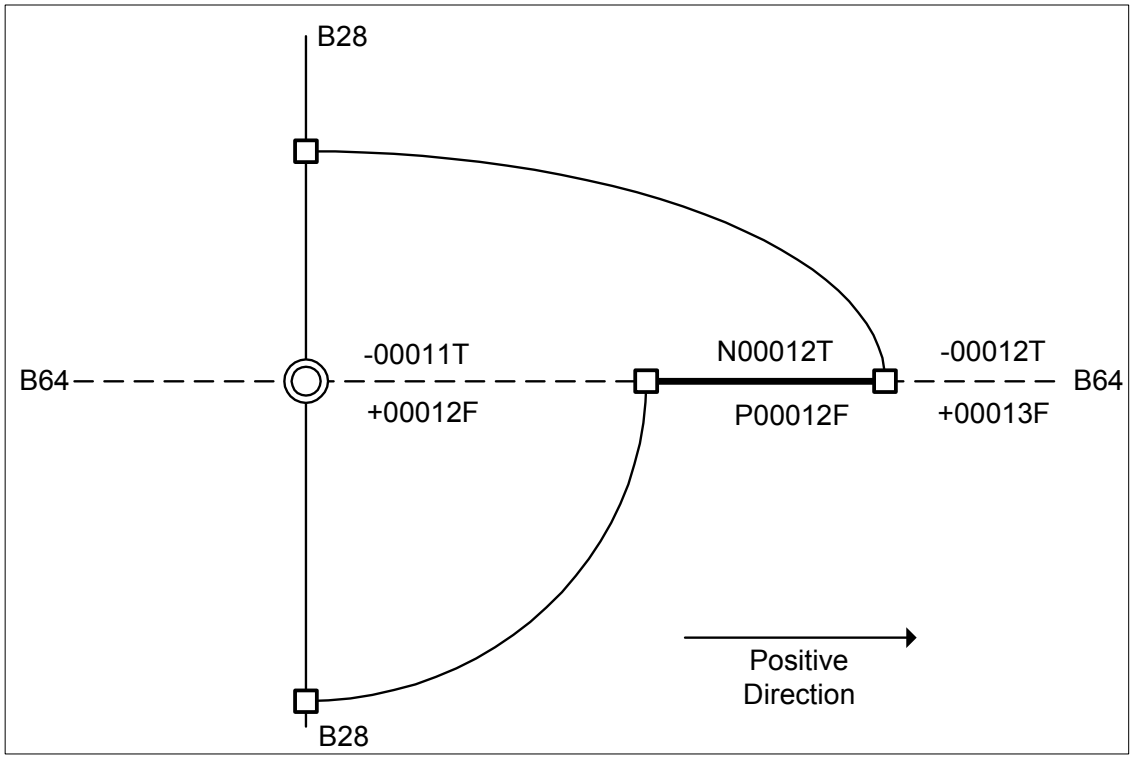


Figure H-9

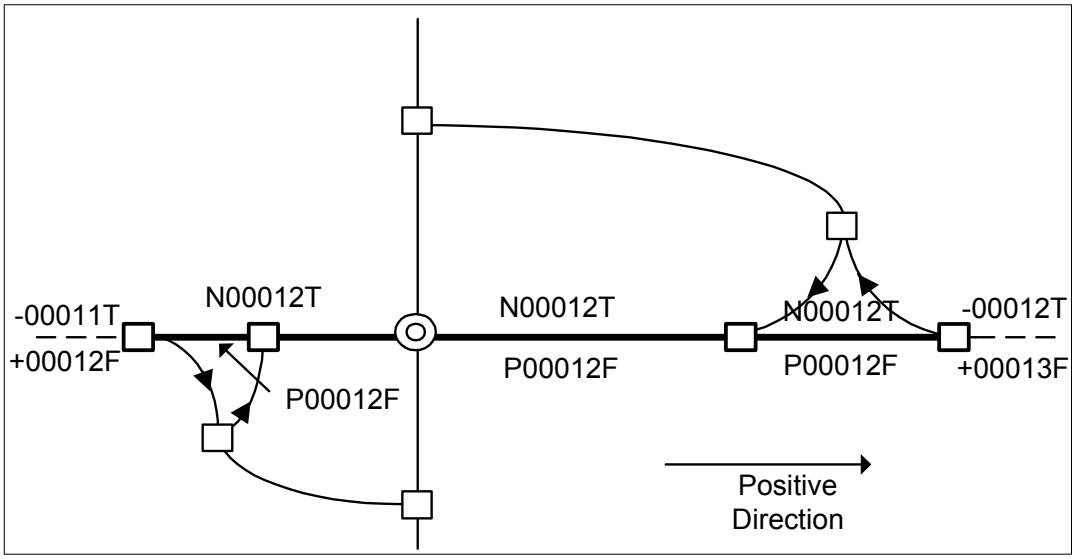


Figure H-10

H.3.3 Placement of Internal Codes at the Start or End of an RDS-TMC Path

H.3.3.1 At the Start/End of a Multiply Digitised Road

If the start or end of the Linear Location is a multiply digitised road, the internal codes are applied as shown in *Figure H-11*.

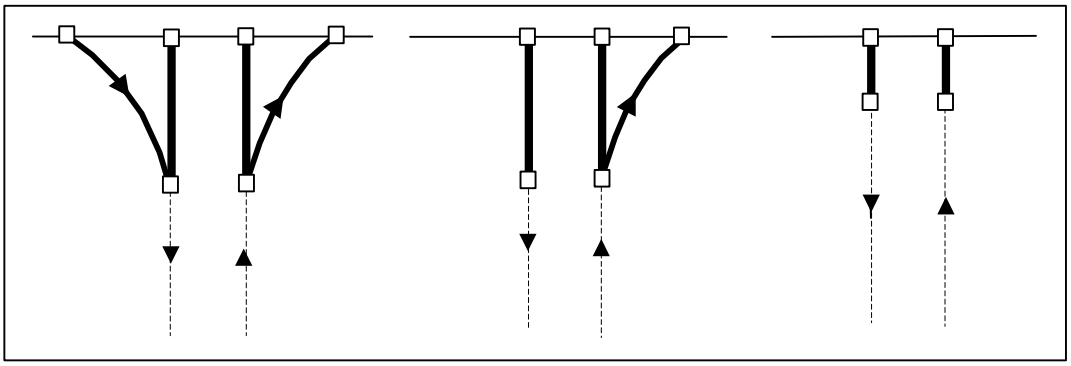


Figure H-11

H.3.3.2 At the Start/End of a Singly Digitised Road

If the start or end of the Linear Location is a singly digitised road, the internal codes are applied as shown in *Figure H-12*.

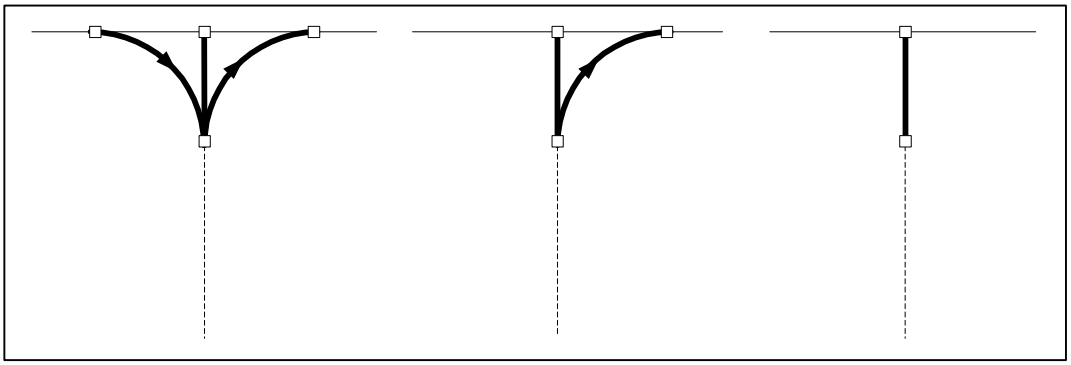


Figure H-12

H.3.3.3 Roundabout

Where a roundabout is the start or end of a Linear Location. Positive internals are applied on one side of the roundabout and negative internals on the other side (the side depends on the positive direction of the RDS-TMC path). See *Figure H-13*.

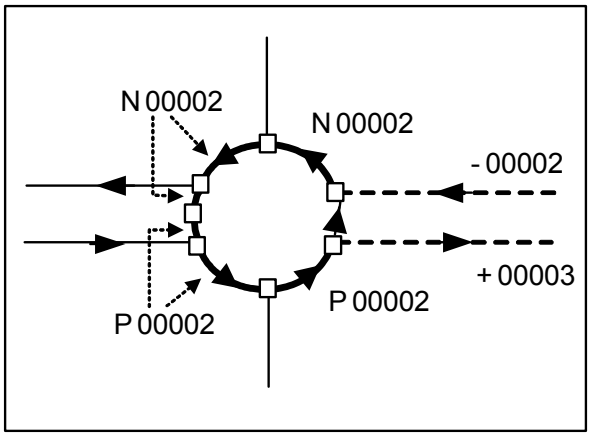


Figure H-13

H.3.3.4 End of Linear Location with Highway to Highway Connectors

Internal codes are not applied to ramps when the PLOC is the start or end of the RDS-TMC path. Internal codes are only applied to ramps when the motorway ends with a T junction, or when there is a motorway to motorway connection where it is unclear where one motorway ends and the other begins, see *Figure H-14*.

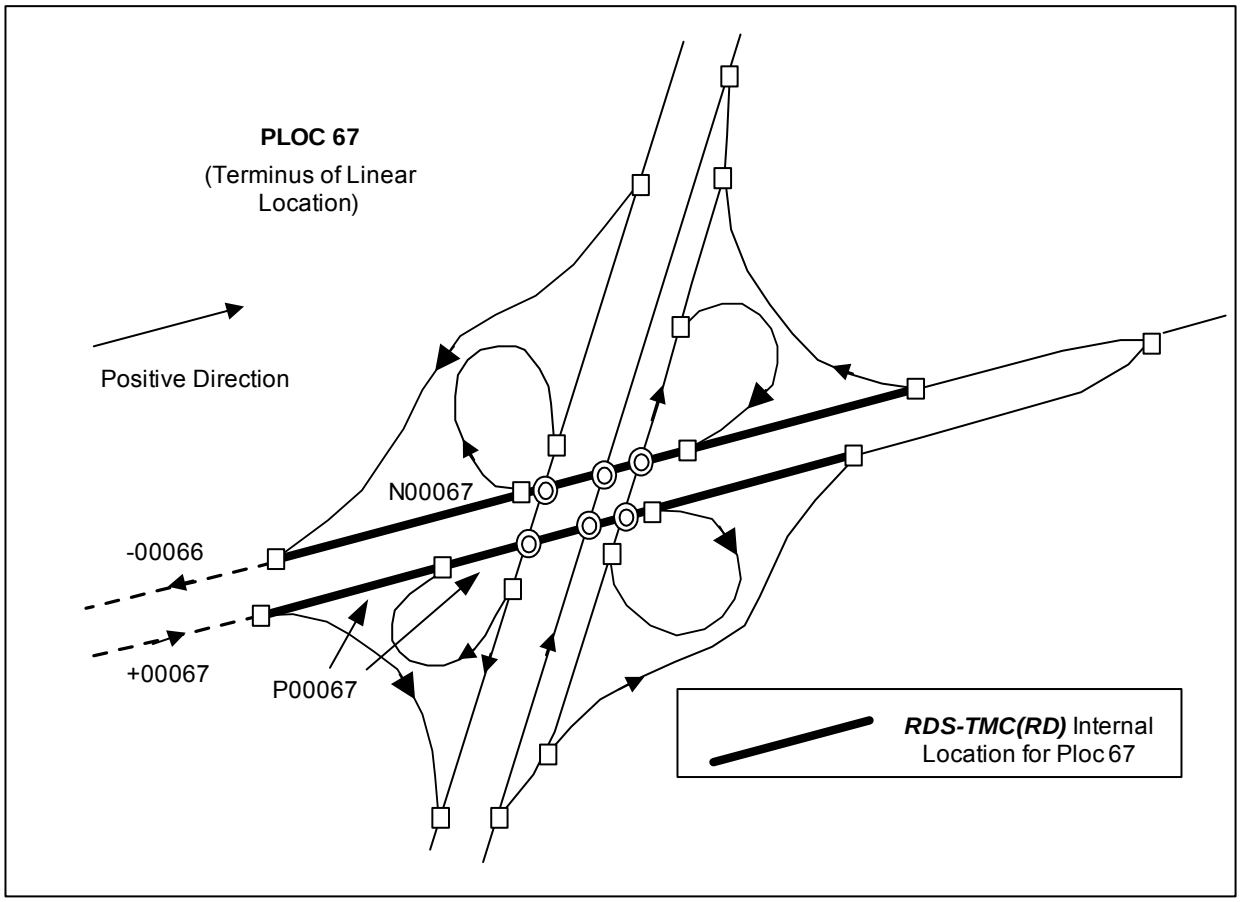


Figure H-14

Internal codes are applied to ramps when there is a motorway connection where it is unclear where one motorway ends and the other begins. See *Figure H-16*.

Internal codes are only applied to the motorway and ramp links that are part of the coded road.*Figure H-15* shows the A2 turning instead of going straight through the junction. The highlighted links show the PLOC.

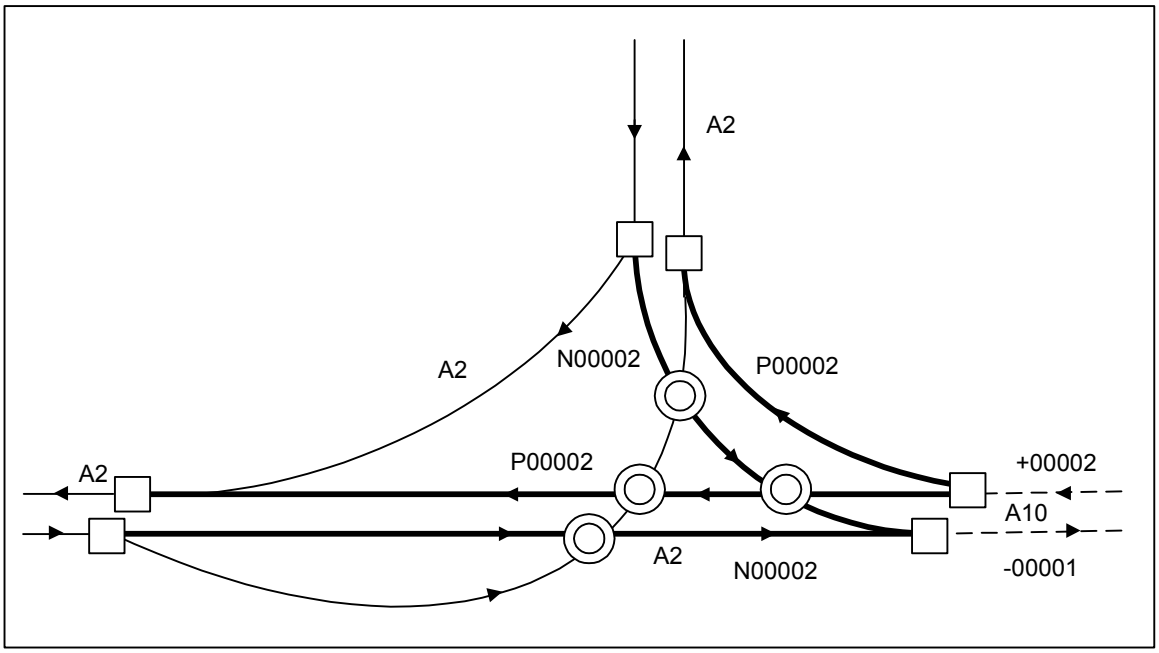


Figure H-15

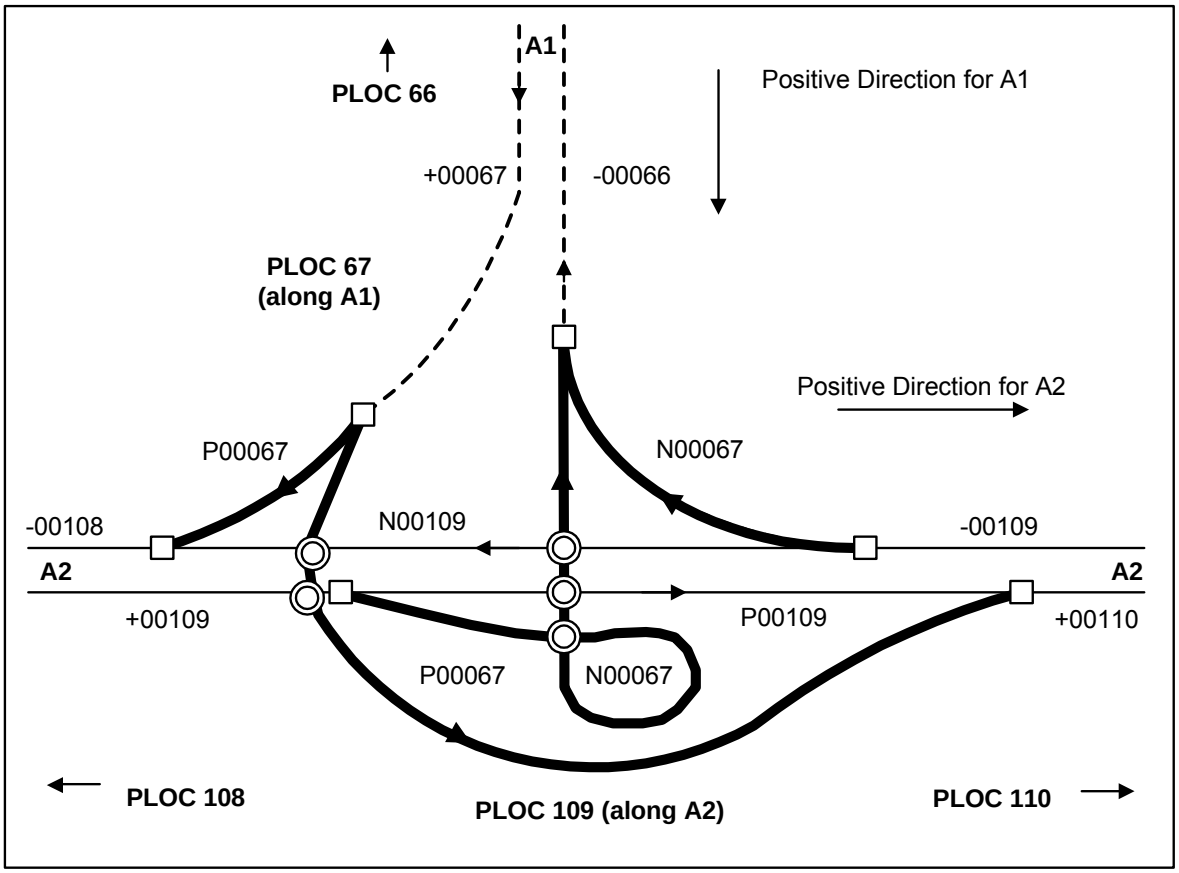

A1
PLOC 66
Positive Direction for A1
+00067
-00066
PLOC 67
(along A1)
Positive Direction for A2
P00067
N00067
-00108
N00109
-00109
A2
A2
+00109
P00109
+00110
P00067
N00067
PLOC 108
PLOC 109 (along A2)
PLOC 110

Figure H-16

H.3.3.5 End of Linear Location Where Road Geometry Continues

The ramps are not coded in this situation. PLOC 67 is the last code along the A1. Internals are coded as indicated in *Figure H-17*.

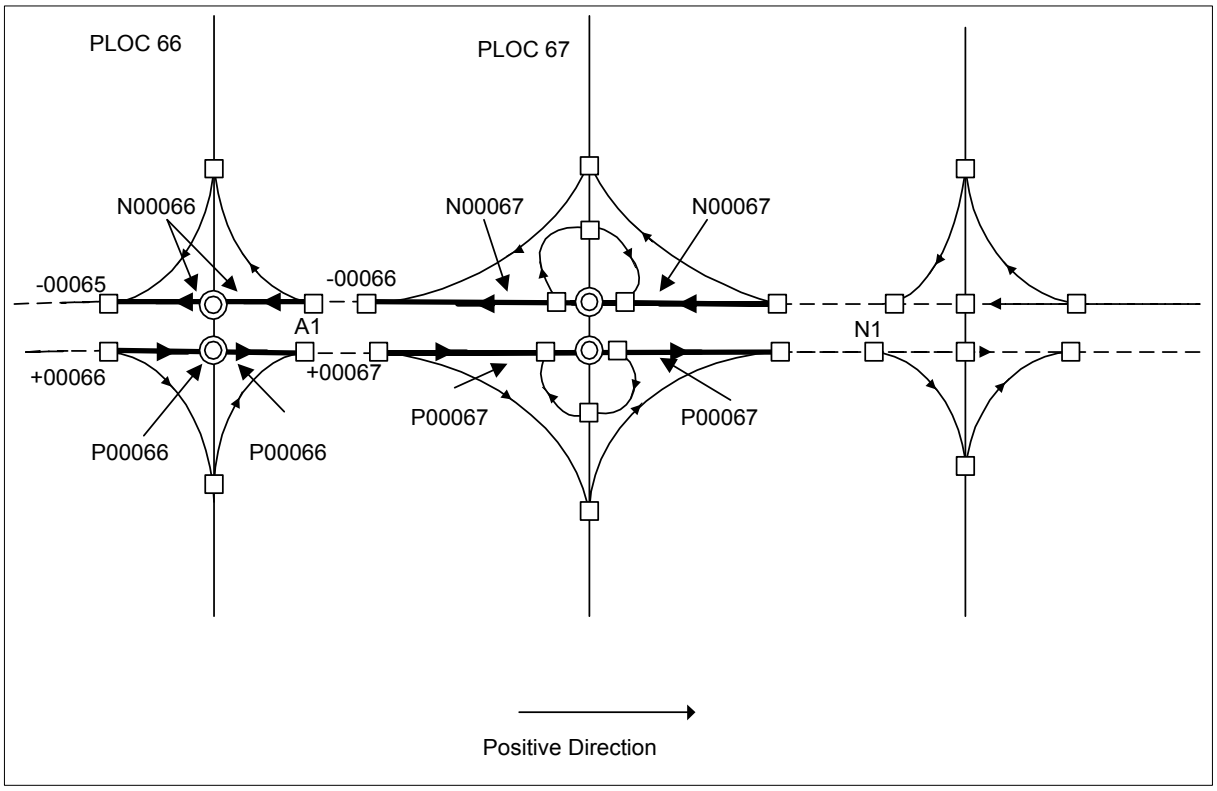


Figure H-17

H.3.3.6 End of Linear Location Where Road Geometry Ends

Internals are applied as shown in *Figure H-18*.

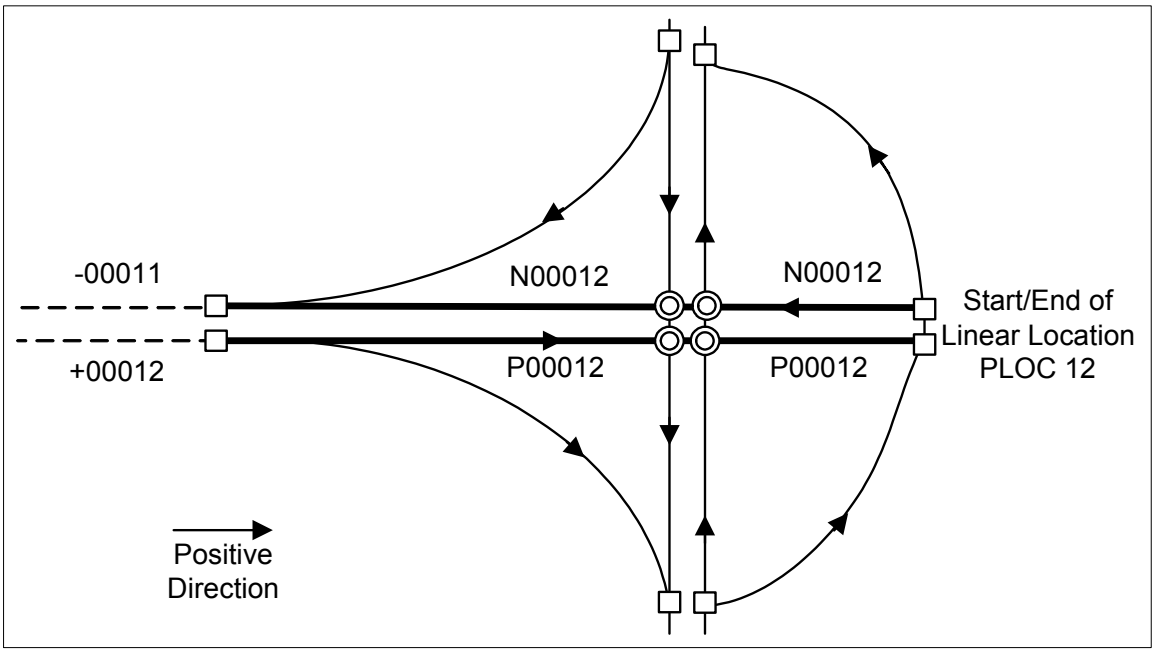


Figure H-18

H.3.3.7 End of Linear Location on a Singly Digitised Road Where Geometry Continues

As illustrated in *Figure H-19*, PLOC 87 is the last code along N2. Internals are coded as indicated. The ramps, however are not coded in this situation.

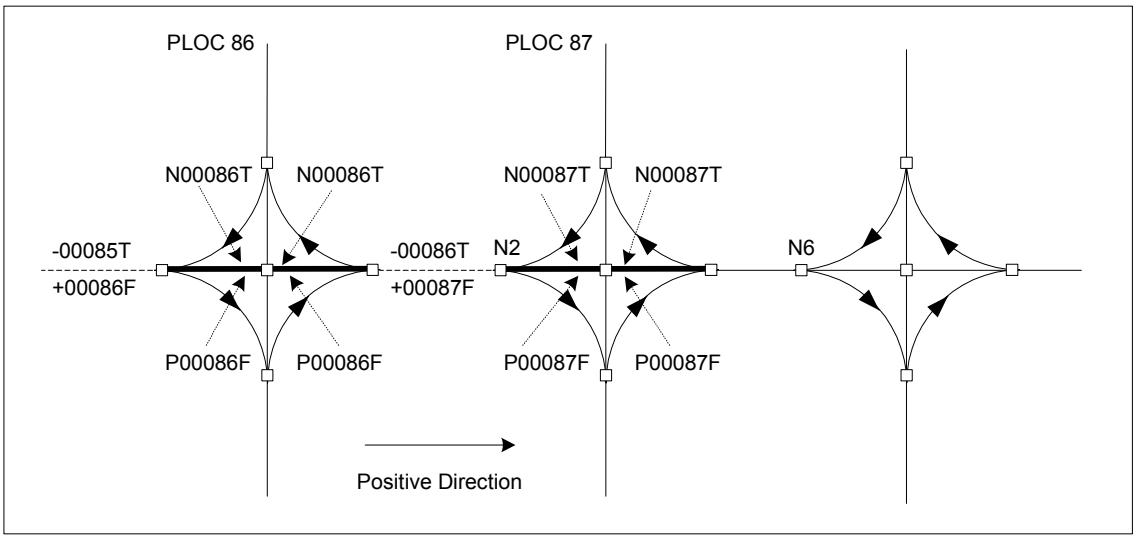


Figure H-19

H.3.4 Placement of Internal Codes in Complex Situations

Internal codes are only applied to the motorway and ramp links that are part of the road being coded. *Figure H-20* shows the A2 turning instead of going straight through the junction. The highlighted links show the Problem Location.

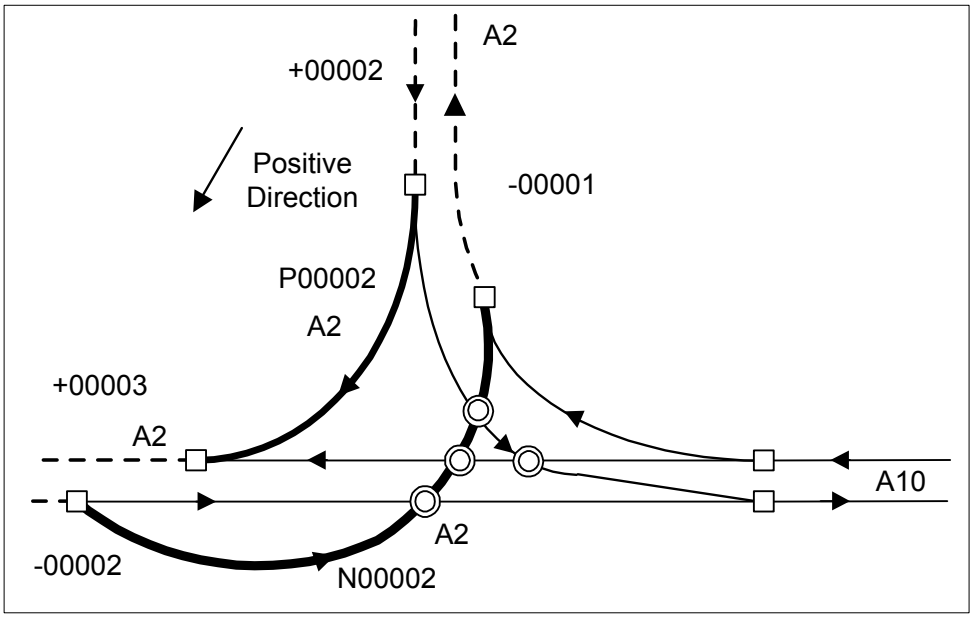


Figure H-20

H.3.4.1 Problem Location within one way System (Example of missing external codes)

In *Figure H-21*, PLOC 17 will not be coded in the negative direction since no intersection geometry is present.

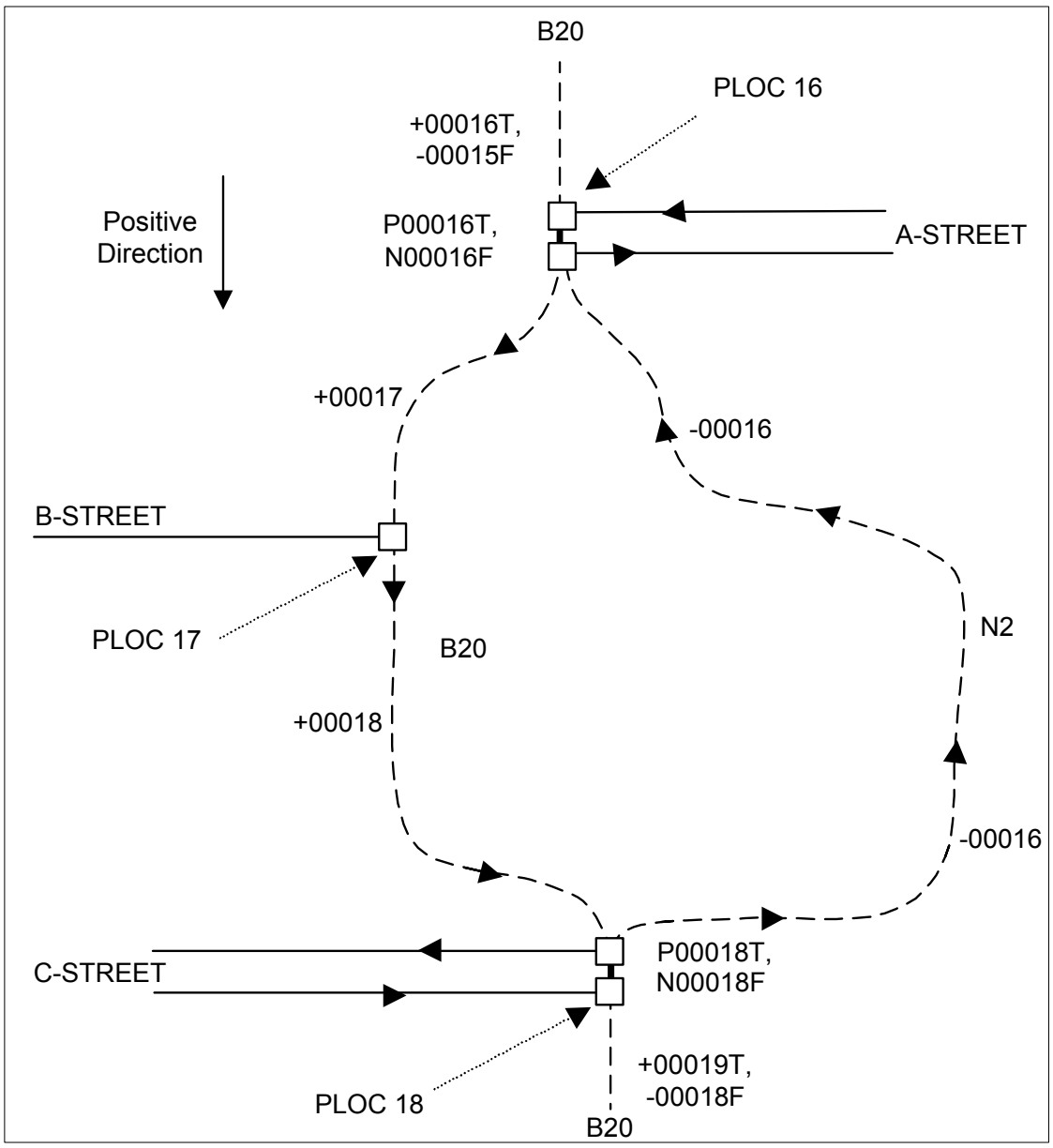


Figure H-21

H.3.4.2 Touching Problem Locations

Problem Locations are allowed to share a node. See *Figure H-22*.

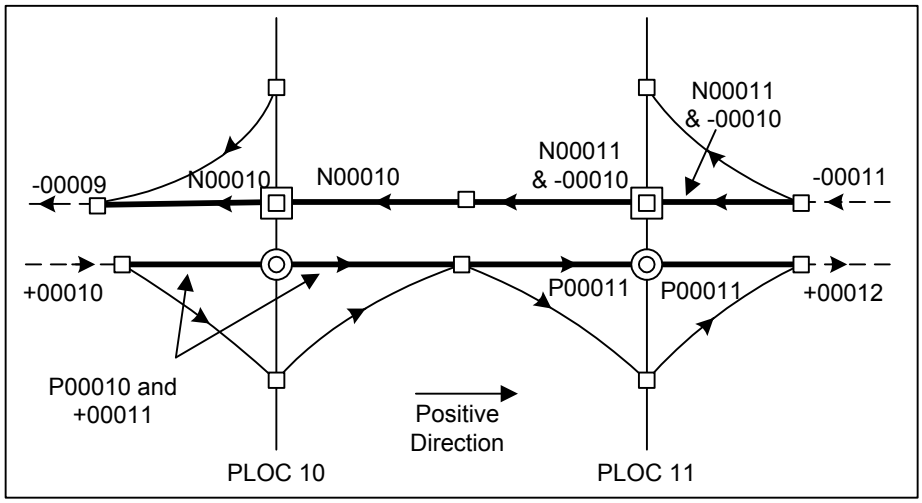


Figure H-22

H.3.4.3 Problem Location within another Problem Location

A Problem Location may exist inside another Problem Location. See *Figure H-23*.

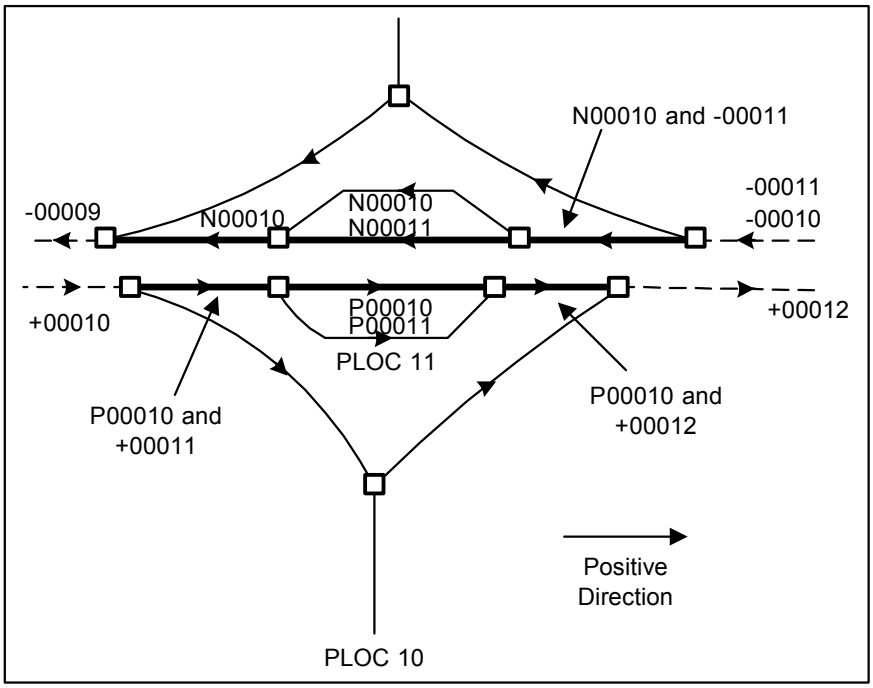


Figure H-23

H.3.4.4 Overlapping Problem Locations

Problem Locations may overlap with each other. See *Figure H-24*.

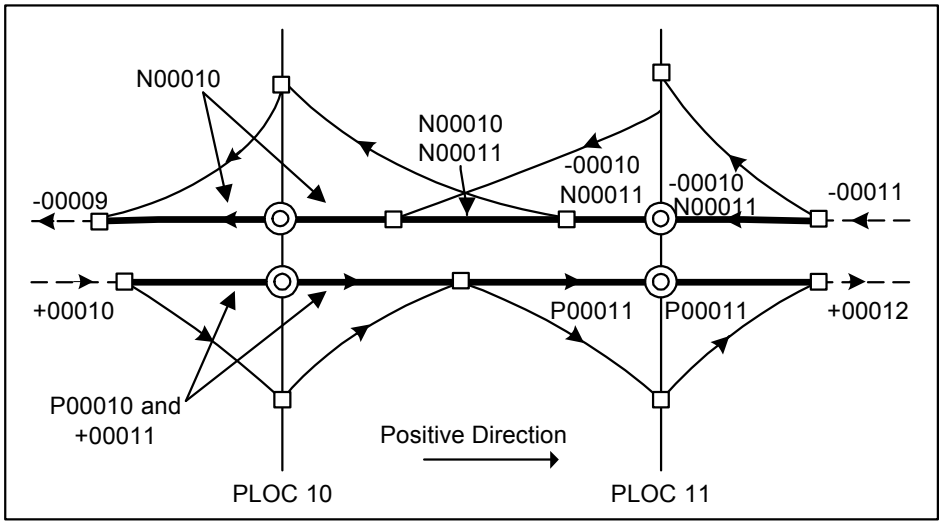


Figure H-24

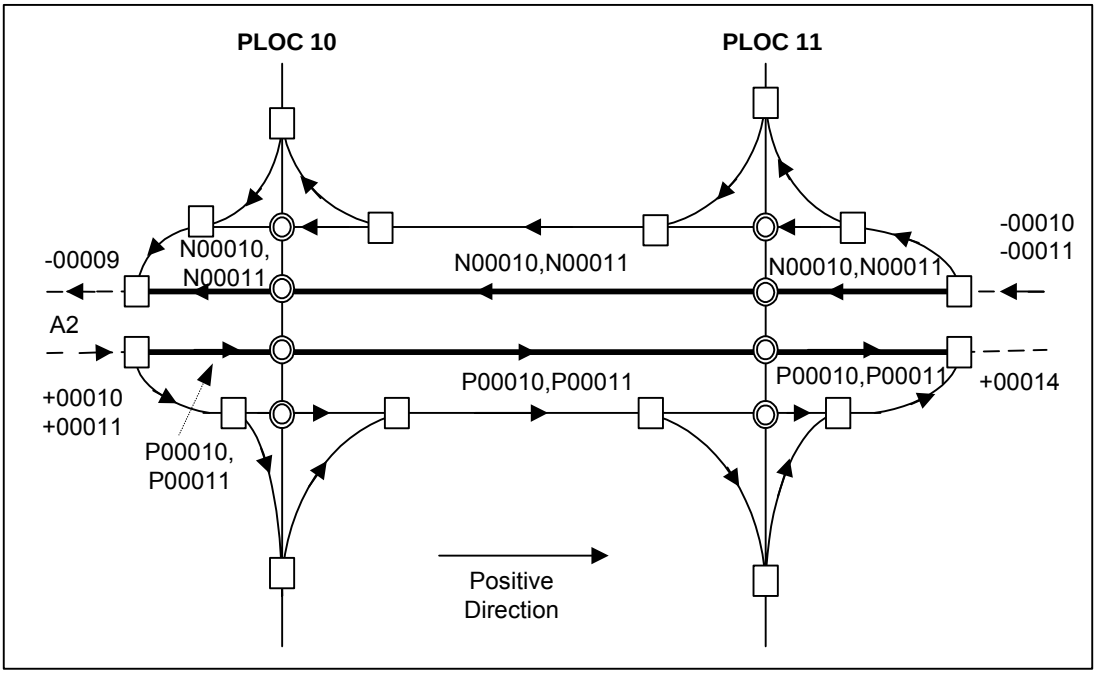


Figure H-25

H.3.4.5 PLOC at Intersection

The RDS-TMC codes will follow the path that the road is taking. *Figure H-26* show the B36 turning instead of going straight through the intersection.

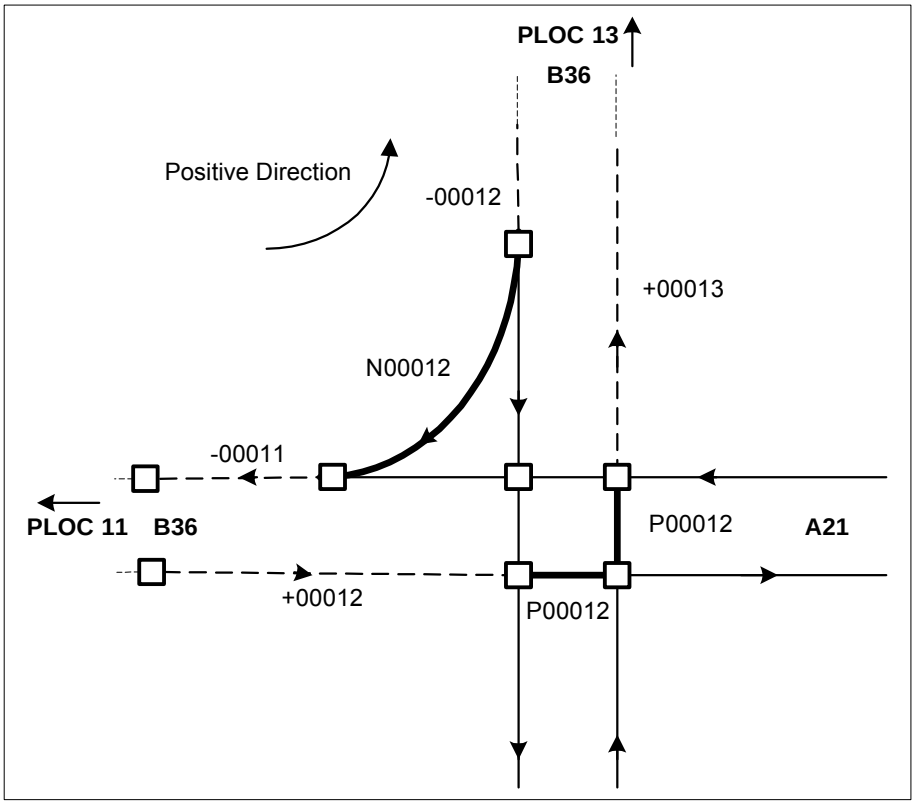


Figure H-26

H.3.4.6 Internal Codes When a Linear Location Turns

Internal (and external) codes are applied as shown in *Figure H-27* and *Figure H-28* when Linear Location turns.

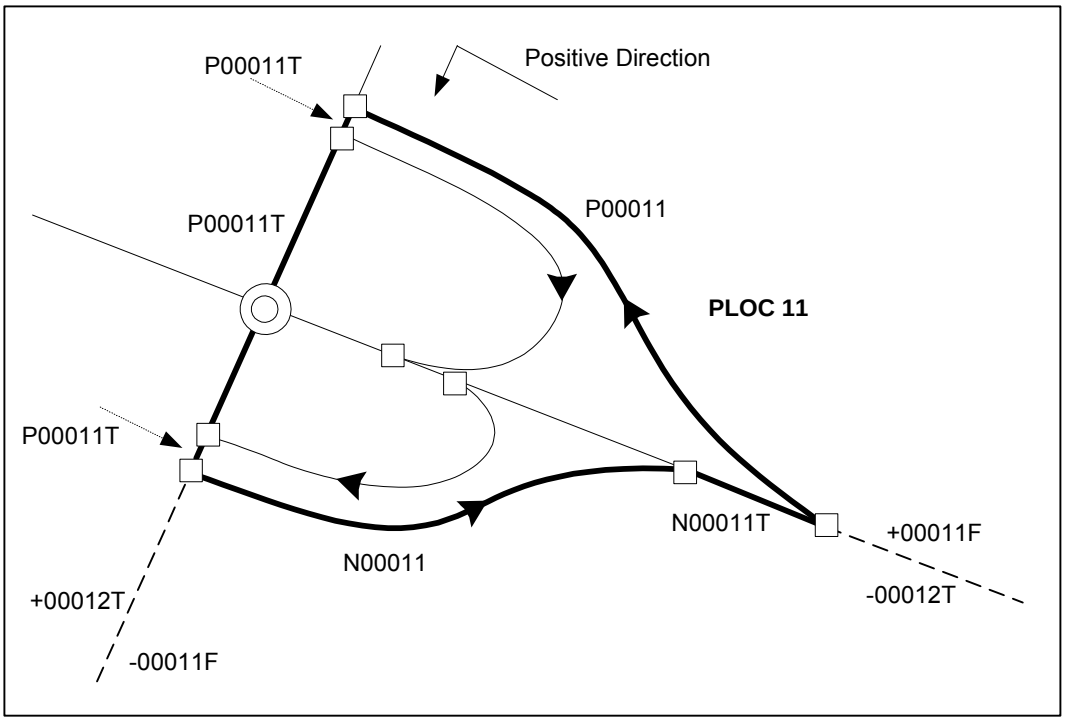


Figure H-27

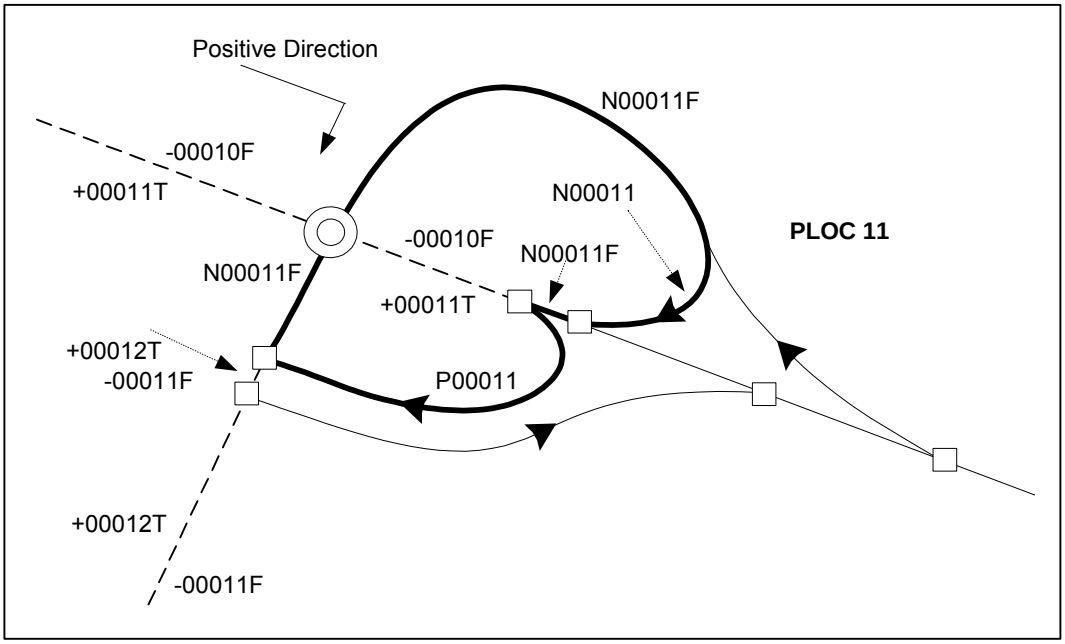


Figure H-28

H.3.4.7 Crossing at Grade with One Turn Lane

Only one internal code is applied when a multiply digitised road crosses at grade and only one turn lane exists. See *Figure H-29*.

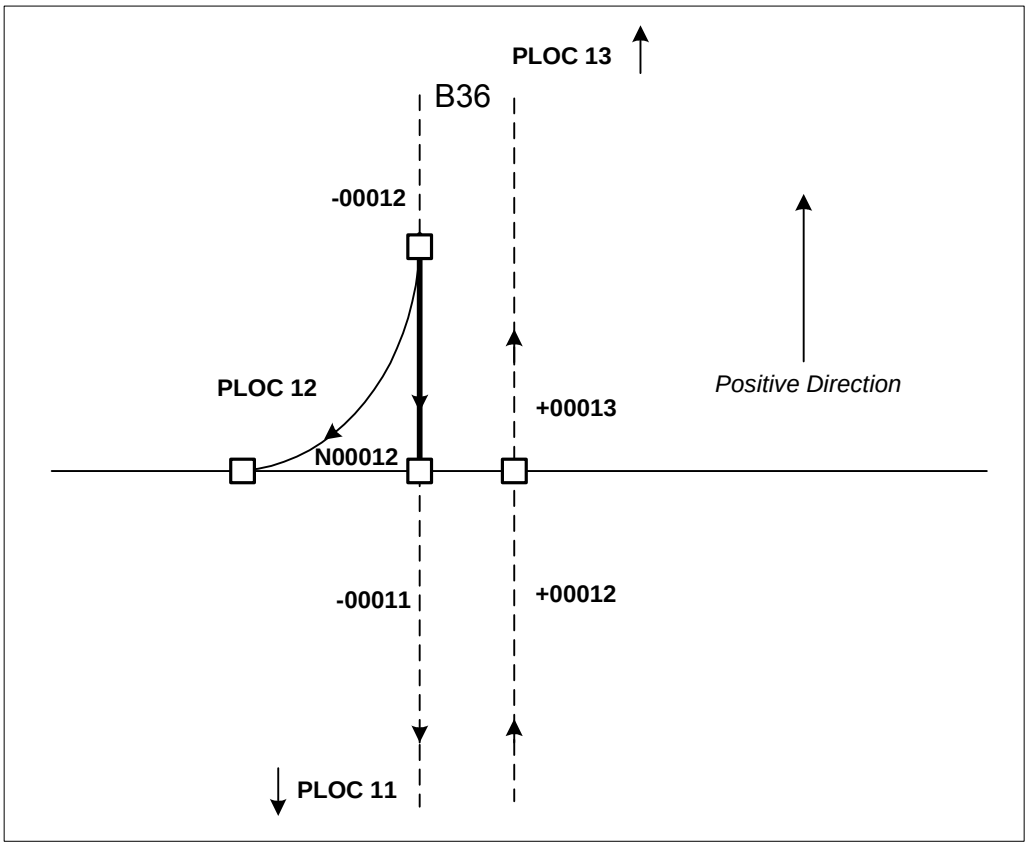


Figure H-29

H.3.5 Placement of Internal Codes for Specific Features

H.3.5.1 Rest Areas

Where a PLOC exists for a rest area along only one side of a multiply digitised road, the appropriate internal code is applied to those links, as shown in *Figure H-30*, diagram A. Opposing rest areas are usually assigned unique RDS-TMC codes for each side, as shown in *Figure H-30*, diagrams B and C.

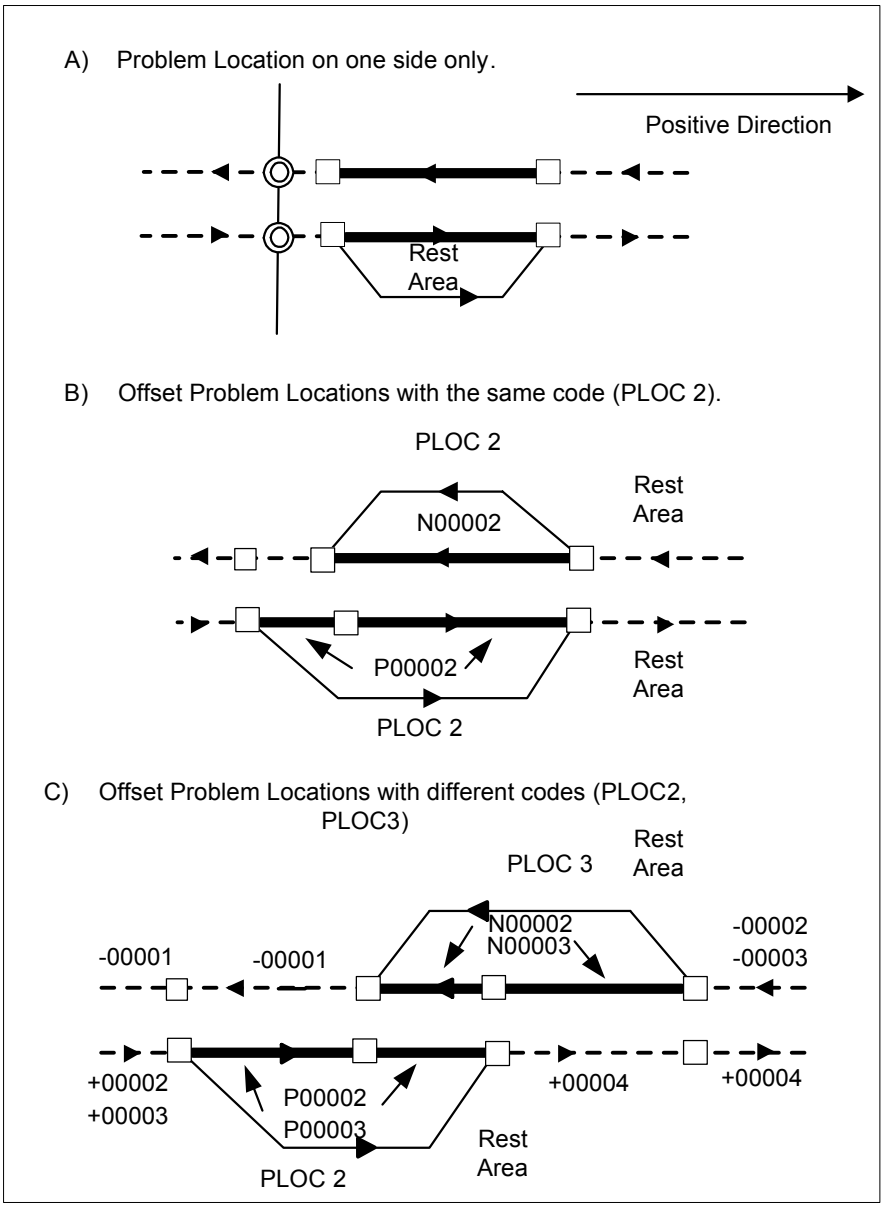


Figure H-30

H.3.5.2 Bridge

The internal code is applied between the start and the end of the bridge. See *Figure H-31*.

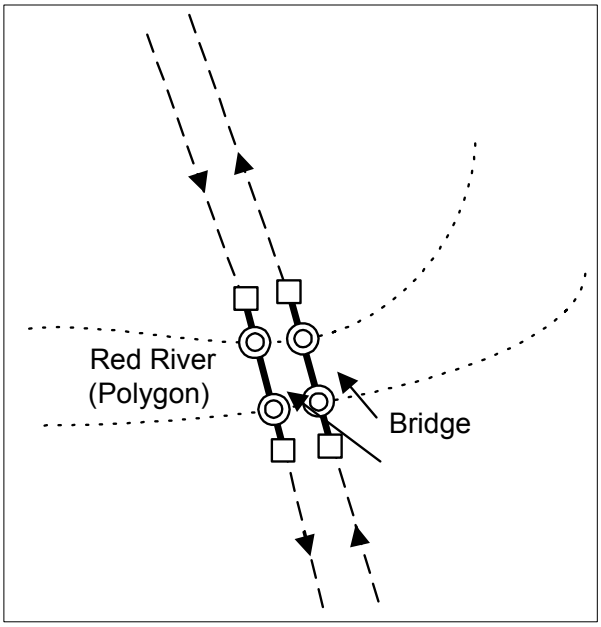


Figure H-31

H.3.5.3 Roundabouts

The positive and negative internal codes are applied along the ‘outside’ links of the roundabout. See *Figure H-13*.

H.3.5.4 Border (Crossing Multiply Digitised Road)

Where country borders and other administrative borders are PLOCs, nodes are applied to place the internal codes. See *Figure H-32*.

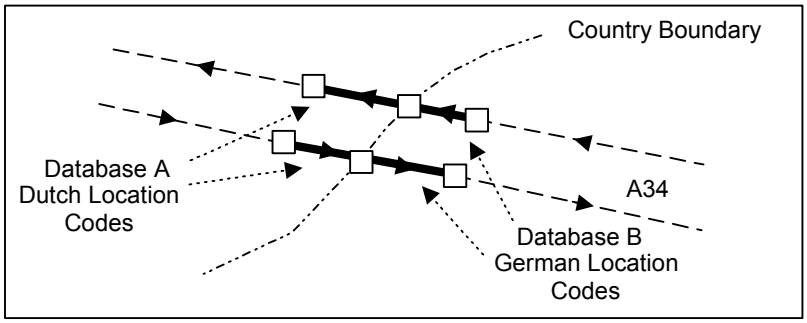


Figure H-32

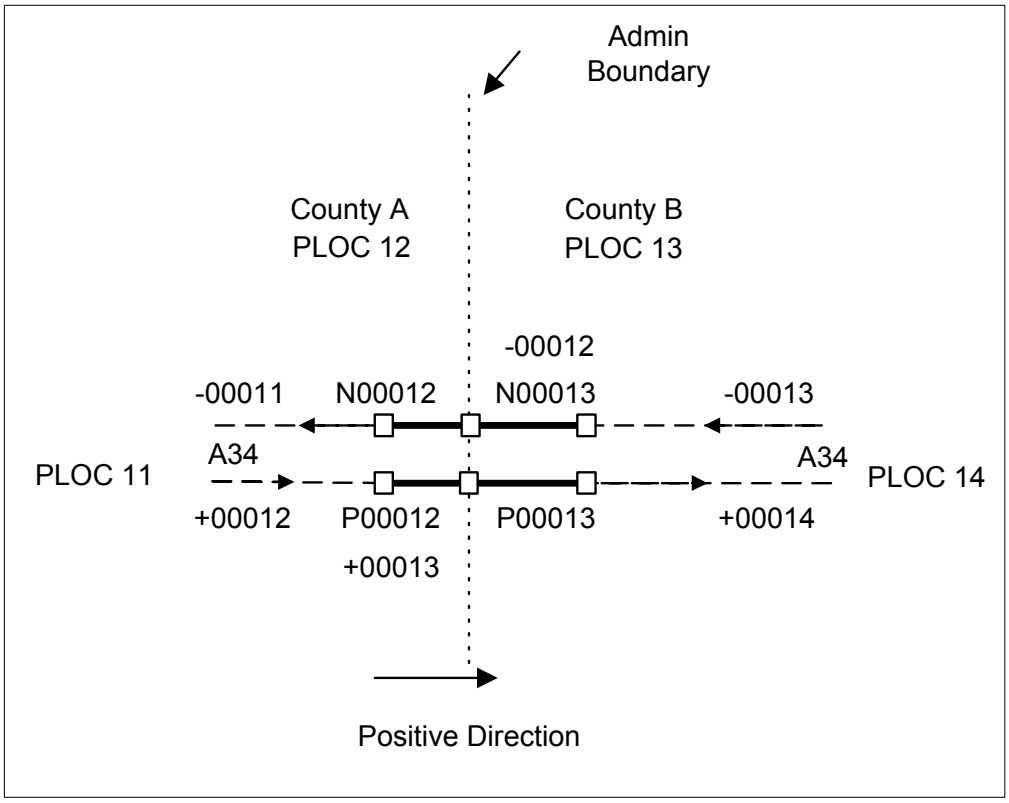


Figure H-33

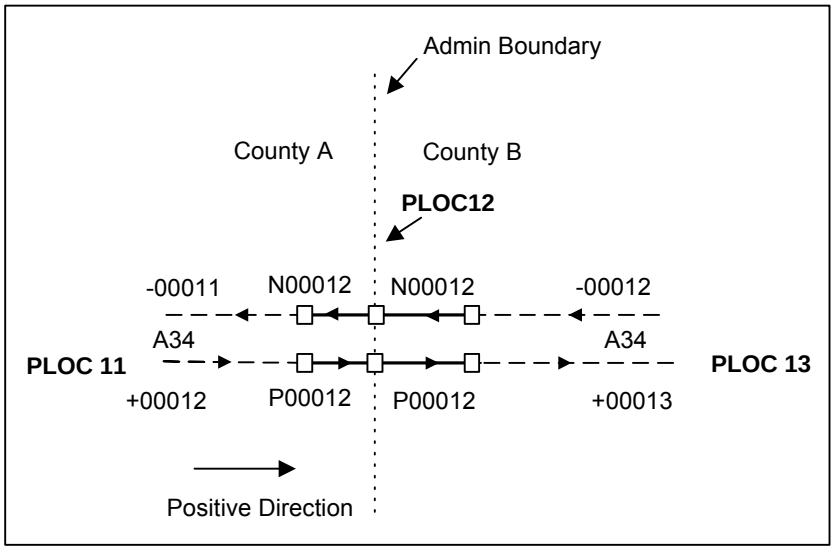


Figure H-34

H.3.5.5 Administrative Boundary On Bi-Directional Road

Where an Administrative Boundary crosses a bi-directional road, only external codes are applied. See *Figure H-35*.

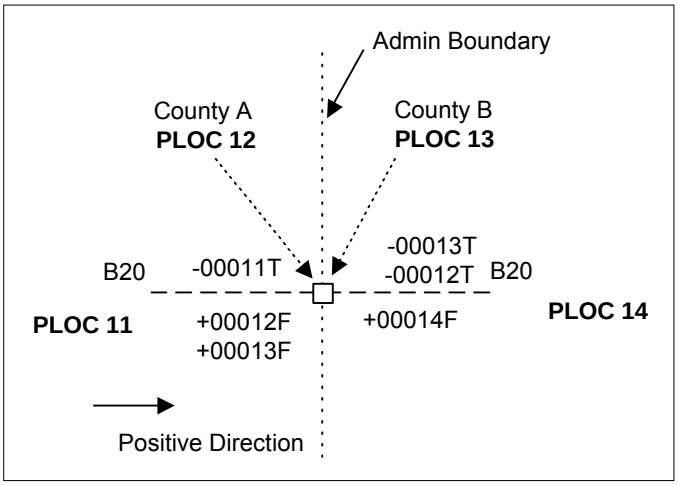


Figure H-35

H.3.5.6 Road Crossing Linear River

Where a singly digitised road crosses a singly digitised river, internal codes are not required. If the nodes exist internals are applied. See *Figure H-36*.

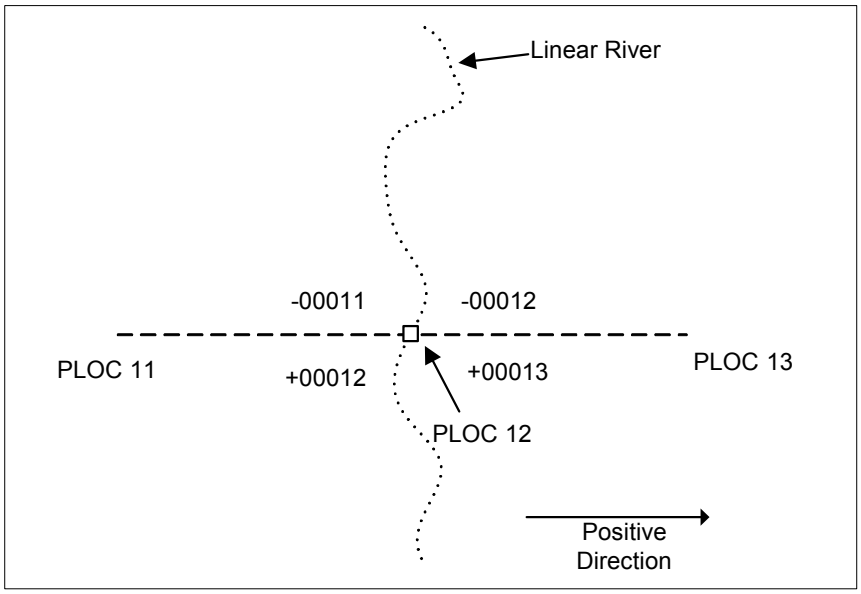


Figure H-36

H.3.5.7 Road Crossing Polygonal River

Where a road (multi-dig or bi-directional) crosses a polygonal river (or lake) internal codes are placed on the small link as indicated in *Figure H-37*.

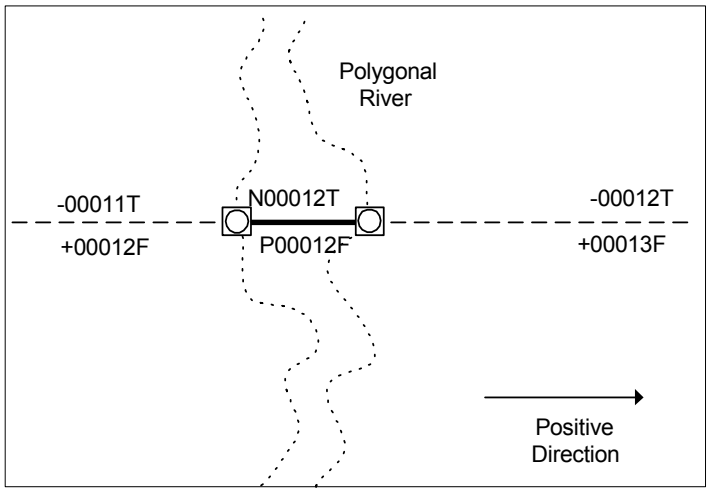


Figure H-37

H.3.5.8 Ferry Routes

Ferry Connections are treated the same as links, both internal and external codes are applied to them. The internal codes are placed on the link(s) crossing the water feature. See *Figure H-38*.

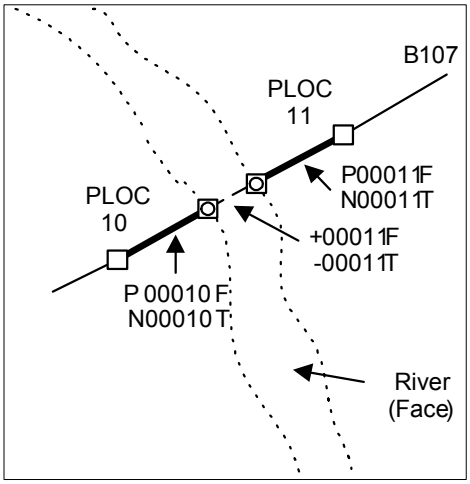


Figure H-38

In *Figure H-38*, the internal codes are applied to the link crossing the polygonal river, as there is only one PLOC.

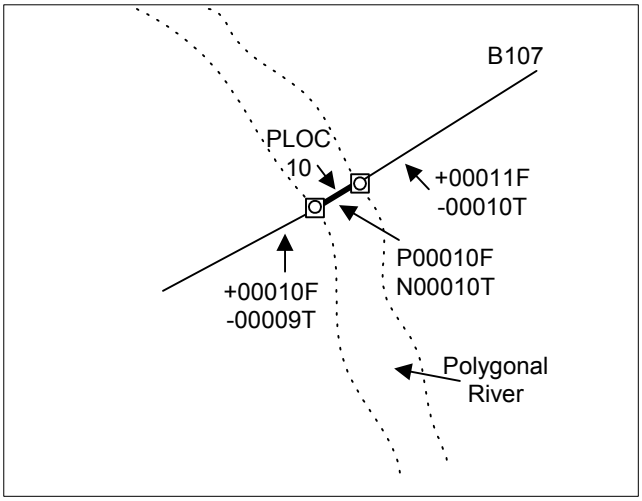


Figure H-39

H.3.5.9 Built Up Area

In *Figure H-40* the Built-up Area is the problem location. Internal codes are applied to the extent of the Built-up Area boundary.

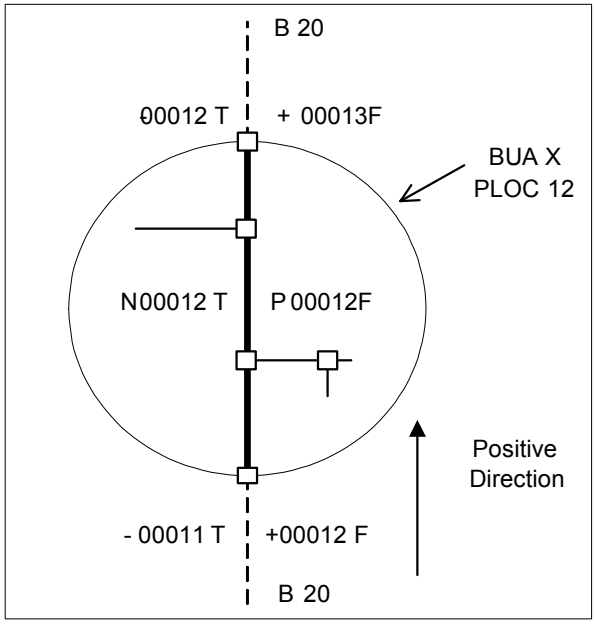


Figure H-40

In *Figure H-41*, the Linear Location is the B-20. The RDS-TMC table refers to BUA Best as the PLOC, since it is clear that there is only one junction (Green Road) that leads to the BUA Best. The internals are applied only to this junction.

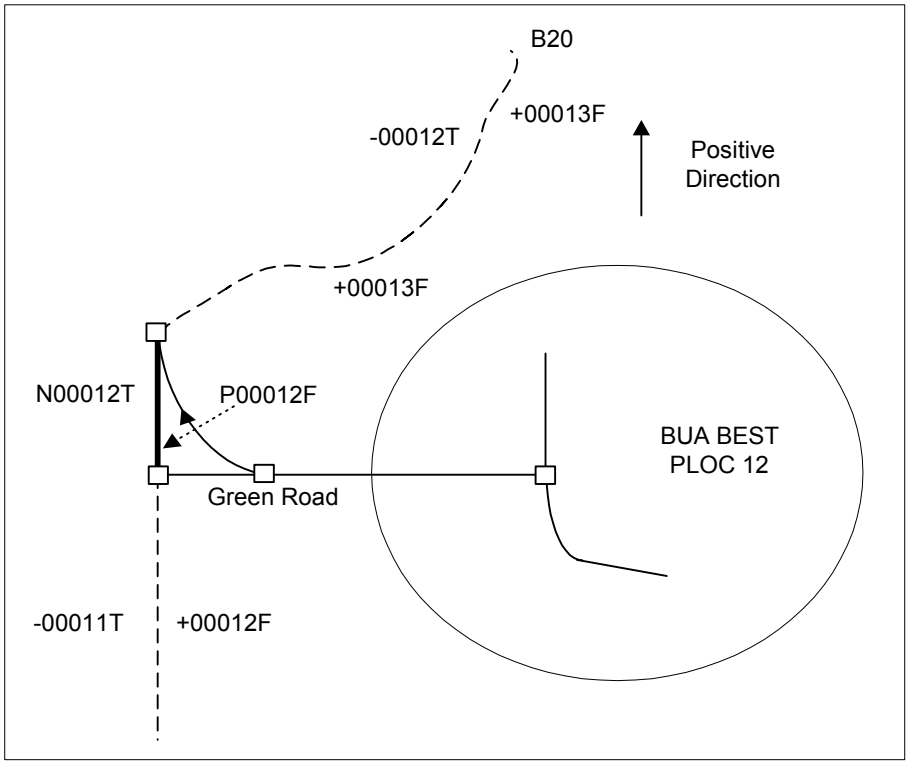


Figure H-41

In *Figure H-42*, the B20 is the Linear Location and the RDS-TMC table refers to Built-up Area X as the PLOC. Since the B20 is not running through the Built-up Area, the internals are applied between the first and last intersection of the B20 leading to the Built-up Area. The same rule applies if one intersection is referred to in the RDS table.

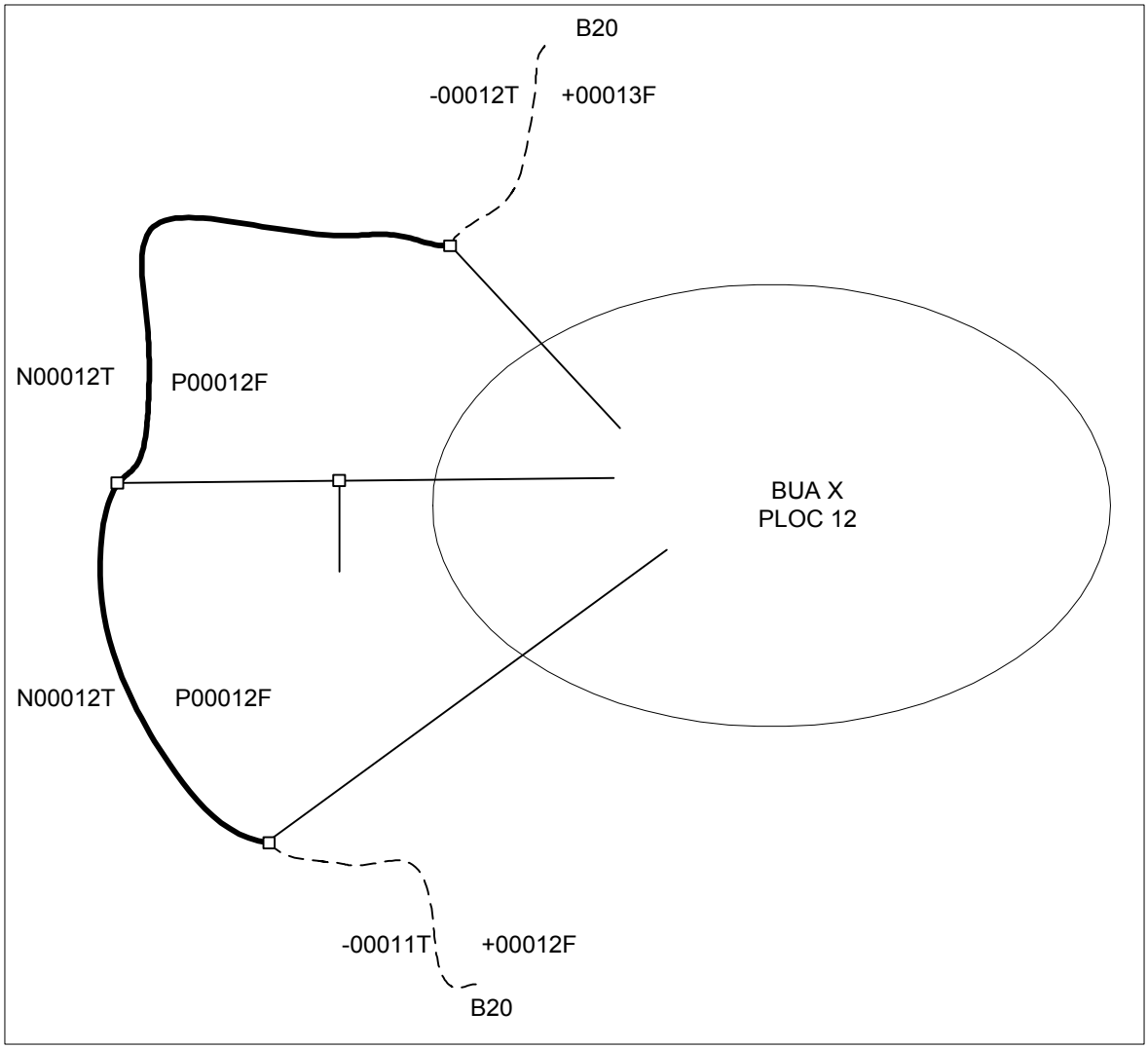


Figure H-42

In *Figure H-43*, the Linear Location is the B-20. The RDS-TMC table refers to the BUA as the PLOC. The internals are coded between the first and last junction leading to the BUA.

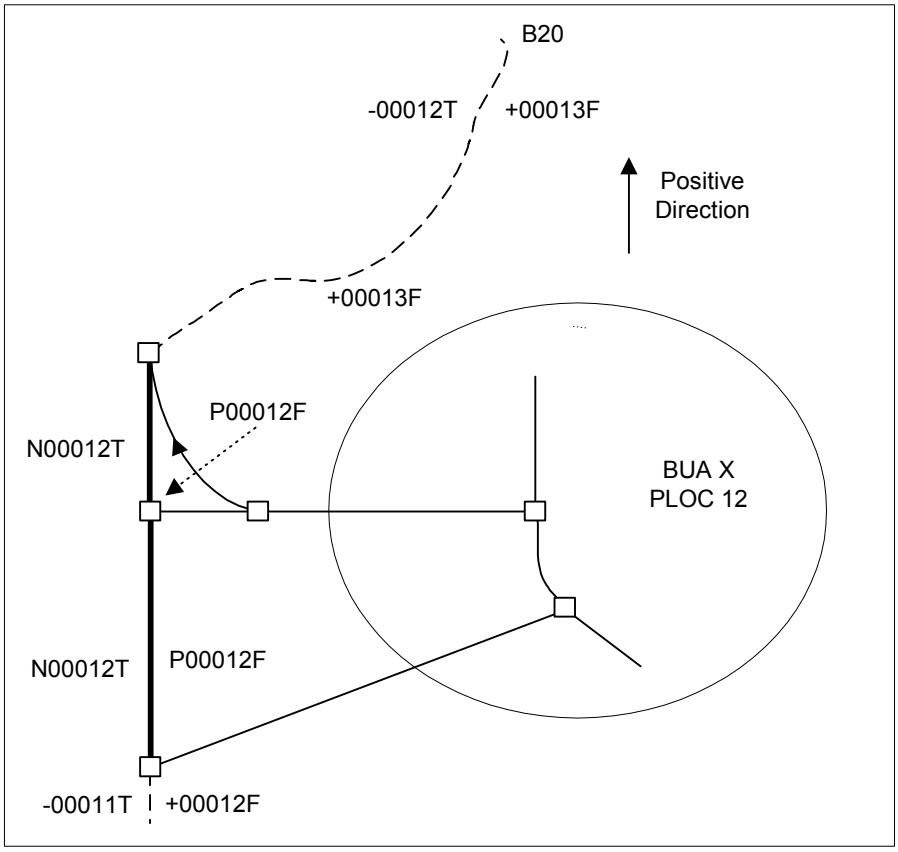

B20
-00012T
+00013F
Positive
Direction
+00013F
P00012F
N00012T
BUA X
PLOC 12
N00012T
P00012F
-00011T
+00012F

Figure H-43

H.3.6 Placement of External Codes

H.3.6.1 PLOC at Intersection

The RDS-TMC codes will follow the path that is driven. *Figure H-44* shows the B36 turning instead of going straight through the intersection. The highlighted links show the Problem Location.

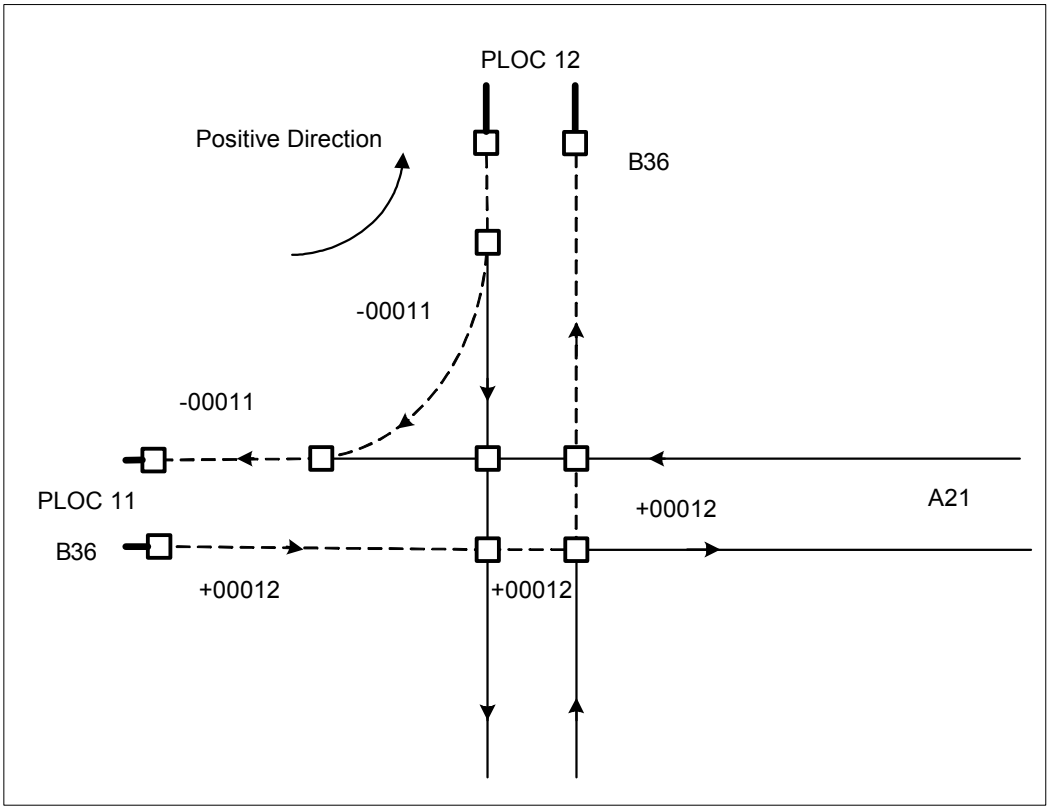


Figure H-44

H.3.6.2 Linear Location in Only One Direction

In some cases, a certain route number is only applied in one direction (one way) for a certain stretch of road. In these cases both a positive and a negative external are applied. Since only one direction is defined for applying the external, the corresponding external is applied to the logical route, reflecting the other direction of the Linear Location. See *Figure H-45*.

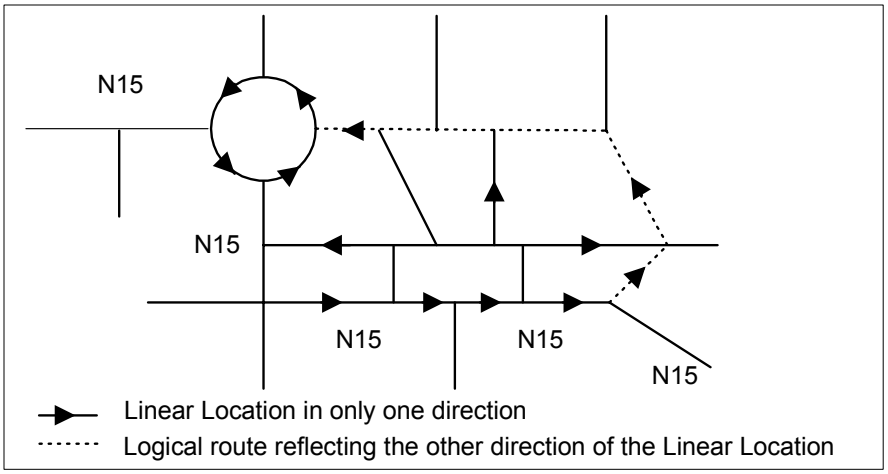


Figure H-45

(This page intentionally left blank)

Appendix I
Rules for North American Traffic

(This page intentionally left blank)

I.1 Introduction

Note: The information in this chapter applies to North American databases only.

The inclusion of traffic information in the NAVTEQ North American database allows applications to receive traffic messages and communicate this information to the driver.

The DNDC includes RDS-TMC Point Locations. A Point Location is an unambiguous location along a road that receives its own unique code - an RDS-TMC code. In North America, the government does not provide the RDS-TMC (Traffic) Table as is done in Europe. Instead, a consortium between NAVTEQ and another provider of digital map data has been created to compile the Point Location codes into a standardised table. The Traffic Table typically contains a number of columns. Codes are typically divided into main types, such as P (Junctions), L (Linear Locations), A (Areas), etc.

This appendix contains the following:

- Road Inclusion Rules
- Linear Locations
- Point Locations:
  - on Multiply Digitised Roads.
  - on Bi-directional Roads.
  - in Start and End of Linear Locations.
  - in Complex Situations.
  - when Linear Location turns.
  - at Specific features.
  - at Administrative Boundaries.
  - at Table Boundaries.
  - along ***Controlled Access*** = N.
- Traffic Location Table specification.
- Listing of NA Traffic Tables and Names.

I.2 Road Inclusion Rules

This section describes the inclusion rules for selecting roads for traffic information.

Rule: The rule applies to the following roads:

- Roads that are set to ***Controlled Access*** = Y.
- Truck, Carpool, and Reversible roads that connect the above roads. Reversible roads are roads that change direction to accommodate heavy traffic patterns. An example is I-90/I-94 through Chicago. The centre road changes direction to facilitate commuter travel.
- Numbered highways that include Interstates, U.S. and State Routes.
- Any other road that is designated important by the consortium.

  Note: While in general the inclusion of Linear Locations remains stable, the inclusion may occasionally need to be enhanced to accommodate new situations.

I.3 Linear Location

Definition: A Linear Location is a path of consecutive links along a road whose RDS-TMC codes correspond to a named road such as I-35. The extent of a Linear Location is defined in the Traffic Table.

A typical Linear Location consists of consecutive links where the locally known name may be a Route Number or a local name and this name remains consistent.

The succeeding pages describe how the extent of a location is defined. The following is the legend used for the figures:

Symbol	Definition
	Link Internal to Point Location
	Link External to Point Location
	Link with no ***RDS-TMC*** coding
	Link with ***Functional Class*** = 1-4
	Link with ***Controlled Access*** = N and Traffic Coding applied. Link is either Internal or External to Point Location.
	Node

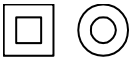
Symbol	Definition
	Shape Point
	Grade Separated Crossing at either a Node or a Shape Point
LL	Linear Location
PL	Point Location
+##### -#####	External ("+" and "-") partial ***RDS-TMC*** Code
P##### N#####	Internal ("P" and "N") partial ***RDS-TMC*** Code

Table I-1

Note:

The Direction of Road, EBU Country Code, and Location Table Number are not included in the examples. For detailed information on the ***RDS-TMC*** Feature.

I.3.1 Extent of Linear Location

Rules:

- A new Linear Location is created when crossing a Table Boundary.
- A Linear Location has exactly one starting point and one ending point.
- When more than one Linear Location is defined for a specific road and there is a gap between the end of one Linear Location and the start of another (with no other coding in between), the gap between the locations receives coding by one of the following methods:
  - One of the Linear Locations is intended to fill the gap. Two Linear Locations are linked if there is a common base name by creating an internal code where the two locations meet.

- If the base names are exactly the same, two Linear Locations are made into one Linear Location and points are added to fill the gap if necessary.
- If the base names are not the same and it is not possible to link the Linear Locations, the Linear Locations are bookended by ending one Linear Location with an internal code and beginning the next Linear Location with an internal code.

- The prefix or suffix of the road name may change along a Linear Location as long as the base name remains the same.

- Linear Locations may be coded against the direction of travel.
  - If all or part of a Linear Location is one-way, the one-way links have both the positive and negative RDS codes applied to the Location.
  - Linear Locations may exist on two separate roads (not multiply-digitised) when they share a common name, such as a route name, making them a single Linear Location rather than separate Linear Locations. See *Figure I-1*

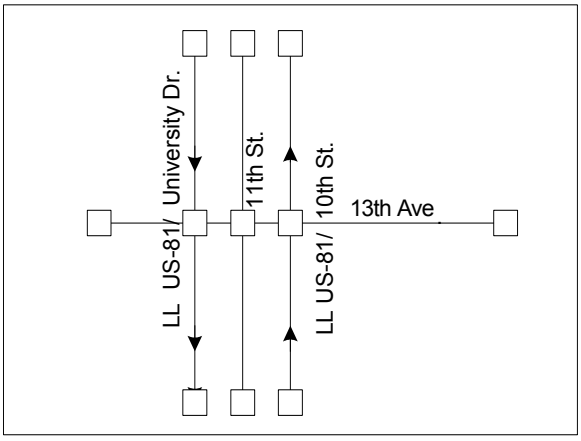


Figure I-1.

  - Linear Locations may overlap.

I.3.1.1 Ring Roads

Rules:

- For roads that form a loop around a metropolitan area, the extent of the Linear Location depends on the presence of sign direction.

- If sign direction changes on each side of the loop, four separate linked Linear Locations are created. See *Figure I-2* and *Figure I-3*.

- The preferred direction for Linear Locations on Ring Roads is clockwise.

- If the sign direction does not change or the road is generally referred to as one road, the road is coded as one Linear Location. In this case, the start point is also the end point and the first and last points should be linked.

.

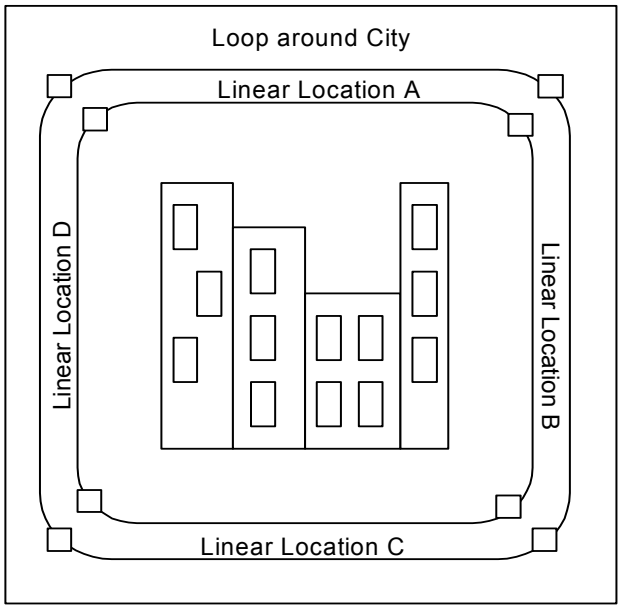


Figure I-2

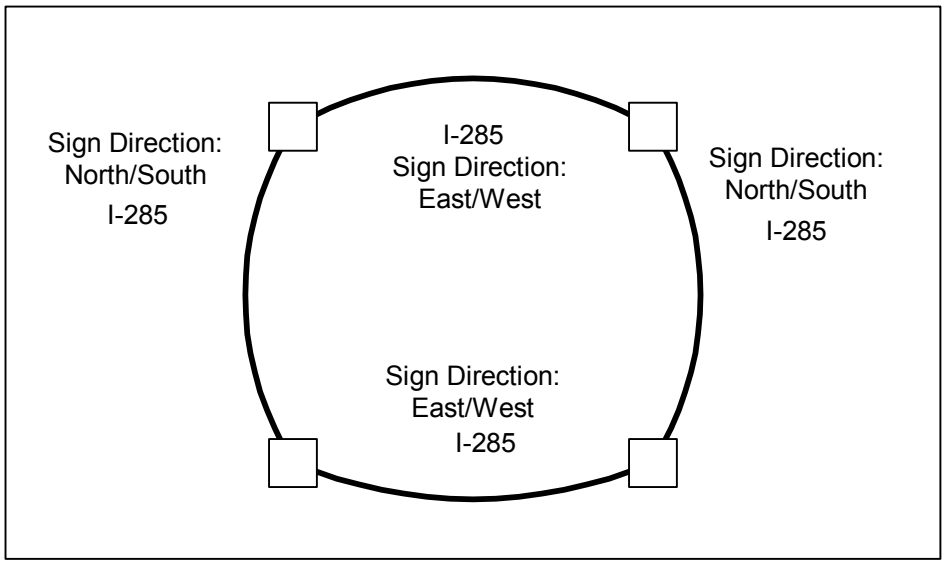


Figure I-3

I.3.1.2 Adjacent Linear Locations

Rules:

- When two Linear Locations meet at an intersection, the first Linear Location is coded to the middle of the intersection and the second Linear Location is coded from the middle of the intersection.

I.3.1.3 Overlapping Linear Locations

Rules:

- Linear Locations may overlap for a distance of 16 kilometres/10 miles or less.
- When two or more Linear Locations overlap for a distance of greater than 16 kilometres/10 miles, all except one of the Linear Locations end at the points where the overlap begins and ends.

I.3.1.4 Linking of Linear Locations

Definition:

- Linking exists when two Linear Locations, sharing a common base name, are connected with a single internal code, rather than having an internal code for the end of one Linear Location and the beginning of the other Linear Location.

Rules:

- Linking of Linear Locations and their respective Point Locations is required when one or more of the base names of the Linear Locations are the same and the road continues.
- Linear Locations with the same name that meet, but have opposing positive directions are not be linked.
- Linear Locations and Point Locations are not linked when the base names of the Linear Locations are different.

I.4 Point Location

Definition: A Point Location is a pre-defined location along a road that is assigned a unique RDS-TMC code. The code is used as a reference for the location in traffic messages.

Coding: Point Locations are represented with internal and/or external RDS-TMC codes.

Rules:

- Every non-linked Linear Location starts and ends with an internal code. Nodes are added to place the internal code if necessary. Linked Linear Locations may have one internal code where they meet, rather than an internal code for each Linear Location.

- On ***Controlled Access*** = Y roads, Point Locations have both a positive and negative internal code which are denoted by “P” and “N”, respectively in the RDS-TMC code. Nodes are added if necessary to place the internal codes.

- On ***Controlled Access*** = N roads, Point Locations have both a positive and negative internal code denoted by “P” and “N” in the following situations:

  - At locations with existing intersection geometry such as a ***Roundabout***, links with ***Intersection Internal***, ***Manoeuvre***, etc.

    Note: Nodes are not added to place internal codes on ***Controlled Access*** = N roads when there is no intersection geometry present (in most cases, this applies to single-node intersections between two singly digitised roads and intersections between a singly digitised road and a multiply digitised road).

- Only RDS codes from a single Linear Location are applied to a link except in cases of overlapping Linear Locations.

- Internal codes for two different Point Locations cannot share the same nodes. External codes exist between the internal codes of each Point Location. The only exception is when the beginning internal code of one Linear Location and the ending internal code of the other Linear Location touch because the Linear Locations are adjacent.

I.4.1 Inclusion of Point Locations

Rules: Point Locations exist along a Linear Location at least every 16 kilometres/10 miles at the following features:

- ***Functional Class*** = 1 - 3 roads
- Specified ***Functional Class*** = 4 roads
  - Point Locations at ***Functional Class*** = 4 roads that are more than 1.6 kilometres/1 mile from any other Point Location are included.
- Specified ***Functional Class*** = 5 roads
  - Point Locations at ***Functional Class*** = 5 roads if existing locations are more than 3.2 kilometres/2 miles apart are included. These are at least 600m from another Point Location.
- Named Tunnels and Bridges (in some cases there may be multiple Point Locations for a single tunnel or bridge)
- Toll Booths (except Toll booths on exit ramps)
- Named Rest Areas
- The beginning and end of all non-linked Linear Locations
- Administrative Boundaries (Level 1 & 2)
- End of Table Boundaries
- All Ramp interchanges ***Functional Class*** = 1 to 5 on roads with ***Controlled Access*** = Y
- Connections with express, reversible, and carpool roads on roads with ***Controlled Access*** = Y
- Additional locations are included as necessary in cases where points are greater than 16 kilometres/10 miles apart and there are no other locations that meet the inclusion criteria. They are unambiguous, and may include:
  - Railroads
  - Rivers
  - ***Functional Class*** = 5 roads

I.4.2 Point Locations on Multiply Digitised Roads

I.4.2.1 Multiply Digitised Road with Ramps on Both Sides

Rules:

- Internal RDS-TMC codes are located between the entrance and exit ramps on each side of the multiply-digitised road, as shown in *Figure I-4* and *Figure I-5*.

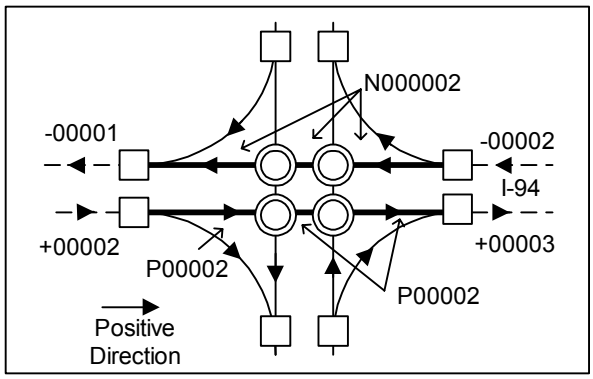


Figure I-4

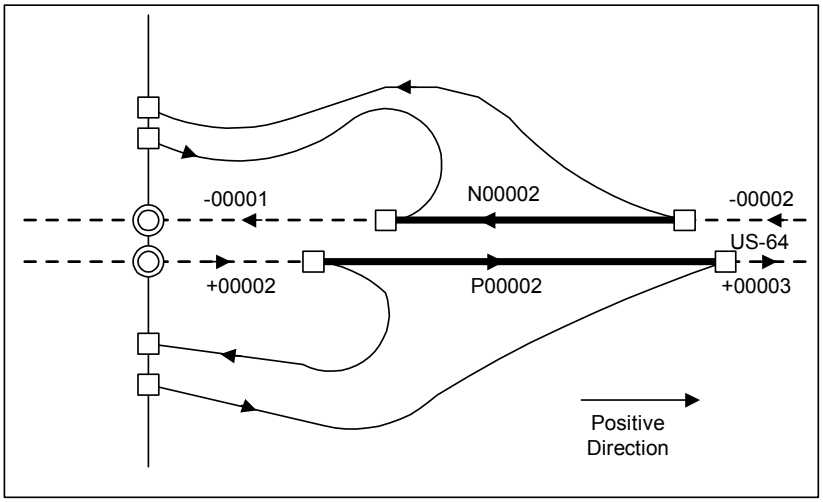


Figure I-5

I.4.2.2 Multiply Digitised Road with only One Ramp

Rules:

- Internal RDS-TMC codes are located between the 'exit' and 'entrance' ramps. In cases where only one exit or one entrance ramp exists, the following is applied:
  - Only an exit ramp: Internal code is placed after the exit ramp
  - Only an entrance ramp: Internal code is placed *before* the entrance ramp. See *Figure I-6*.

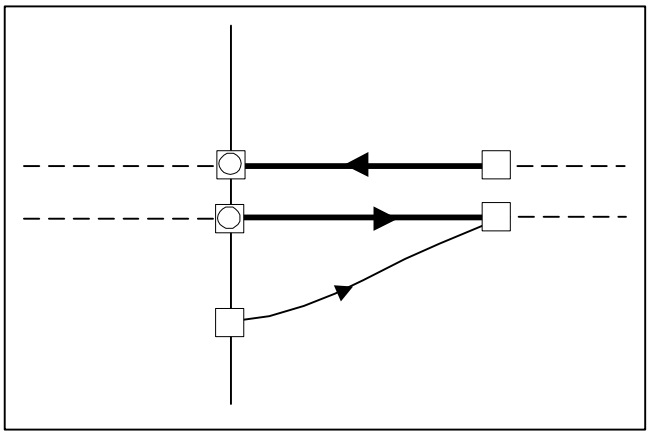


Figure I-6

I.4.2.3 Multiply Digitised Road with only One Ramp on Either Side

Rules:

- The internal code is located between the start of the ramp and the logical “end” point of the Point Location. Nodes are added to limit the extent of the Point Location if necessary. The internal code generally ends at the crossing road. See *Figure I-7.*

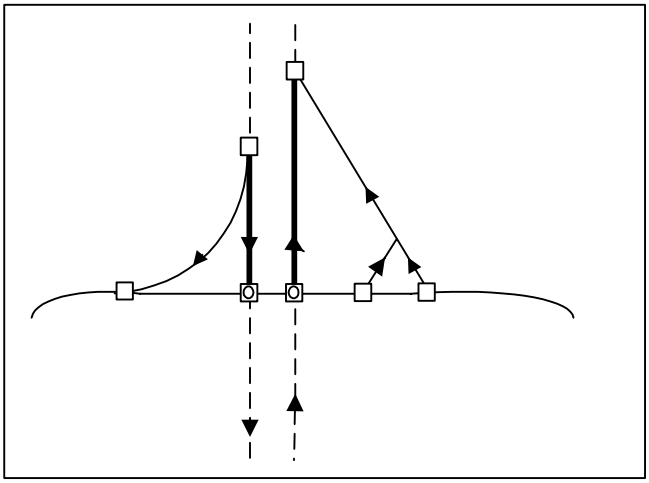


Figure I-7

I.4.2.4 Multiply Digitised Road with Three Ramps

Rules:

- In cases where two ramps exist on one side of the road, and the other side has one ramp (exit or entrance), the extent of the Point Location on the side with the single ramp is limited as shown in *Figure I-8*.

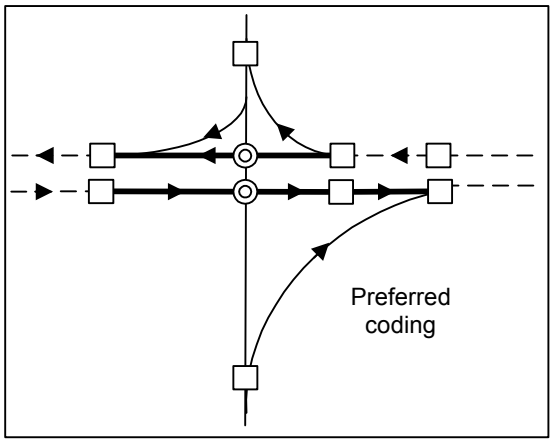


Figure I-8

- Although the coding in *Figure I-9* is not incorrect, the coding in *Figure I-8* is the preferred way of coding these situations. This coding better reflects the actual Point Location.

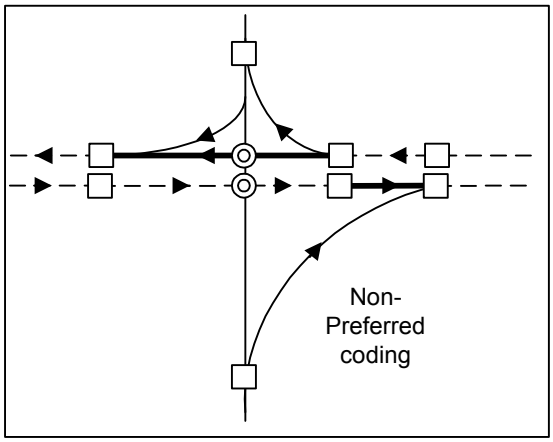


Figure I-9

I.4.2.5 Multiply Digitised Roads with Intersection Internals

Rules:

- Internal codes are applied to links which are internal to the intersection. In this case apply the internal codes on the links that are ***Intersection Internal*** = Y***.*** See *Figure I-10*.

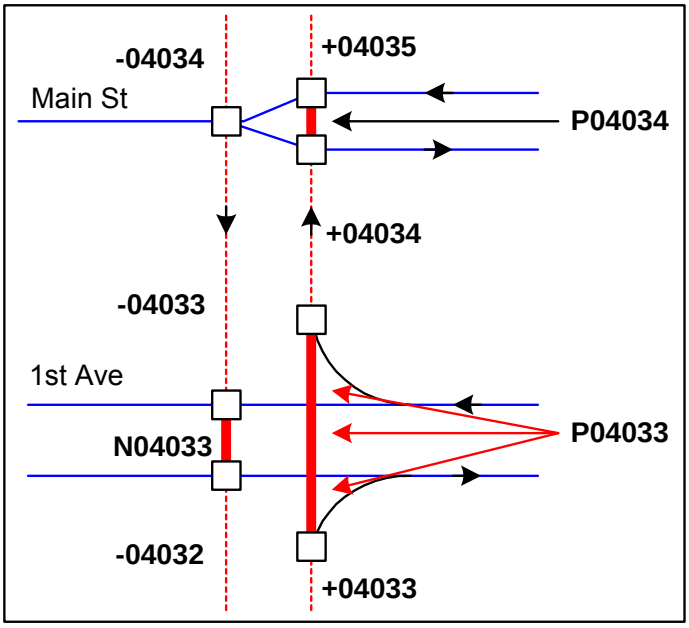


Figure I-10

Note: N04034 is not included in the database.

I.4.3 Point Locations on Bi-Directional Roads

Rules:

- *Figure I-11* shows how to add internal codes on bi-directional roads.
  - Nodes are not added in order to include internal codes when intersection geometry does not exist. See *Figure I-11*, *diagram 2.*

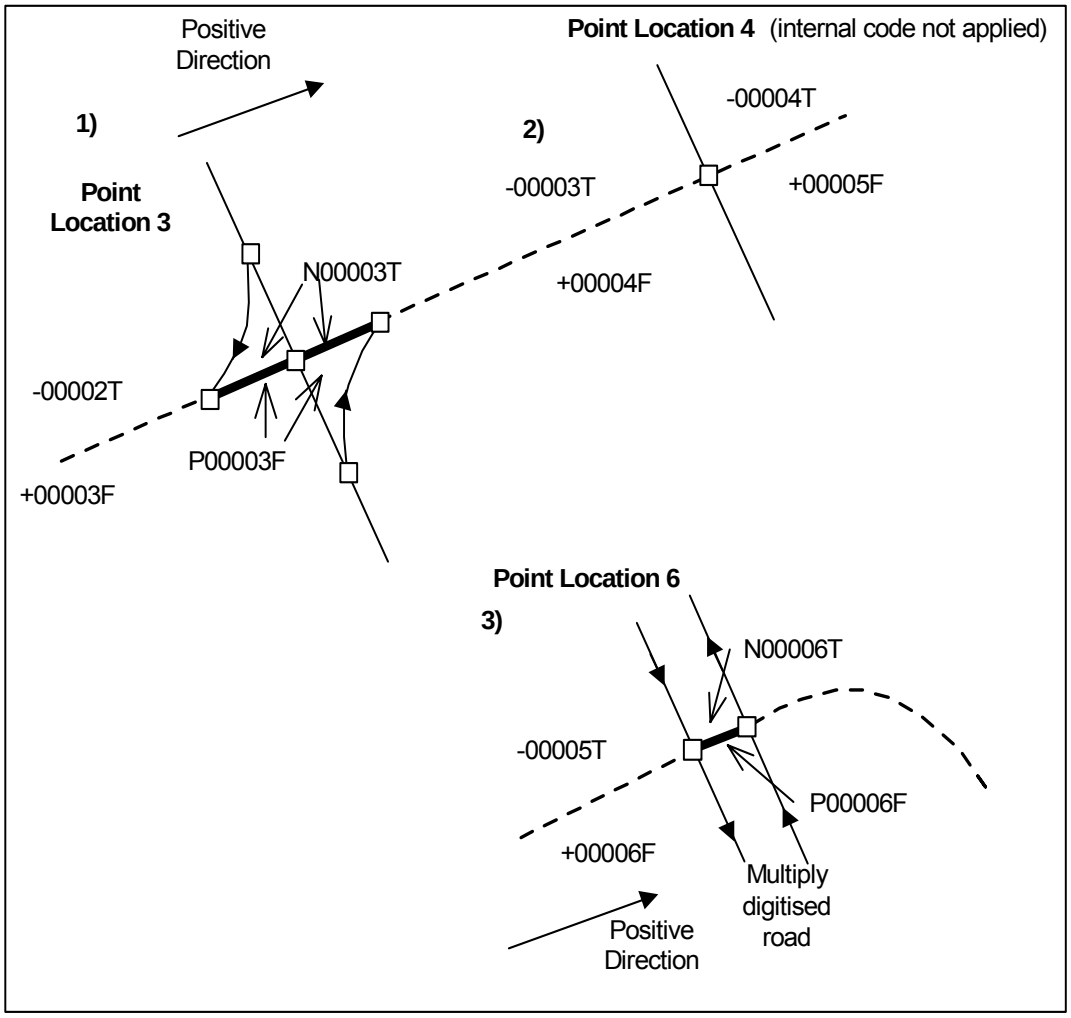


Figure I-11

I.4.3.1 Offset Roads as Point Location

Rules:

- When the Linear Location is offset at an intersection, the internals are placed on the link between the offset roads. See *Figure I-12* where “Main Road” is the Linear Location.

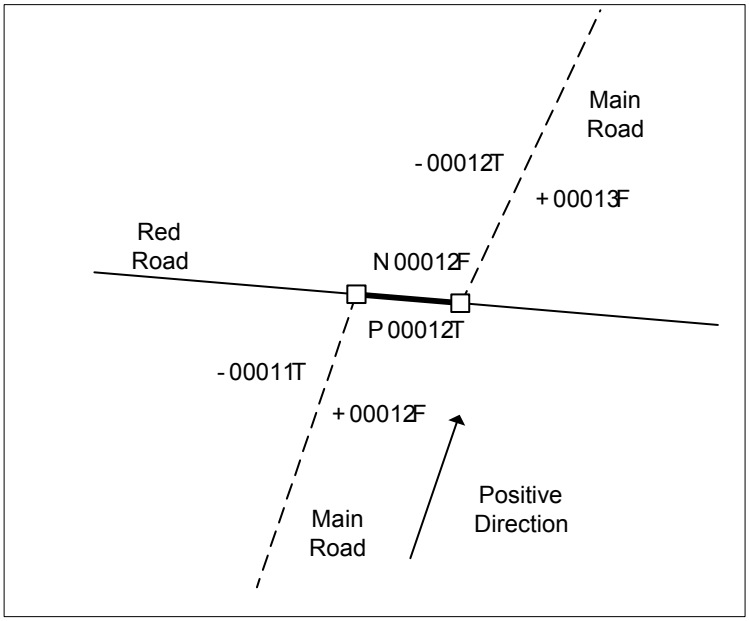


Figure I-12

- If the offset is greater than 300 metres or there are intervening roads between the offset roads of the Linear Location, two Point Locations are applied, one at each intersection with the crossing road. See *Figure I-13*.

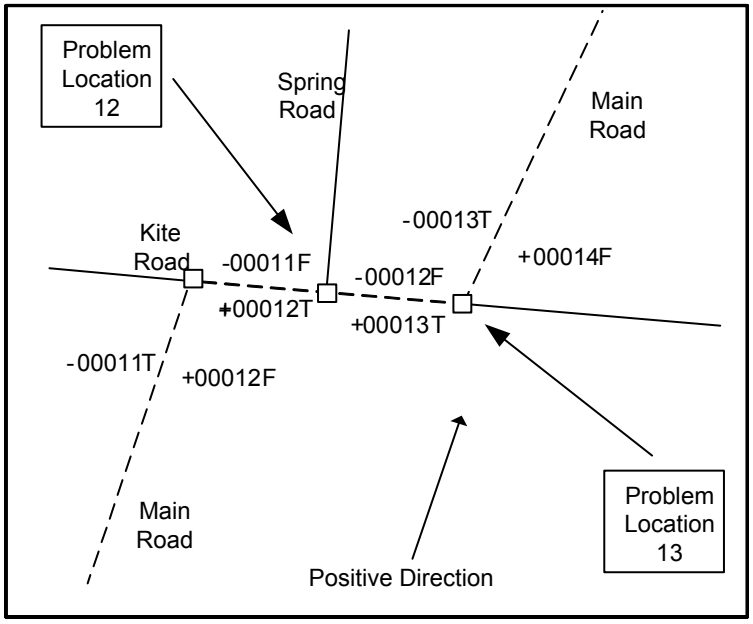


Figure I-13

I.4.3.2 Bi-Directional Roads with Ramps on Both Sides

Rules:

- Internal codes are added on all the links between the outer ramp links of the junction. See *Figure I-14*.

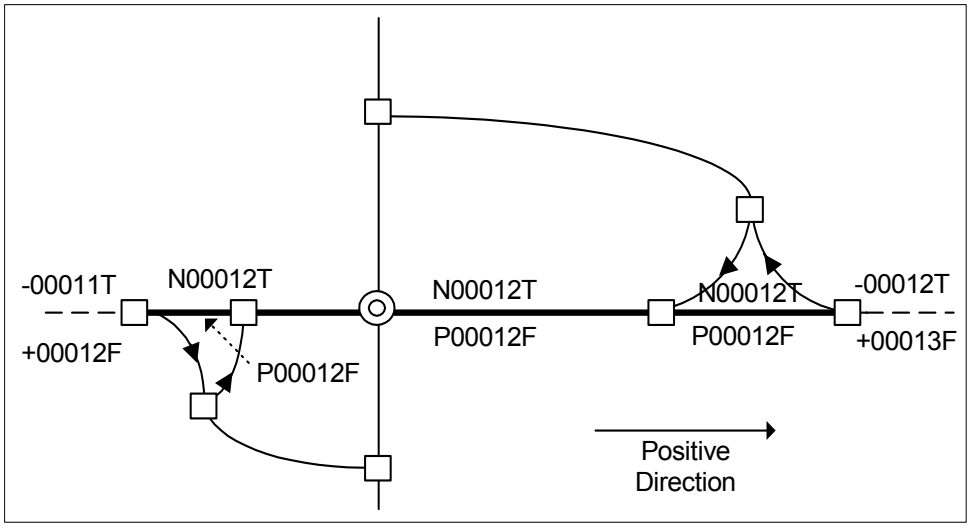


Figure I-14

- When two ramps are present and do not meet at the same node, the internal code is located between the two ramps. See *Figure I-15*.

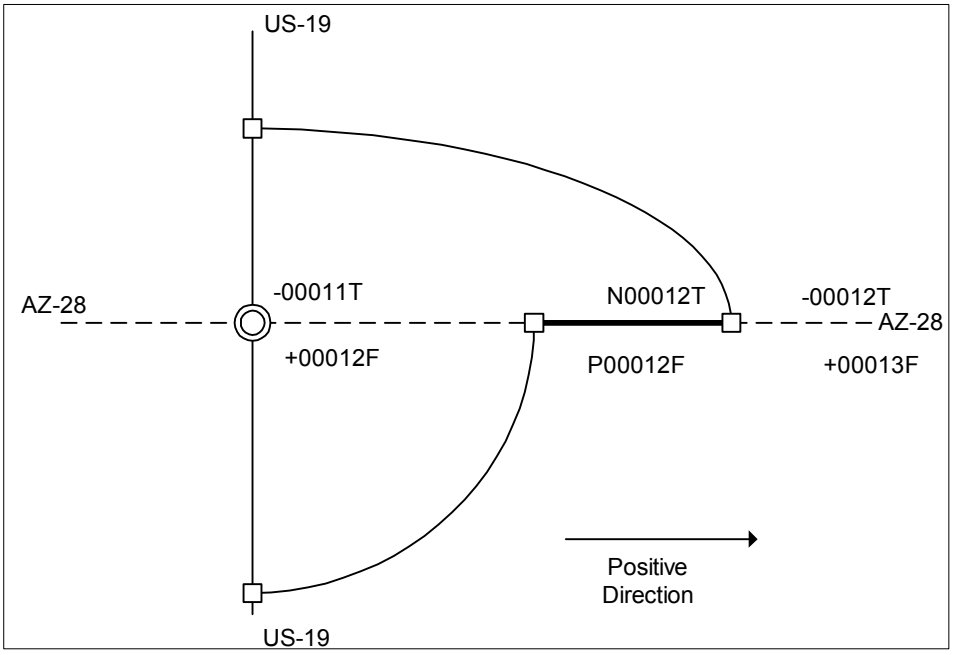


Figure I-15

I.4.4 Point Locations at the Start or End of a Linear Location

I.4.4.1 At the Start/End of a Multiply Digitised Road

Rules:

- If the start or end of the Linear Location is a multiply digitised road and the road geometry does not continue, the internal codes are applied as shown in *Figure I-16*. A node is added if there are no existing nodes available within 50 metres.

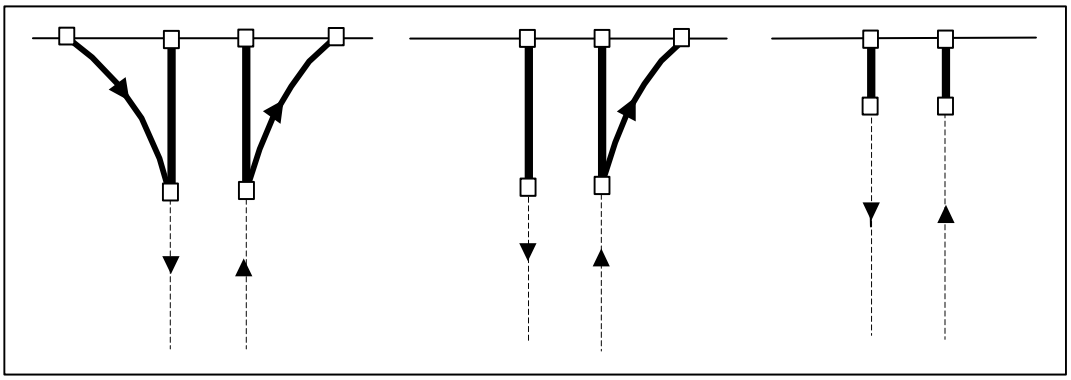


Figure I-16

I.4.4.2 At the Start/End of a Singly Digitised Road

Rules:

- If the start or end of the Linear Location is a singly digitised road and the road geometry does not continue, the internal codes are applied as shown in *Figure I-17*. A node is added if there are no existing nodes available within 50 meters.

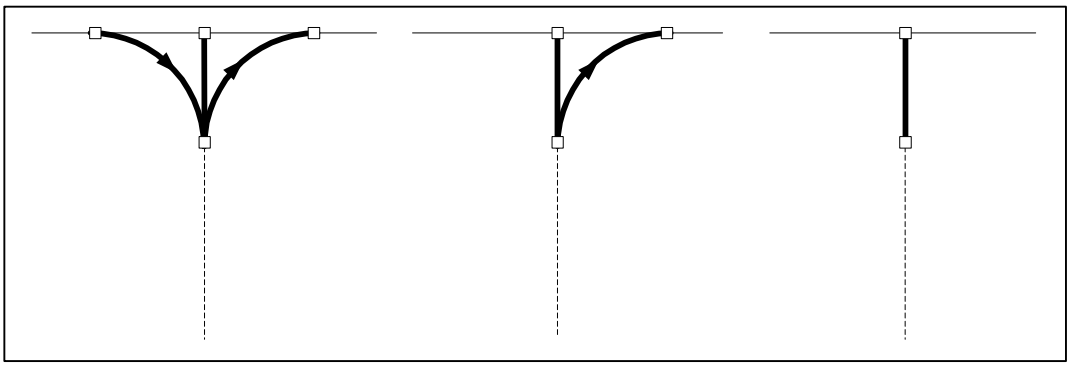


Figure I-17

I.4.4.3 At the Start/End of a Roundabout

Rules:

- In cases where a roundabout is the start or end of the Linear Location, the roundabout is split in half by dropping a node. The positive internal is applied on one side of the roundabout and the negative internal on the other side, depending on the positive direction of the Linear Location. See *Figure I-18*, *diagram A*. In cases where an existing node can be used, this node is reused to split the roundabout. See *Figure I-18*, *diagram B*.

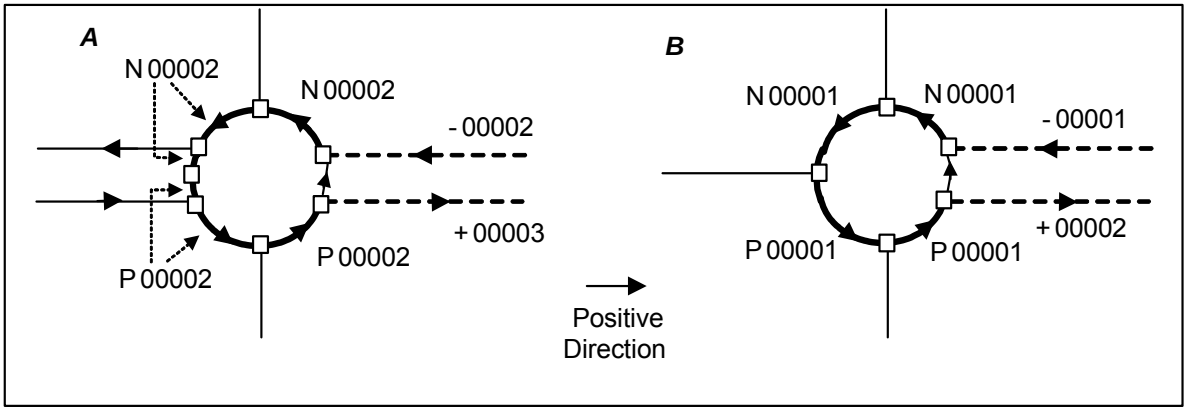


Figure I-18

I.4.4.4 End of Linear Location with Highway-to-Highway Connectors

Rules:

- Internal codes are not applied to ramps when the Point Location is the start or end of the Linear Location and the road geometry continues. See *Figure I-19*.

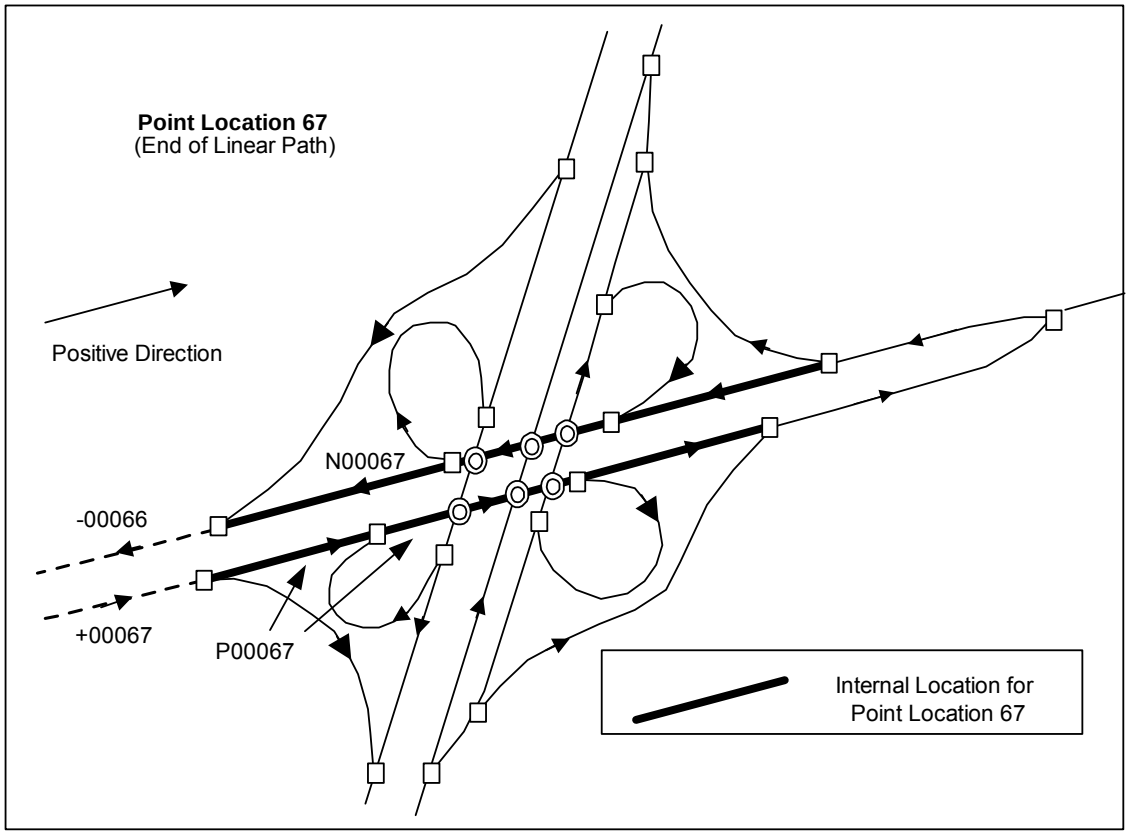


Figure I-19

- Internal codes are only applied to ramps when the road ends with a T-junction. The internal code is only applied to the ramps and road geometry that is part of the Linear Location coded. See *Figure I-20*. The highlighted links show the Point Location of the end of the Linear Location on US-10.

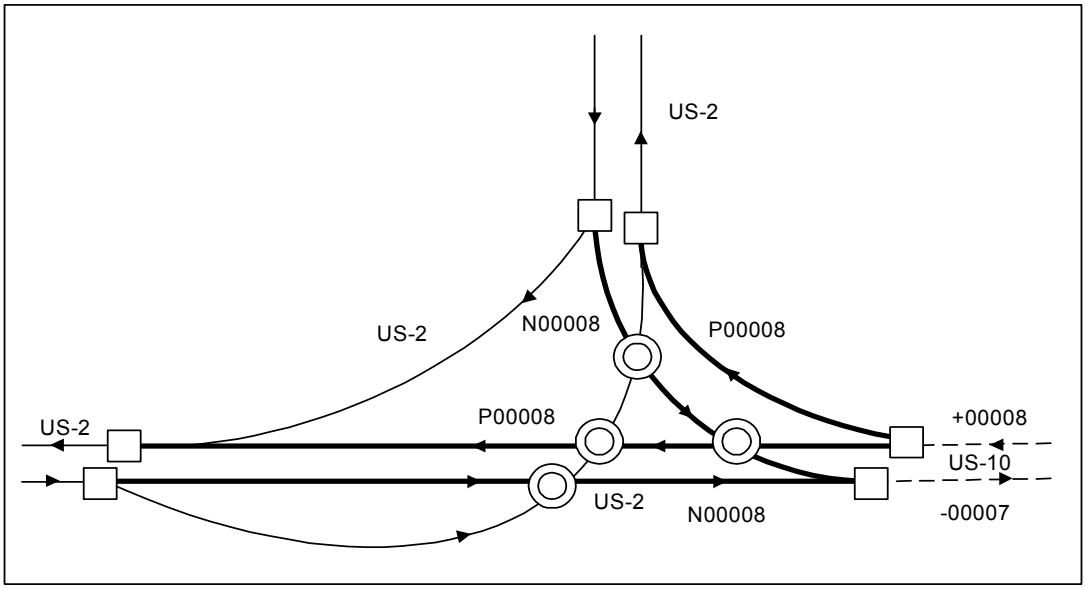


Figure I-20

- Internal codes are applied to ramps when there is a highway-to-highway connection and it is unclear where one road ends and the other begins. See *Figure I-21*.

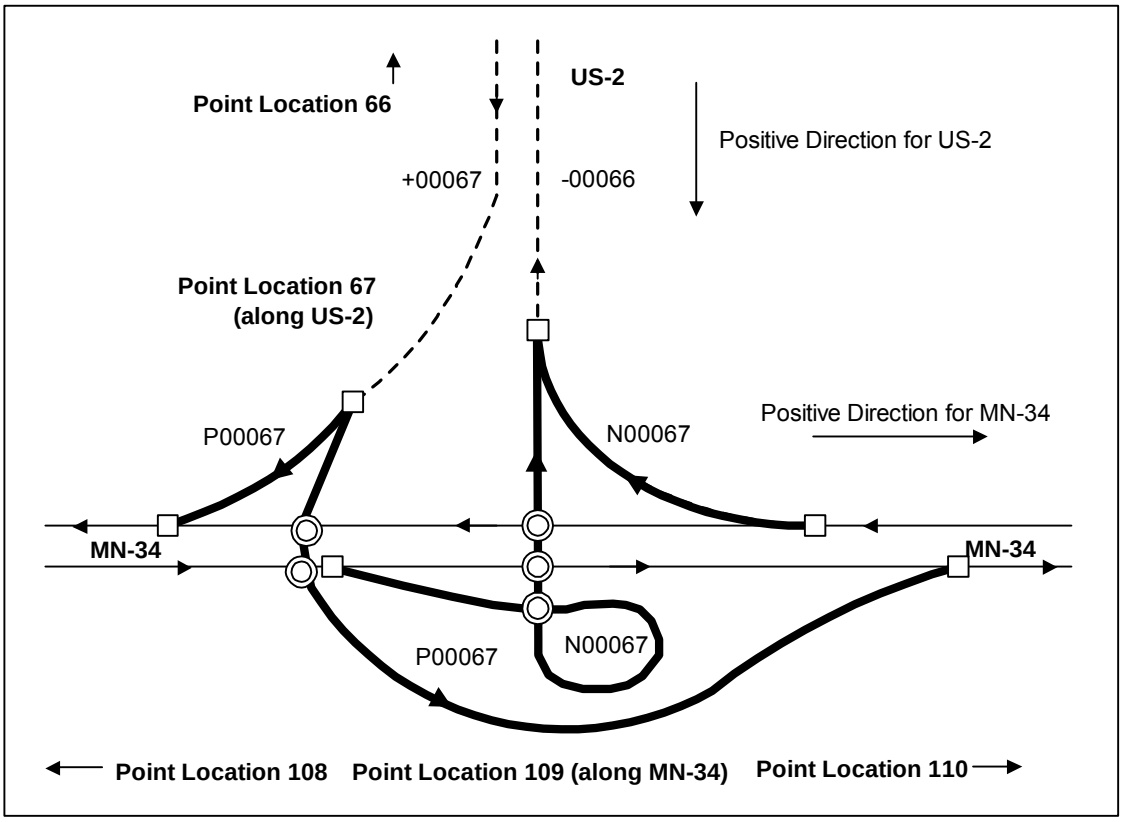


Figure I-21

I.4.4.5 End of Linear Location on a Multiply Digitised Road where Road Geometry Continues

Rules:

- Point Location 67 is the last code along CA-10. Internals are coded as indicated in *Figure I-22*. The ramps are not coded in this situation.

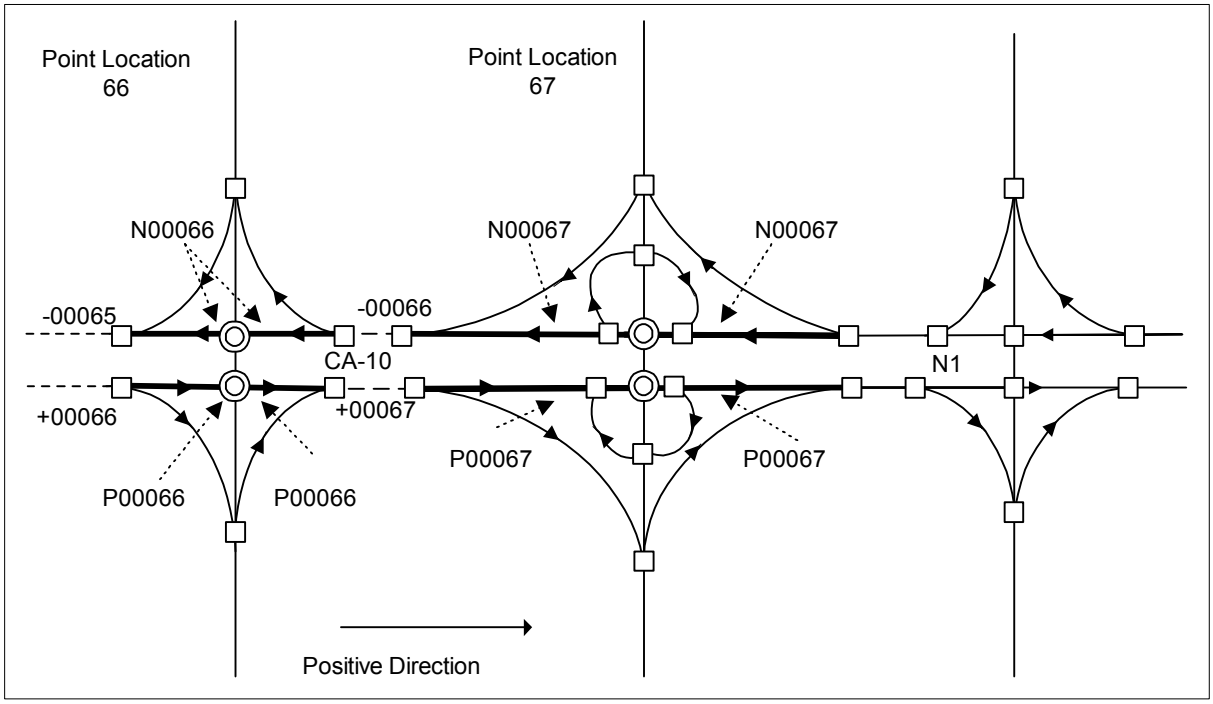


Figure I-22

I.4.4.6 End of Linear Location on a Multiply Digitised Road where Road Geometry Ends

Rules:

- When the road geometry of the Linear Location ends, the internals are coded on the main road.

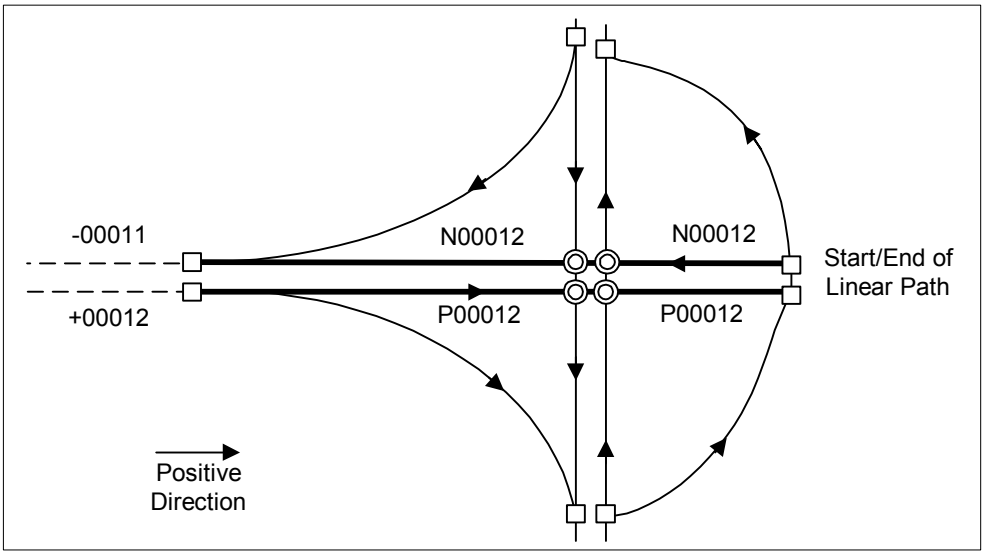


Figure I-23

I.4.4.7 End of Linear Location on a Singly Digitised Road where Road Geometry Continues

Rules:

- Point Location 87 is the last code along US-12. Internals are coded as indicated in *Figure I-24*. The ramps are not coded in this situation.

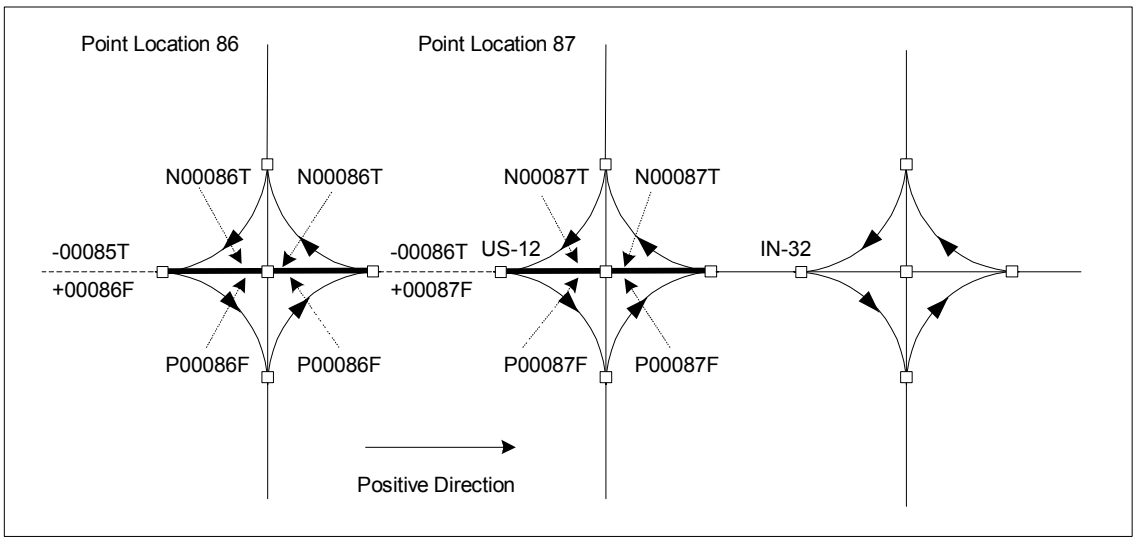


Figure I-24

I.4.5 Placement of Internal Codes in Complex Situations

I.4.5.1 Placement of Internal Codes when Linear Location Turns

Rules:

- *Figure I-25* shows the I-76 turning instead of going straight through the junction. The internal codes are applied to the road and ramp links that are part of the Linear Location (i.e. I-76).

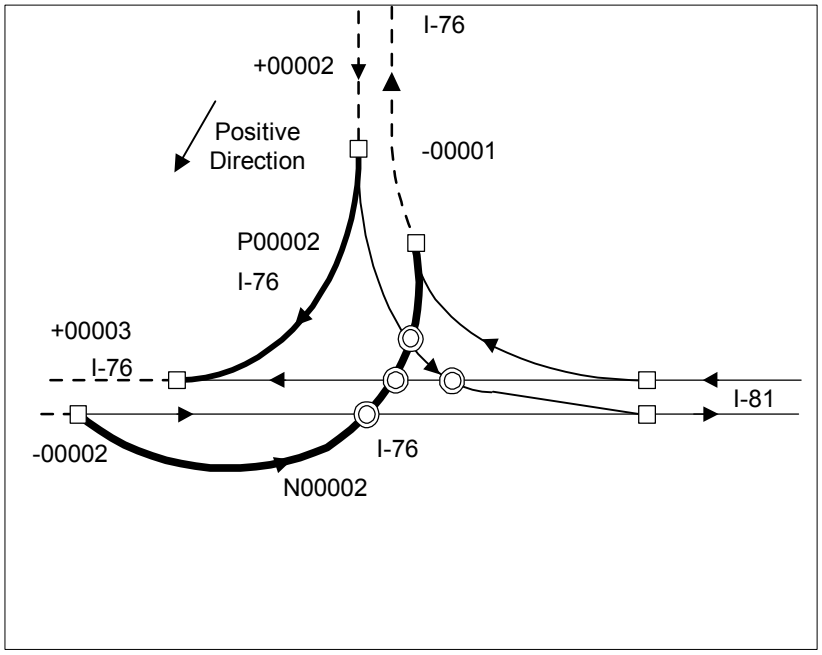


Figure I-25

- The Linear Location follows the path that is driven. *Figure I-26* shows US-56 turning instead of going straight through the intersection. Internal codes are placed on the turn lane because that is the driving path the car would follow.

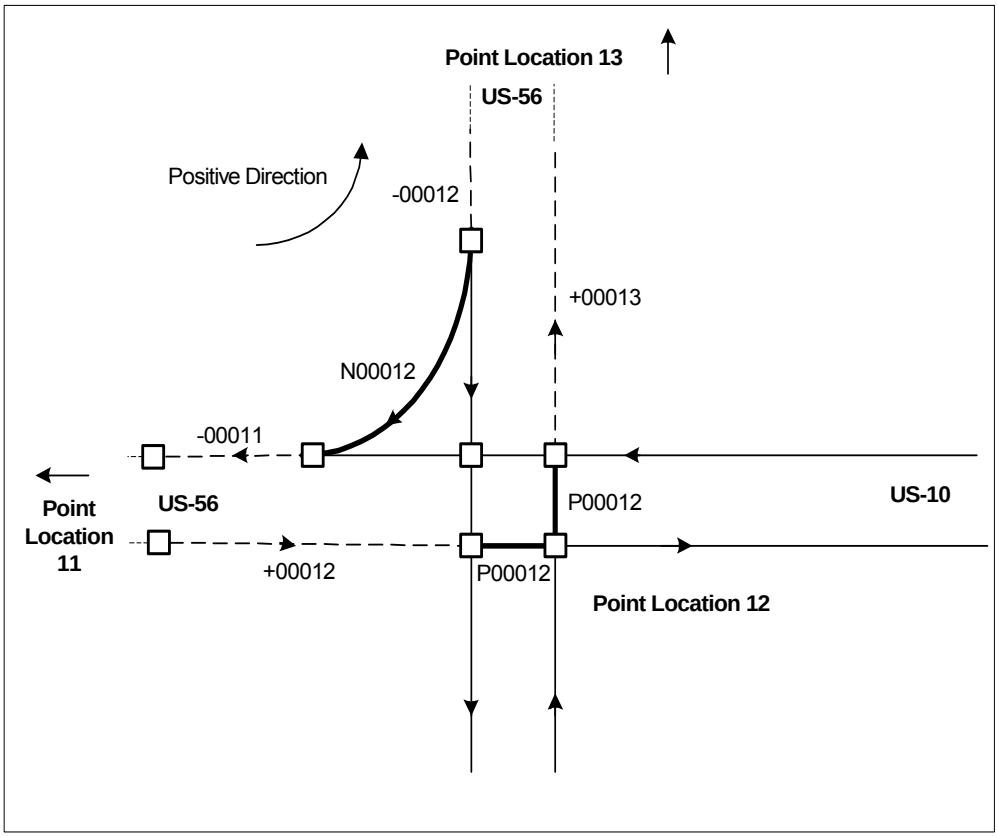


Figure I-26

- The Linear Location follows the path that is driven. Internal and external codes are applied as in *Figure I-27* and *Figure I-28* when the Linear Location continues over ramps.

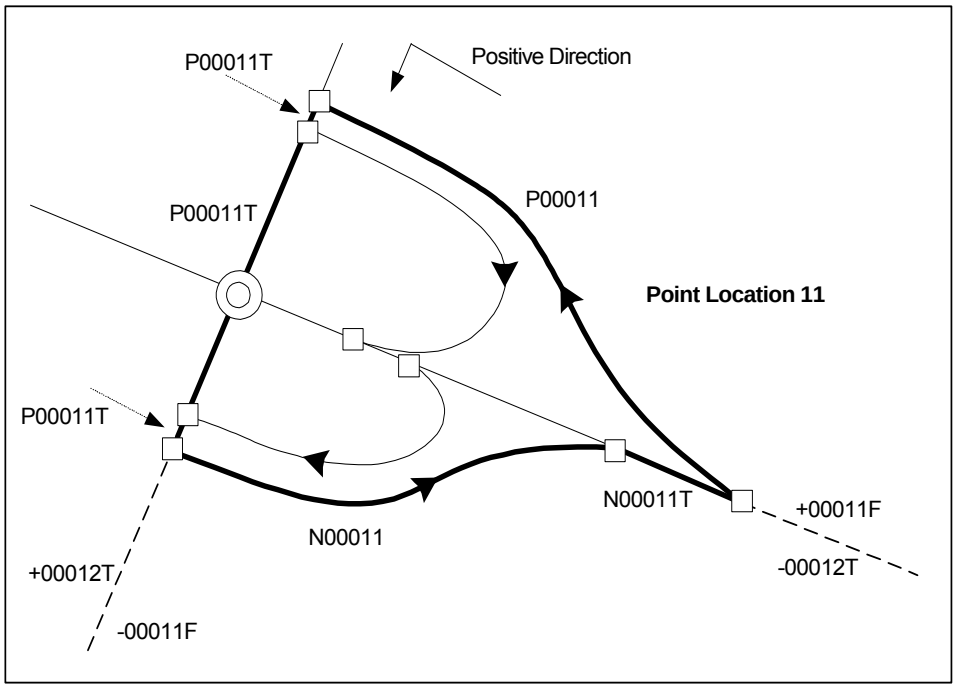


Figure I-27

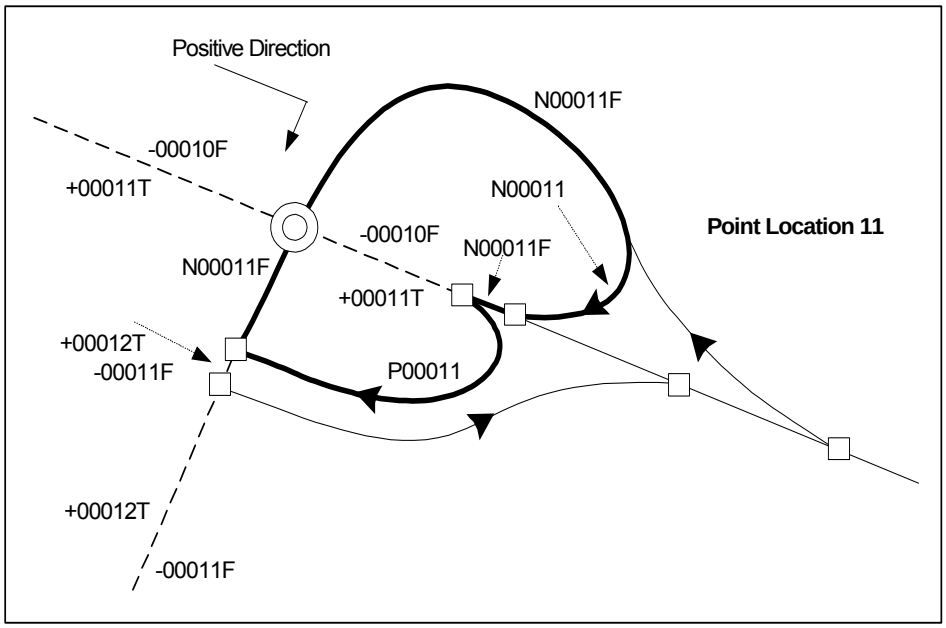


Figure I-28

I.4.5.2 Crossing at Grade with One Turn Lane

Rules:

- Only one internal code is applied when a multiply digitised road is crossing at grade and only one turn lane exists. If additional nodes exist on the opposing side of the multiply digitised road, an internal code on the opposite side is not included. See *Figure I-29*.

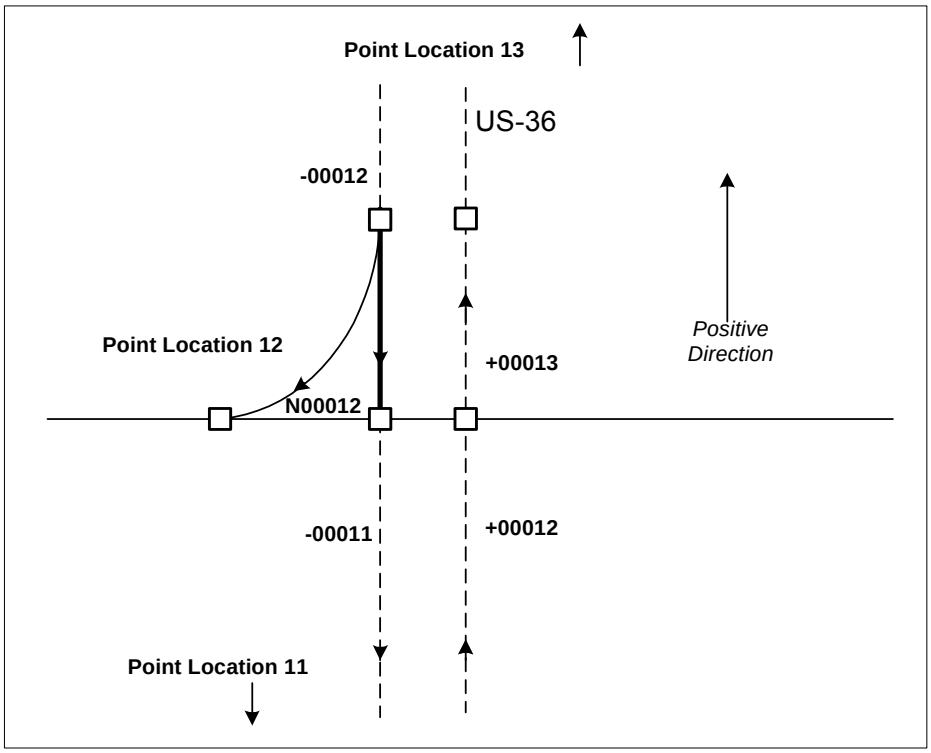


Figure I-29

I.4.6 Placement of External Codes in Complex Situations

I.4.6.1 No Point Location at Intersection

Rules:

- The RDS-TMC codes follows the path that is driven. *Figure I-30* below shows KS-36 turning instead of going straight through the intersection.

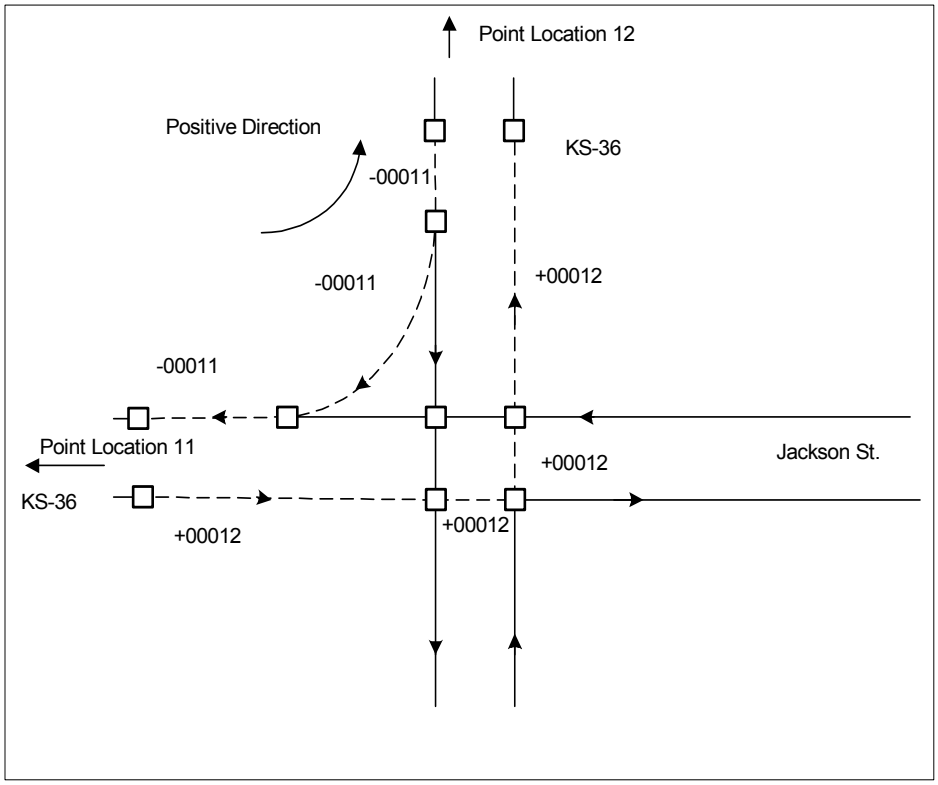


Figure I-30

I.4.7 Point Locations at Specific Features

I.4.7.1 Bridge/Tunnel/Ferry Route

Rules:

- Internal codes are applied to bridges, tunnels and ferry routes on all links that have ***Bridge*** = Y, ***Tunnel*** = Y or ***Ferry*** = Y, as shown in *Figure I-31*. When a bridge, tunnel or ferry is longer than 1/2 mile (800 metres), one Point Location is coded at each end of the feature. See *Figure I-32*.

- If the ends of a bridge, tunnel, or ferry are commonly referred to independently in traffic reports, such as “North Tower of Spencer Bridge” or “South Tower of Spencer Bridge,” two Point Locations may have been added.

- Multiple Point Locations may be required if the midpoint of a bridge, tunnel, or ferry is also referred to during traffic reports.

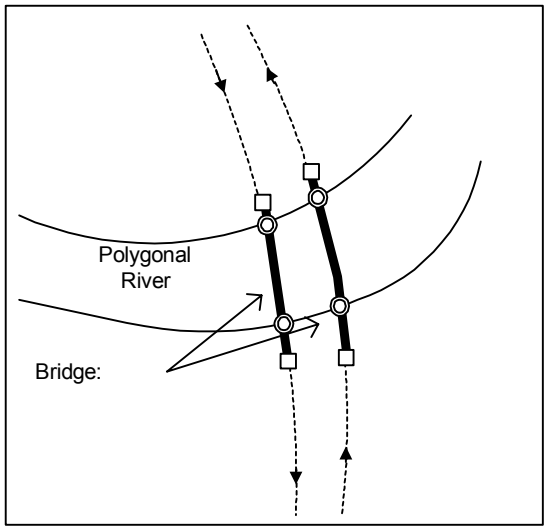


Figure I-31

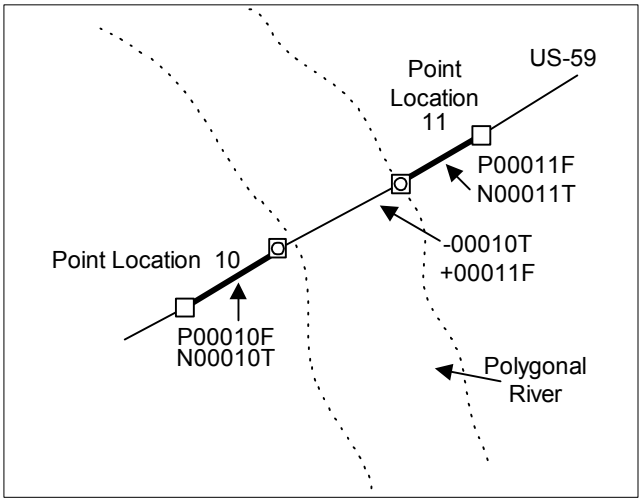


Figure I-32

I.4.7.2 HOV Lanes

Rules:

- For HOV roads that are Linear Locations, Point Locations are included which correspond to the main road, even if the Point Location is not accessible via the HOV lane. See *Figure I-33*.

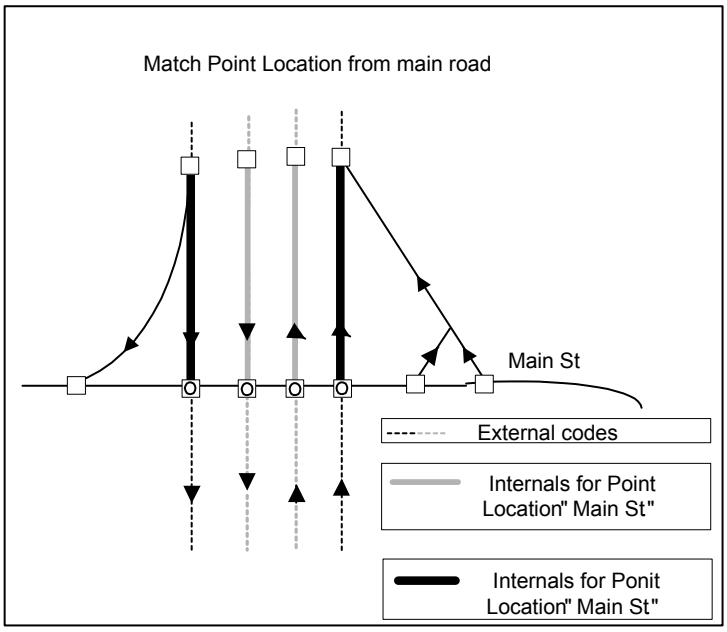


Figure I-33

I.4.7.3 Parallel Ramps along Multiply Digitised Roads

Rules:

- When parallel ramps exist along a multiply digitised road and several Point Locations exist within the extent of the parallel ramps, nodes are dropped to apply internal codes for the Point Locations. See *Figure I-34*.

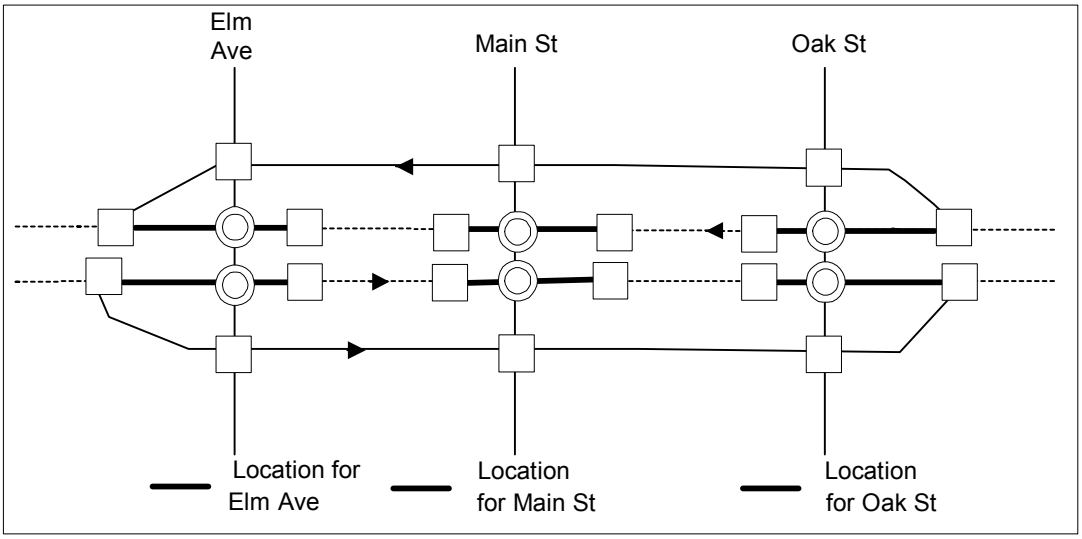


Figure I-34

I.4.7.4 Rest Area

Rules:

- Internal codes are applied to named rest areas as shown in *Figure I-35* and *Figure I-36*.

- If a Point Location exists for a rest area along only one side of a multiply digitised road, opposing nodes are created on the opposite side of the road and the appropriate internal code is applied to those links, as shown in *Figure I-35*.

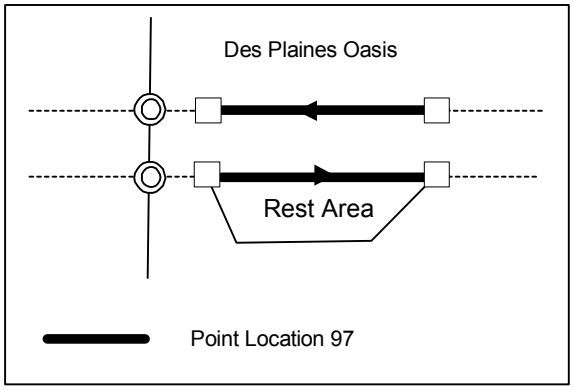


Figure I-35

- If the rest area exists on both sides of the multiply digitised road, the internal codes are placed on the links interior to the rest area on each side. See *Figure I-36*.

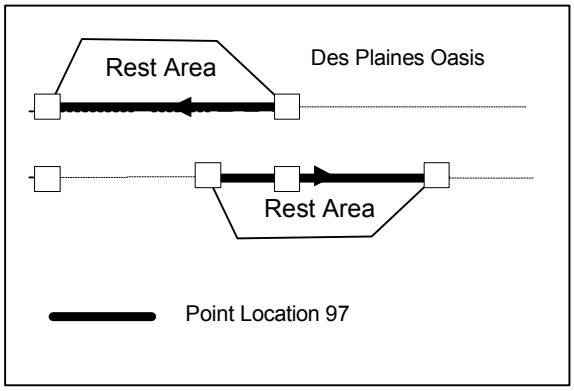


Figure I-36

I.4.7.5 Roundabout

Rules:

- Only the positive and negative internal codes are coded along the 'outside' links of the roundabout. See *Figure I-37.*

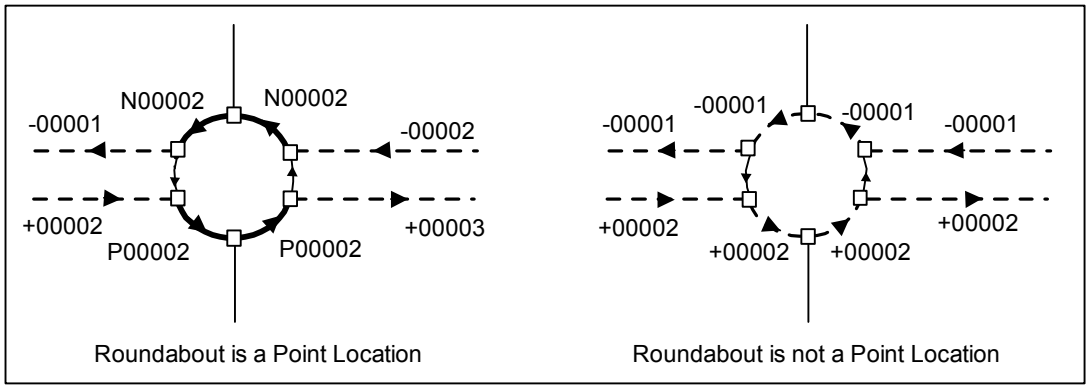


Figure I-37

- In *Figure I-38* the roundabout is a Point Location and the Linear Location continues from the south to the north-east. The positive and negative internal codes are applied to the roundabout following the driving path. The internal codes are applied to the ramps.

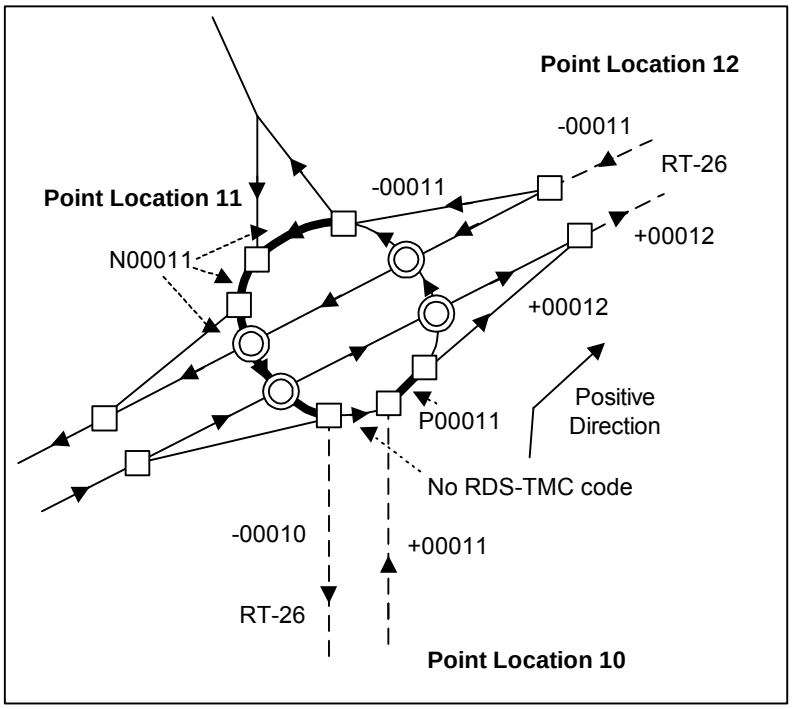


Figure I-38

I.4.7.6 Toll Booth

Rules:

- Internal codes are applied to Toll Booth areas as shown in *Figure I-39*.

.

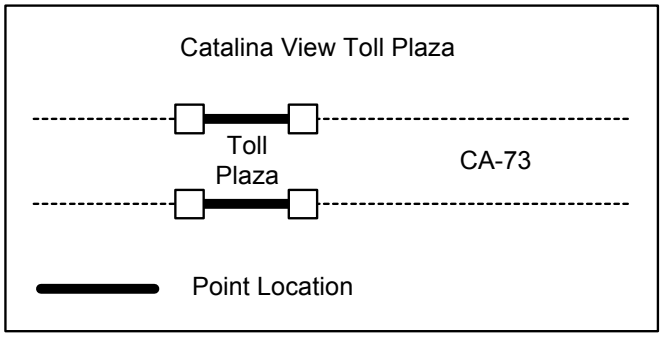


Figure I-39

I.4.8 Linear Location Changing Name

Rule: Adjacent Point Locations cannot share the same nodes. The only exceptions are:

- the beginning and end of different Linear Locations, and
- a circular Linear Location.

These exceptions have touching Point Locations. See *Figure I-40* and *Figure I-41*. The two shades for the bold lines indicate that the Point Location for 1st St is split due to the start of a new road.

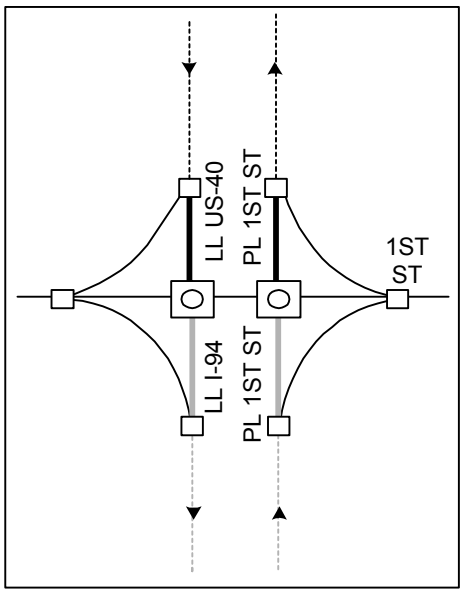


Figure I-40

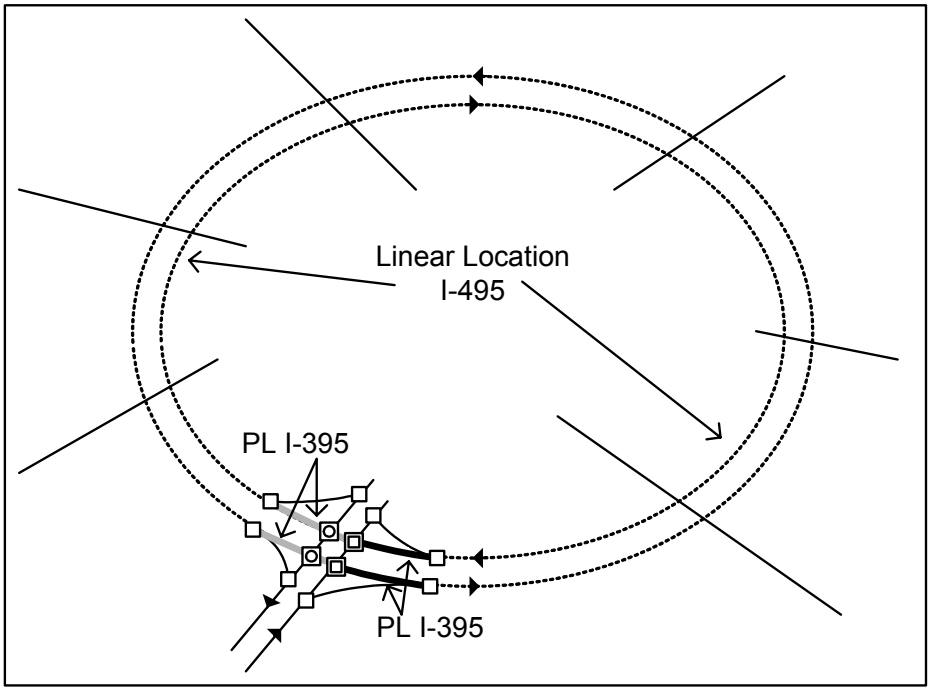


Figure I-41

I.4.9 Point Locations at Administrative Boundaries

Rules:

- Country (Administrative Level 1), state and province (Administrative Level 2) boundaries are included as Point Locations.
- When the Linear Location is ***Controlled Access*** = Y, nodes are added to place internal codes. See *Figure I-42*.

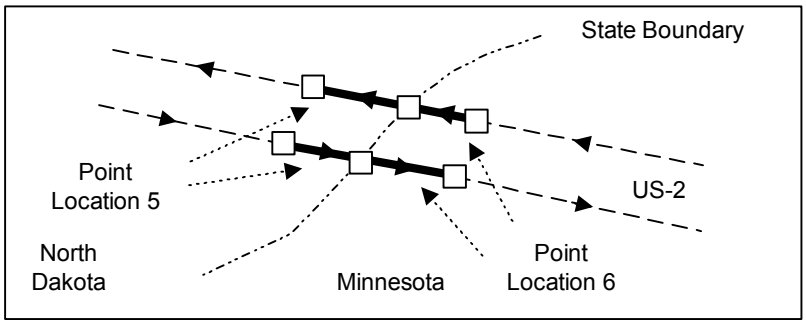


Figure I-42

I.4.10 Point Locations at Table Boundaries

Rules:

- When a Traffic Table border intersects a Point Location, there is a Point Location on each side of the border. See *Figure I-43.*

  Note: Because each Linear Location must end at a Table border, each Point Location has its own internal code.

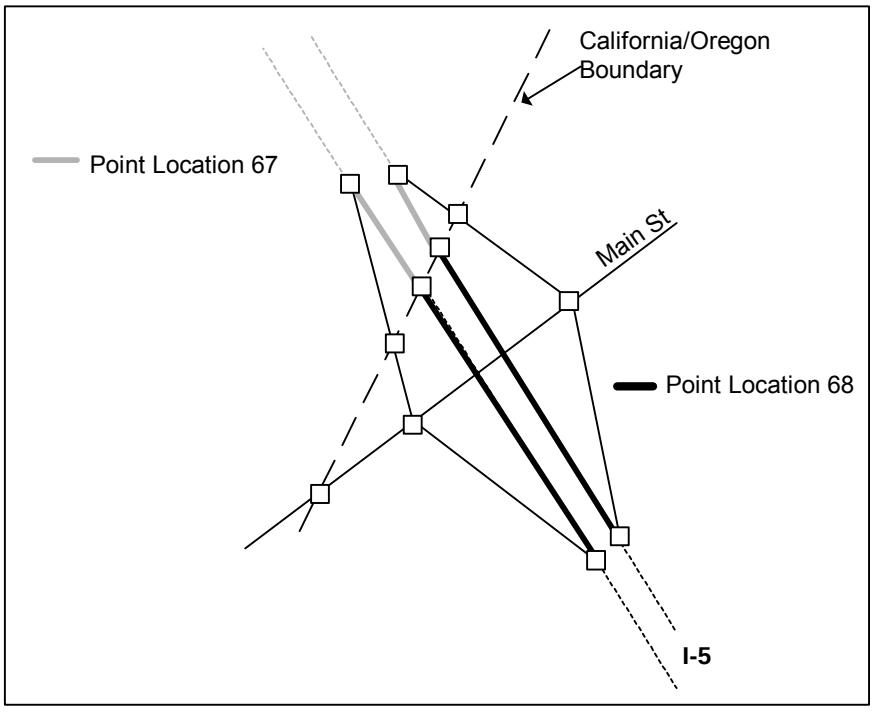


Figure I-43

I.4.11 Point Location along Controlled Access = N

Rules:

- Point Locations are included along the Linear Location for:
  - ***Functional Class*** = 1 - 3 cross streets
  - ***Functional Class*** = 4 crossings are included as Point Locations if there is no another Point Location within a mile
  - Point Locations may also be included at any other significant street-crossing or landmark, including railroads, rivers, and roads that cross but are not necessarily connected at grade to the Linear Feature.
- The placement of the Point Location along a ***Controlled Access*** = N Linear Location, follows the above mentioned rules if the situation applies.

- A Point Location may not have a corresponding link to place an internal ***RDS-TMC*** code. The Point Location is included in the Traffic Location Table. See *Figure I-44* through *Figure I-47*.
- If the Linear Location has the ***Direction of Travel*** = T or F and ***Multiply Digitised*** = N, both the positive and negative ***RDS-TMC*** codes exist at the Point Location. The external locations also have both positive and negative RDS-TMC codes.

I.4.11.1 Intersecting Multiply Digitised Road

Rule:

- The Point Location is applied to ***Intersection Internal*** links. See *Figure I-44*.

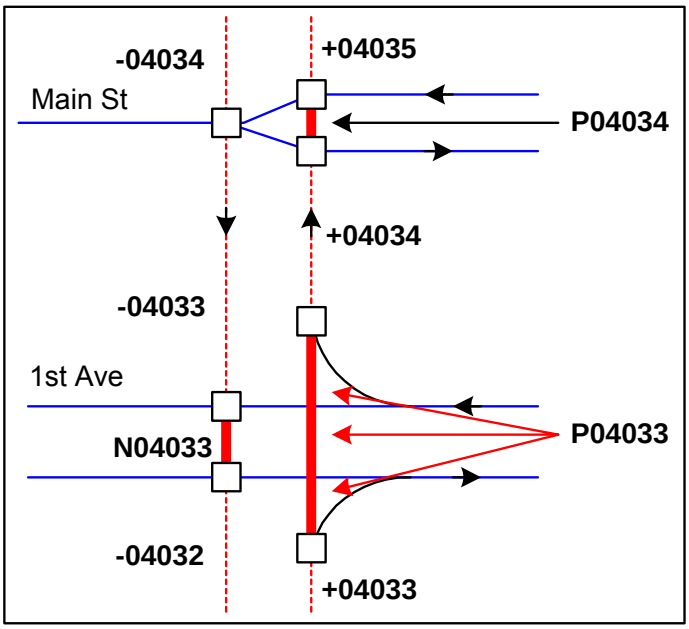


Figure I-44

I.4.11.2 Linear Location & Multiply Digitised

Rule:

- The Linear Location Link may have ***Multiply Digitised*** = N and/or ***Multiply Digitised*** = Y. See *Figure I-45*.

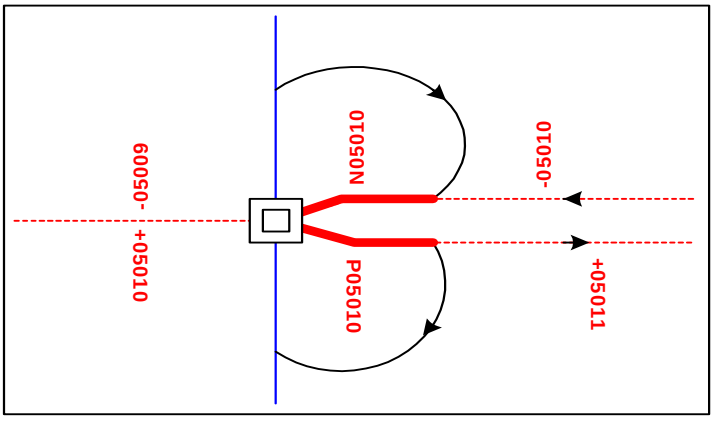


Figure I-45

I.4.11.3 External Only Point Locations

- *Figure I-46* shows a section of a Linear Location which only has External Point Locations. However, the Point Locations are still represented on the traffic table.

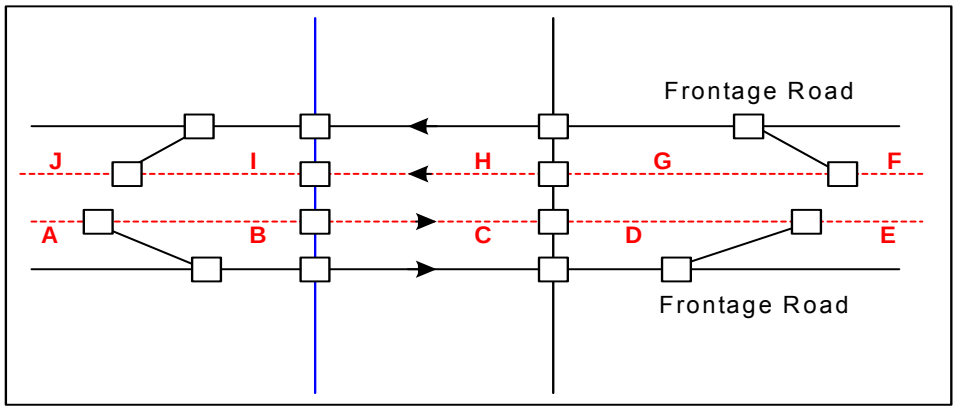


Figure I-46

Point Location ID	Link
-07392	I, J
-07393	F, G, H
+07393	A, B
+07394	C, D, E

Table I-2

I.4.11.4 Point Location IDs

- Point Location IDs are unique to each individual Traffic Table. However, the same Point Location ID may exist between Traffic Tables.
- Point Location IDs are permanent IDs and are not reused if the Point Location no longer exists.
- When a new Point Location is inserted between two existing Point Locations, the next available ID is used. Point Locations along a Linear Location are not renumbered to accommodate the new Point Location.

Point Location ID	Link
+08944 -08943	1
+08944 -08943	2
+08944 -08943	3
P08943 N08943	4
+08943 -08942	5
+08942 -08941	6
P08941 N08941	7
P08941 N08941	8
+08941 -08940	9
+08941 -08940	10
+08941 -08940	11
N08940 P08940	12
N08940 P08940	13
No Coding	14

Table I-3

I.4.11.5 Entire Linear Location

Figure I-47 shows an entire Linear Location with the corresponding ***RDS-TMC*** coding.

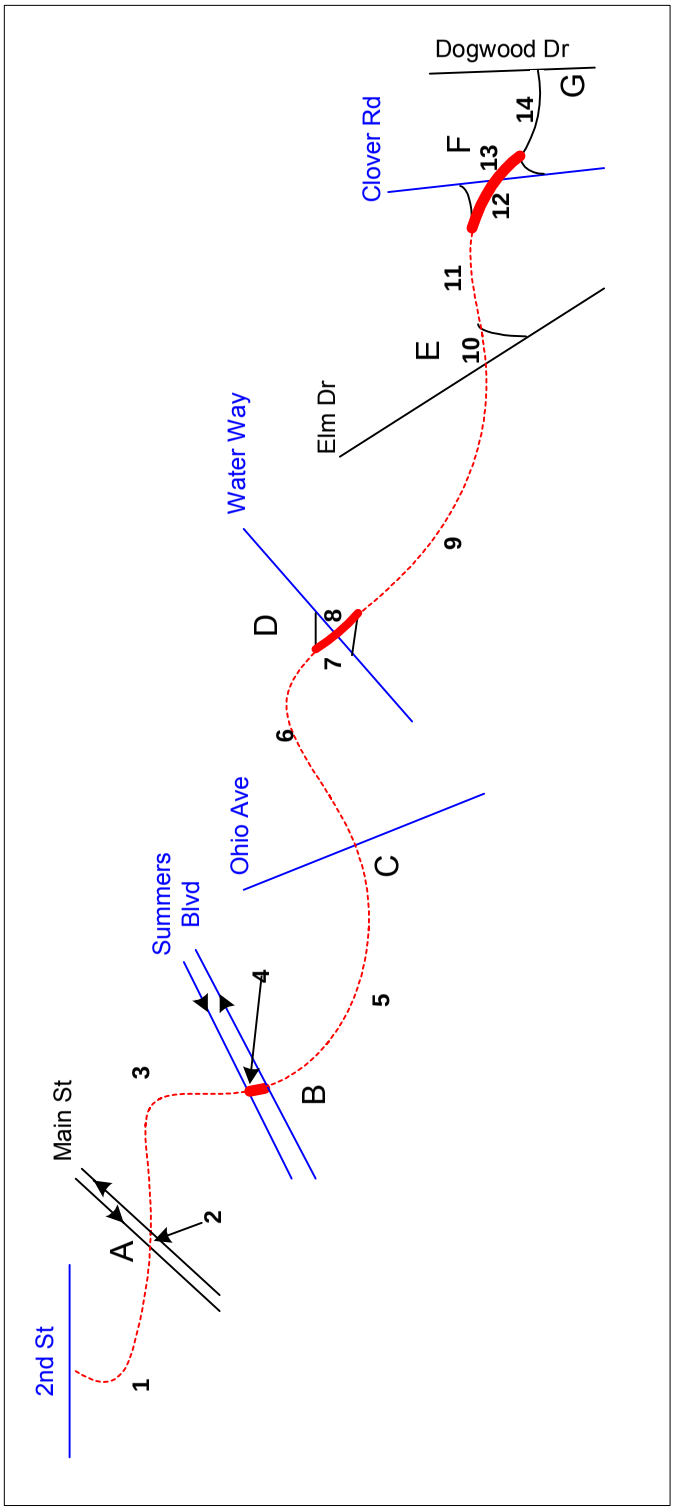


Figure I-47

I.5 Traffic Location Table Specification

This section describes the Traffic Location Table specification. Below are general specifications for the table:

- The Traffic Location Table is assigned a two digit ID from the range 1-63. The geographic area covered by a particular table is determined by NAVTEQ, with input from customers and traffic information providers.

- The combination of the European Broadcasting Union (EBU) country code, the location table ID and the location ID uniquely identifies a traffic location.

- The Traffic Location Table information of Negative and Positive Offset determines the order of the Location IDs. The numeric sequencing of the IDs cannot be used to determine the order. By using the Negative and Positive Offset information, the positive direction of the Linear Location can be determined.

- The table is designed to allow a traffic provider to map traffic information from the real world to the NAVTEQ Traffic Location IDs.

- The Traffic Location Table has a header row labeled 00. This includes the creation date in the format YYYYMMDD (e.g. 200060201) and the version number of the table in the format VYYYY.X.yy (e.g. V2006.2.00). See *Table I-7* for an example of a header. The version number is incremented when a new table is released. The frequency of update is determined by NAVTEQ, with input from customers and traffic information providers. When a table is published for the first time, it receives v1.00. As the table is expanded with new areas of coverage, the minor number (yy) will be incremented. The original location codes from v1.0 are not changed in these later versions. When changes are made to previously published traffic coverage (for example a new highway crossing is built), the major version number (X) will be incremented.

- The Traffic Location Table has a terminating row labeled as 99.

- The table is delivered in Microsoft Excel format. The lengths described in the table layout below are intended to describe maximum lengths.

The following page describes the layout of the table. See *Table I-2* for example.

Table ID This is the ID of the table. The values for table IDs must be within the range of 1-63.

Length: 2, Type: Numeric

Location Code This column contains the code of the particular location. The values for locations must be within the range of 1-63487.

Length: 5, Type: Numeric

Location Type This column contains the type of the location. Each location is described by a code, which is composed of:

- a character (A, L or P), indicating the location category (area, linear or point)
- a number indicating the type
- a dot
- a number indicating a subtype

Example:P1.1 - motorway intersection (P = point, P1 = junction)

For types for which not a subtype is defined, the subtype code 0 (zero) has to be used to define the type as a subtype.

Example: A3.0 - country

Area

Area defines the coverage of a service area (e.g. county, State, etc.). Area Locations follow a hierarchical order. This facilitates sorting and selection of information and in defining specific service areas. The different Traffic Area types are listed in *Table I-4*.

Code	Definition	Example
A1.0	Continent	North America
A3.0	Country	Country (USA, Canada, Puerto Rico, Mexico)
A7.0	Administrative area which belongs to the first level administrative subdivision of a Country, but which may not be the smallest unit in that country.	State, Province
A8.0	Administrative area which belongs to the second level administrative subdivision of a Country, but which may not be the smallest unit in that country.	County, Municipality/County in Canada: for Alberta, Manitoba, and Saskatchewan)
A12.0	Broadcast Service Area	Las Vegas, Los Angeles, Orange County, San Diego, etc.

Table I-4

Linear

A road is described by its general direction within the entire country. For example, I-80 is an East/West road that extends from the George Washington Bridge in NJ to San Francisco. This data is reflected in the ***Direction on Sign*** attribute.

The Linear Locations are defined based on the rules in *Section I.3, Linear Location*, and additionally, a Linear Location breaks when it crosses a defined Area.

The information in columns First Name and Second Name references the general direction of the road. For example, where the I-5 starts at the border with Mexico, the First Name is "Southbound" and the Second Name is "Northbound". In some cases, the compass direction is not relevant for a road. For example, I-695 in Washington DC forms a loop that is identified with Inner Loop and Outer Loop. In this case, the compass direction is not used for the First Name and Second Name; instead, a reference to the direction of travel within the loop is used. In this case, clockwise travel is referenced as "Inner Loop" and counter-clockwise travel is referenced as "Outer Loop".

Types of Linear Locations examples are listed in *Table I-5*. Each of these are defined in the CEN standard as "Road".

Code	Subtype	Definition
L1.1	Interstate roadways	Types L1 are one or more contiguous segments of roadway within a single national or regional/departmental road numbering area, bearing a particular national or regional/ departmental road number, whose end points are in different places.
L1.2	US roadways	
L1.3	State roadways	
L1.4	Other roads	
L3	N/A	***Functional Class*** = *1* Segment ; Higher level subdivision of a road/ring road/vehicular link, which is defined in terms of the location that it joins.

Table I-5

Point

A Point Location defines a location on a ***Controlled Access*** motorway at a ramp intersection, a bridge/tunnel, a toll booth, a rest area, a Country or State/Province boundary, an Express/Reversible/Carpool Roads, the beginning/end of the motorway, or other included locations. Locations that do not meet the specifications (see *Section I.4.1, Inclusion of Point Locations*) are included when they are important for traffic messages. These additional locations are determined by NAVTEQ, with input from customers and traffic information providers. A Point Location may also define a location along a ***Controlled Access*** = N motorway at a ***Functional Class*** = 1 - 4 cross street

(may be a ramp intersection), a bridge/tunnel, a toll booth, a rest area, a Country or State/Province boundary, or the beginning/end of the Linear Location.

Examples of Point Locations are listed in *Table I-6*.

Code	Subtype	Definition
P1.1	motorway intersection	Types P1 is point on a road or ring road where other road(s) and/or ring road(s) connect.
P1.3	motorway junction	
P1.11	crossroads	
P1.13	Intermediate Node	
P3.1	Tunnel	Types P3 are Point of interests in traffic and travel messages.
P3.2	Bridge	
P3.3	Service Area	
P3.4	Rest Area	
P3.14	Border/Frontier	
P3.16	Toll Plaza	
P3.24	Theme Park	
P3.25	Tourist Attraction	
P3.27	Airport	
P3.29	Hospital	
P3.35	Exhibition/convention centre	
P3.37	Place Name	

Table I-6

Length: 5, Type: Numeric

Road Number This column contains the Road Number. When a linear has both a route number and local name, the route number is placed in the Road Number column and the local name in the Road Name column. Thus the linear has both a Road Number and a Road Name.

Road Number is meaningless for Area Locations, so it is not populated.

Length: 35, Type: Alphanumeric

Road Name This column contains the Road Name. When a linear has both a route number and local name, the route number is placed in the Road Number column and the local name in the Road Name column. Thus the linear has both a Road Number and a Road Name.

Road Name is meaningless for Area Locations, so it is not populated.

Length: 35, Type: Alphanumeric

First Name This column is populated in the following manner:

- For Area Locations, the First Name is the name of the area.
- For Linear Locations, the First Name is the direction of travel towards the negative end. In the case where the compass direction is not useful, the typically used reference to the direction of travel towards the negative end is used.
- For Point Locations, the First Name is the location name (e.g. junction name, bridge name, etc.).

Length: 35, Type: Alphanumeric

Second Name This column is populated in the following manner:

- For Linear Locations, the Second Name is the direction of travel towards the positive end. In the case where the compass direction is not useful, the typically used reference to the direction of travel towards the positive end is used.

Length: 35, Type: Alphanumeric

Area Reference This column contains the Area ID referenced by the particular location.

Note: This Area ID refers to the ID in the Location Table. It does not correspond to a permanent Area ID or to any ID in the SIF.

The column is populated in the following manner:

- An Area Location is always referenced to the next higher Area Location in the hierarchy.

Refer to *Table I-7* for example. Note that sample Locations Codes are colored to depict relationships.

In the table, Nevada and California are both upward referenced to the United States. This is indicated by the Location Code of the U.S., which is 6001(blue font) being entered in the Area Reference column. Subsequently, U.S. is also upward referenced to North America, as indicated by N.A.'s Location Code

6000 (green font) being entered in the Area Reference column. The same concept applies to Los Angeles , which is upward referenced to California (red font).

- For Linear and Point Locations, the Area Reference is the ID of the area where the Linear Location or Point Location exists.

Length: 5, Type: Numeric

Linear Reference

- This column contains the Linear Location ID for the corresponding Point Location. This column is not populated for Area Locations since it is meaningless. Linear Locations of lower levels can have a Linear Reference. As illustrated in *Table I-7*, two Location Codes on L3 are both upward referenced to L1.3. This is indicated by L3's Location Code in the Linear Reference column (magenta color).
- Point Locations always have both Area and Linear Location References.
- For Linear and Point Locations, the Linear Reference is the ID of the upper Linear Location where a Linear Location or a Point Location exists.

Length: 5, Type: Numeric

Negative Offset This column contains the Location ID of the Previous Location.

This column is populated in the following manner:

- For Area Locations, this column is not populated because the data is meaningless for this type of location.
- For Point Locations, the Negative Offset is the ID of the previous Point Location. In the case where the Point Location is the first of a Linear Location where there is no previous Linear Location, this is not populated.
- For Linear Locations, the Negative Offset is the ID of the previous Linear Location. This is published when the last Location ID of one Linear Feature matches the first Location ID of another Linear Feature.

  Note: Linear Features are not linked using Positive Offset and Negative Offset when their directions oppose one another. In some cases, the same Linear Feature has been added with opposite positive directions. For example, this can be the result of the Linear Feature originally belonging to two different Area Features. In this case, one of the original Linear Features is extended to meet the other and ends with an internal code.

Length: 5, Type: Numeric

Positive Offset

This column contains the Location ID of the Next Location.

This column is populated in the following manner:

- For Area Locations, this column is not populated because the data is meaningless for this type of location.
- For Point Locations, the Positive Offset is the ID of the next Point Location. In the case where the Point Location is the last of a Linear Location where there is no next Linear Location, this is not populated.
- For Linear Locations, the Positive Offset is the ID of the next Linear Location. This is published when the last Location ID of one Linear Feature matches the first Location ID of another Linear Feature.

  Note: Linear Features are not linked using Positive Offset and Negative Offset when their directions oppose one another. In some cases, the same Linear Feature has been added with opposite positive directions. For example, this can be the result of the Linear Feature originally belonging to two different Area Features. In this case, one of the original Linear Features is extended to meet the other and ends with an internal code.

Length: 5, Type: Numeric

Latitude

This column contains the latitude for some point within a Point Location. The latitude is published in WGS 84, which is the functional equivalent to NAD 83 based on NAVTEQ only storing the value to five decimal places.

This column is not populated for Linear or Area Locations.

Length: 9, Type: Signed numeric (when the value is positive, sign is not published)

Longitude

This column contains the longitude for some point within a Point Location. The longitude is published in WGS 84, which is the functional equivalent to NAD 83 based on NAVTEQ only storing the value to five decimal place.

This column is not populated for Linear or Area Locations.

Length: 9, Type: Signed numeric (when the value is positive, sign is not published)

Table Number	Location Code	(sub) Type	Road Number	Road Name	First Name	Second Name	Area Reference	Linear Reference	Negative Offset	Positive Offset	Latitude	Longitude
00 Location Table 20060216 V2006.2												
06	60000	A1.0			NORTH AMERICA							
06	60001	A3.0			UNITED STATES		60000					
06	60011	A7.0			CALIFORNIA		60001					
06	60012	A7.0			NEVADA		60001					
06	60100	A8.0			IMPERIAL		60011					
06	60101	A8.0			CLARK		60012					
06	00005	A12.0			IMPERIAL COUNTY - CA		60011					
06	00006	A12.0			LAS VEGAS		60012					
06	00007	A12.0			LOS ANGELES		60011					
06	00008	A12.0			ORANGE COUNTY		60011					
06	00010	A12.0			SAN DIEGO							
06	00151	L1.3	CA-91	HOV LN RAMP	EASTBOUND	WEST-BOUND	60001					
	00200	L1.4		MAC-ARTHUR BLVD								
	03019	L1.1	I-5		SOUTH-BOUND	NORTH-BOUND	60001					

Table Number	Location Code	(sub) Type	Road Number	Road Name	First Name	Second Name	Area Reference	Linear Reference	Negative Offset	Positive Offset	Latitude	Longitude
06	00066	L1.3	CA-134		EASTBOUND	WEST-BOUND	60001					
06	03010	L1.3	CA-71		SOUTH-BOUND	NORTH-BOUND	60001					
06	00065	L1.3	CA-170		SOUTH-BOUND	NORTH-BOUND	60001			00089		
06	00089	L3.0	CA-71		SOUTH-BOUND	NORTH-BOUND	60001	03010		00088		
06	00088	L3.0	CA-71		SOUTH-BOUND	NORTH-BOUND	60001	03010	00089			
06	00111	L3.0	I-5		SOUTH-BOUND	NORTH-BOUND	60001	03019		00112		
...												
06	00114	L3.0	CA-15		SOUTH-BOUND	NORTH-BOUND	03003	00131				
06	00131	L3.0	CA-15		SOUTH-BOUND	NORTH-BOUND	03003	00114				
...												
06	04965	P3.14	I-5		US/MEXICO BORDER		00010	00111		04966	32.5424	-117.02959
06	04966	P1.3	I-5		CAMINO DE LA PLAZA		00010	00111	04965	04967	32.54435	-117.03224
06	04967	P1.1	I-5		I-805		00010	00111	04966	04968	32.54581	-117.0344
...												

Table Number	Location Code	(sub) Type	Road Number	Road Name	First Name	Second Name	Area Reference	Linear Reference	Negative Offset	Positive Offset	Latitude	Longitude
06	05529	P1.11	CA-15		I-5		00010	00114		05530	32.68819	-117.11484
06	05530	P1.11	CA-15		MAIN ST		00010	00114	05529	05531	32.69468	-117.12063
...												
06	06001	P1.11	CA-91	WEST HOV LN RAMP	STATE COL-LEGE BLVD		00007	00200		06002	33.99160	-118.27404
...												
99												

Table I-7

I.6 Traffic Tables in North America

NAVTEQ has 32 Traffic Tables assigned in North America. These tables are a spanning set with no gap or overlaps. Not all tables are populated. The summary below identifies the Table ID, Table Name, DCA, and Sub-Region:

Table ID	Table Name	DCA	Sub-Region(s)
1	Alabama/Georgia	9	9.2
2	Florida	9	9.1/9.2
3	Eastern PA/Southern NJ/Delaware	8	8.1
4	Western PA/New York	6	6.3
5	Northern California/Nevada	1	1.1/1.2/1.3
6	Southern California & Las Vegas	1	1.2/1.3
7	Illinois/Indiana/Wisconsin	5	5.2
8	Michigan/Ohio	5	5.1
9	Ontario	11	11.2
10	Virginia/Maryland/North Carolina	8	8.2/8.3
11	Northern Texas/Oklahoma	4	4.1/4.2
12	Southern Texas	4	4.1/4.4
13	AR/LA/MS/TN	4	4.2/4.3
14	Oregon/Washington	2	2.1
15	Arizona/New Mexico/Texas	2	2.4
16	Colorado/Utah	2	2.3
17	Idaho/Montana/Wyoming	2	2.2
18	North Central States	3	3.1/3.2
19	Kansas/Missouri/Southern Illinois	3	3.3
20	New York/Northern NJ/Connecticut	7	7.1/7.2
21	Kentucky/Tennessee/Indiana	6	6.1/6.2
22	Ohio/Maryland/West Virginia	6	6.2/6.3
23	British Columbia	11	11.1
24	Quebec	11	11.2
25	North Carolina/South Carolina	9	9.3
26	Hawaii	10	10.1
27	Alberta	11	11.1

Table ID	Table Name	DCA	Sub-Region(s)
28	Manitoba	11	11.1
29	New England	7	7.2/7.3
30	NB-NS-PE	11	11.2
31	Saskatchewan	11	11.1
32	Puerto Rico	9	9.4
33	Alaska	10	10.2
34	Newfoundland and Labrador	11	11.2
35	NT-NU-YT (Northwest Territories, Nunavit, Yukon)	11	11.1

Table I-8

(This page intentionally left blank)

Copyright

(This page intentionally left blank)

(This page intentionally left blank)

Revision History

(This page intentionally left blank)

RH.1 Initial Release

Version	Date	Page #	Description
1.0	01-01-06		Initial Release

RH.2 Changes made for v1.1

Version	Date	Page #	Description
1.1	17-03-06	1-7	Second bullet for ***Railways*** (linear feature) reworded to read: "U.S. and Puerto Rico: The main lines of all above-ground railways are included."
		1-10	Second bullet for ***Public Airports and Aircraft Roads*** (polygonal feature) reworded to read: "In the U.S., U.S.V.I, and P.R., only FAA-certificated airports are included."
		1-13	Third bullet for *Cartographic Inclusion* reworded to read: "Area polygons greater than 50.000 metres2/540.000 feet2 for the following categories (U.S., U.S.V.I., and P.R.):"
		2-36 thru 2-37	Added the following bullets to Section 4.7.8.1 Park in Water: "Ocean polygons are not full formation around Park in Water polygons. However, Park in Water polygons are full formation around all islands within the Park in Water polygon." "Z-levels are applied when a ferry crosses the Park in Water boundary." "Park in Water polygons do not overlap. In cases where a Park in Water polygon is split between two regions, the Park in Water boundary in one region is edge matched to the Park in Water polygon in the other region." "The name of the Park in Water polygon matches the name of the park on land if they are representing the same park."
		3-7 thru 3-8	Actual Address (per Country) - table: Updated Hungary and added Russia.
		3-20 thru 3-21	Area Name Language Code - table: Added Bulgarian Transcribed, Russian Transcribed and Serbian transcribed.
		3-102	Language Code - table: Added Bulgarian Transcribed, Russian Transcribed and Serbian transcribed.
		3-104 thru 3-109	Summary of Address Formats and How they Increment - table: Updated Address Formats for the following locations: Stone County, MO St. Croix County, WI Polk County, WI Iron County, WI Faulkner County, AR Baxter County, AR Carroll County, AR Clark County, AR Little River County, AR Logan County, AR Saline County, AR Grant County, NM Otero County, NM San Miguel County, NM San Juan County, NM Dona Ana County, NM Whitfield County, GA St.Landry County, LA Acadia County, LA Calcasieu County, LA Vernon County, LA

Version	Date	Page #	Description
		3-113 thru 3-115	Postal Code Structure per Country - table: Added Russia.
		3-127 thru 3-131	Name Route Type - table: Added Russia.
		C-6	Table updated to include Russia.
		C-6 C-7 C-10	Table updated to include SCT for Serbia and Montenegro; and UKT for Ukraine.
		C-25	First bullet for Postal Area updated to read: “Used in Denmark, Finland, Sweden, the U.S., Puerto Rico, and the Netherlands only.”
		C-26	Last bullet for Postal Area updated to read:”In Sweden and Finland, PA Zones are included for the names associated to the postal areas. A zone is only included when its name is different from the Kommun or built-up area name.”
		C-30	Updated AA Level 3 for Bulgaria to “Obshhina”.
		C-34	AA Levels 2 and 3 for Moldova updated to Raion and Comuna, respectively.
		C-35	Table updated to include Russia.
		C-40	Updated Feature Type 900101 for Bulgaria to “Obshhina”.
		C-44	***Feature Types*** 900170 and 900101 for Moldova updated to Raion and Comuna, respectively.
		C-46	Table updated to include Russia.
		I-42	Fifth bullet for *Specification* reworded to read: “The Traffic Location Table has a header row labeled 00. This includes the creation date in the format YYYYMMDD (e.g. 200060201) and the version number of the table in the format VYYYY.X.yy (e.g. V2006.2.00).
		I-43	***Location ID*** replaced with ***Location Code***.
		I-43	Reworded ***Area*** section to read: “Area defines the coverage of a service area (e.g. county, State, etc.). Different area features allow flexibility in defining specific service areas.”
		I-43	Sections on ***Area Location*** rewritten. Table for ***Area*** Types added.
		I-44	Sections on ***Linear Location*** rewritten.
		I-44	Table for ***Linear Location*** Types inserted.
		I-45	Table for ***Point Location*** Types inserted.
		I-46	Description for ***Area Reference*** and for ***Linear Reference*** rewritten.
		I-48	Replaced “decimal points” with “decimal places”.
		I-48 to I-49	Table for Traffic Location examples updated to include the following location types: A1, A3, A7, A8, and L3. New coordinates format also illustrated.
		I-49 thru I-51	Table for Traffic Locations updated.

RH.3 Changes made for v2.0

Version	Date	Page #	Description
2.0	17-6-06		The NAVSTREETS Product Guides have been merged into this manual.
		1-5	Reworded eighth bullet to read, “Ferry connections that follow regular schedules for automobiles (and the driver of the vehicle) via rail or boat.”
		1-6	List updated to include Transportation Network in airports.
		1-7	Added bullet to *Built-up Area Polygon for each Named Place*: “A built-up area polygon is included for every settlement that has settlement level coding, with one exception. When the built-up area of a settlement is completely within the built-up area of the municipality, only one built-up area with the name of the municipality is included.”
		1-8	Rewritten Note for *National Parks in Europe* to read, “In Europe, recreation areas that meet the size inclusion are included. Polygons are not added for historical city centers, bridges, castles, squares, or historical buildings.”
		1-8	Notes added for *National Park:* “In North America, historic parks, scenic parks, beach parks and recreation areas that meet the size inclusion are included.” and “In Europe, recreation areas that meet the size inclusion are included. Polygons are not added for historical city centers, bridges, castles, squares, or historical buildings.”
		1-8	List for *Area polygon categories* updated to include ***Park in Water.***
		1-8	Rewritten Note for National Monuments In Europe to read, “In Europe, only National Monument polygons for parks and woodlands are included. Polygons are not added for historical city centers, bridges, castles, squares, or historical buildings.”
		1-10	Bullet added to Transportation Network for Europe: “Roads that are ***Functional Class*** (Level 1, 2, 3, and 4).”
		1-10	Third bullet for Transportation Network (Europe and North America) modified to read: “Ferry connections that follow a regular schedule for automobiles (and the driver of the vehicle) via rail or boat between qualifying roads and to Named Place POIs.”
		1-13	List for Area polygon categories updated to include ***Park in Water***.
		2-27	Figure 2-29 updated.
		3-3	Removed Installshield wizard for ArcView.
		3-4	Removed Installshield wizard for MapInfo.
		4-12	Added Intermittent Rivers to 4.1.19 Waterway Polys, Waterway Segments.
		5-33	Added Airport Type to the Transportation Hubs Layer (ArcView).
		5-87	Added Airport Sub Type to the Transportation Hubs Layer (MapInfo).
		5-136	Added Airport Sub Type to the Transportation Hubs Layer (Oracle).
		6-8	Added Argentina to Actual Address per Country table.
		6-16	Added Airport Type and Airport Sub Type descriptions.
		6-22	Added MAT (Macedonian Transcribed) to Area Name Language Code table.
		6-66	Added Intermittent River (500413) to Feature Types.

Version	Date	Page #	Description
		6-110	Added MAT (Macedonian Transcribed) to Area Name Language Code table.
		6-136	Table Updated: Route Type 3 for Albania added.
		6-136	Table updated: Routes Types 1, 2, and 3 for Andorra.
		6-136	Updated Route Types 4 and 5 for Austria.
		6-136	Updated Route Types 3 and 4 for Bosnia-Herzegovina.
		6-136	Updated Route Types 2 and 3 for Bulgaria.
		6-136	Added “Hwy-#” and “Rte-#” to Route Type 3 for Canada.
		6-136	Updated Route Types 1 and 2 for Croatia.
		6-136	Updated Routes Types 1, 3, 4, 5, and 6 for Czech Republic.
		6-137	Corrected Route 1 for Estonia.
		6-137	Updated Routes Types 2, 3, 4, 5, and 6 for Finland.
		6-137	Expanded Route Types 4 and 5 for France.
		6-137	Updated Route Type 6 for Germany.
		6-137	Updated Route Type 2 for Greece.
		6-137	Updated Route Type 1 for Hungary.
		6-138	Updated Route Types 2 and 3 for Isle of Man.
		6-138	Updated Route Type 4 for Italy to include “Strada Regionale”.
		6-138	Updated all aplicable Route Types for Latvia.
		6-138	Updated all aplicable Route Types for Liechtenstein.
		6-138	Updated Route Types 1 and 2 for Lithuania.
		6-138	Updated Route Type 2 for Luxembourg.
		6-138	Updated Route Type 4 for Moldova.
		6-138	Updated Routes 1, 2, 5, and 6 for Monaco.
		6-138	Added Route Type 6 for the Netherlands.
		6-139	Updated Route Types 5 and 6 for Portugal.
		6-139	Updated all applicable Road Types for Romania.
		6-139	Updated Routes 4 and 5 for Slovak Republic.
		6-139	Updated all applicable Road Types for Slovenia.
		6-139	Updated Route Types 1 and 2 for Sweden.
		6-140	Updated Route Type 3 for Switzerland.
		A-3	Removed the NAVSTREETS Standard Product description.

Version	Date	Page #	Description
		A-5	First paragraph rephrased to read: “The NAVSTREETS source data file format (SIF+) does not support Unicode. As a limited term solution, a companion External Unicode "look-aside" file is created per database Sub-Region to publish names requiring non-Latin 1 characters represented in Unicode (hereafter referred to as “Unicode” characters).”
		A-5	Inserted *Section A.3.1. Definition of Terms*.
		A-5	Modified Heading level for *Section A.3.1.2 References.*
		A-6	Rephrased text in *Section A.3.2 Supported Languages* to read: “NAVTEQ supports the following languages (in their original Unicode representation) using look-aside files:”
		A-6	Added language codes to list of supported languages, and expanded list to include Arabic (ARA), Traditional Chinese (CHT), and Greek (GRE).
		A-6	Created the following new sections: *A.3.2.1 Use of Transcriptions in NAVSTREETS source data file format (SIF+) Products* *A.3.2.2 Use of Transliterations in NAVSTREETS source data file format (SIF+) Products*
		A-6	*Added Table A-1.*
		A-11	Created *Section A.3.3 NAVSTREETS source data file format (SIF+) Extract Variations*.
		A-11	Added details relating to Arabic (ARA), Traditional Chinese (CHT), and Greek (GRE), in *Section A.3.4 Street Type Representation*.
		A-11	Created *Section A.3.5 Sign Representation*.
		A-13	Removed “Data Record [20]” from the following sections: *A.3.10.2 UTF Language Code* *A.3.10.3 UTF Text* *A.3.10.4 Latin-1 Language Code* *A.3.10.5 Latin-1 Text*
		A-15	Adjusted specification for Latin-1 Text to read: “For the languages listed in *Section A.3.2, Supported Languages*, each name is represented as a Latin-1 character string.”
		A-15	Removed *Section A.3.11.3 Data Record [20].*
		A-16	Modified example to show Type-10 Record.
		C-6	Spelling for Macedonia corrected to read: MAKEDONIJHA.
		E-5	Format for Code I corrected: N123W12312.
		E-7	Table updated to include Attribute Type = 22: ***Airport Type***.
		E-8, E-29 to E-32	Expanded classification of the following Petrol Station Chains to Grocery Store Chains: 785, ATAC 820, AUCHAN, 42, CARREFOUR 822, CHAMPION 786, INTERMARCHÉ 828, SHOPI 887, SUPER U
		E-32	Updated category of POI Chain EROSKI to 5540.
		E-43	Updated Chain ID Code 1257 to read, “LA BANQUE POSTALE.”

Version	Date	Page #	Description
		E-46 to E-53	Updated the spelling of the following POI Chain IDs: Northeast Bank, Pacific Western, National Bank, Regions, Tompkins Trust Company, Save-A-Lot, Dollar Rent A Car, Fosters Freeze, Little Caesars, and Miami Subs Grill.
		E-57	Added the following POI Chains: 1719, ROSNEFT' 1720, SIBNEFT' 1721, SLAVNEFT' 1722, AUTOFOOD
		E-57 to E-59	Added POI Chains to Facility Type Bank(6000), Grocery Store(5400), Hotel(7011) and Auto Service and Maintenance(7538).
		E-61	Definition for ARS corrected to read, "Argentine Peso."
		E-77	Updated FRE language spelling for Facility 5540 to read: "STATION-SERVICE".
		E-142	Table updated to include MAT, Macedonian Transcribed.
		E-142	Table updated to include Intermittent River.
		E-163	Table expanded to include POIATTR Type = 22, Airport Type.

RH.4 Changes made for v2.1

Version	Date	Page #	Description
2.1	15-9-06	1-9	Added Beach Polygons to Inclusion list.
		1-13	Added Beachs Polygon to inclusion list.
		2-5	Corrected text in figure 2-1
		2-35	Inserted Beach Polygons section.
		5-10	Corrected AR_truck to AR_trucks
		5-20, 5-75, 5-126	Added Number of Area Ids to AdminArea table
		5-17, 5-69, 5-121	Changed “Side” to “Zone Side” - attribute
		5-9, 5-61, 5-114	Added Alternate Street Address information
		5-12, 5-64, 5-117	Added Alternate Street Address layer
		5-12, 5-64, 5-17	Added Scenic Route and Scenic Route Name attributes
		5-41, 5-96, 5-143	Added Diesel attribute
		6-46	Added Diesel description
		6-8	Updated Actual Address per Country table: Added Mexico, Thailand, and Turkey to table.
		6-20	Updated Area Name Language Code table: added BEX, BUX, GRX, MAY, RUX, SCX, TUR, and UKX.
		6-29	Updated Name Route Type table: - Added Argentina and Mexico. - Updated Route Types for Switzerland.
		6-35	Updated Capital table: Added Argentina, Mexico, Thailand, and Turkey.
		6-35	Changed Denmark admin level 2 “Amt” to “Region”
		6-63	Feature Type table: Added Beach and Colonia.
		6-104	Language Code table: added BEX, BUX, GRX, MAY, RUX, SCX, TUR, and UKX.
		6-117	Left Postal Code table: - Added Argentina, Mexico, Thailand, and Turkey. - Updated Published Postal Code for Canada to 6 alphanumeric characters.
		6-141	Added Number of Area Ids description
		6-171, 6-172	Added Scenic Route and Scenic Route Name description
		6-172	Corrected the description of “Side” - attribute

Version	Date	Page #	Description
		6-203	Added “Zone Side” - attribute description
		A-4	Added Alternate Street Address layer.
		A-5	Rewrote *Note* for *Transliteration* to read: “In NAVTEQ data, transliteration is used to refer to names generated from non-Latin-1 names.”
		A-5	Rewrote *Note* for *Transcription* to read: “In NAVTEQ data, transcription is used to refer to names that appear in reality in Latin-1 characters in countries that use a different character set by default.”
		A-6	Added THA (Thai) to list of languages supported using look-aside files.
		A-6	Added GRT(Modern Greek) to table.
		A-7 thru 8	Rewrote *Case 1 and Case 3*.
		A-8	Updated first bullet to read: “Variation A publishes numerical IDs in the Name fields. The corresponding ISO Language Code is published (e.g. RUS).”
		A-8	Updated second bullet to read: “Variation B publishes Latin-1 character strings in the Name fields. The corresponding “Transliterated” Language Code is published (e.g. RUX).”
		A-8	Updated second paragraph to read: “Street Types in Greek (GRE) are not located in the Street Type File. Instead, they are represented in the base name. A list of Street Types for use in Greece with corresponding spellings in Latin-1 characters (GRX) is available.”
		A-8	Reworded first paragraph to read: “All attributes are provided on a data record of Type 10. At this time, NAVTEQ supports the languages listed in 32.4.2 Supported Languages using “Transliterated” Language Codes.”
		A-13	Replaced CYT with BEX, BUX, GRX, MAX, RSX, SCX, UKX, ENG, and POR for Latin-1 ***Language Code*** *Value.*
		A-16	Replaced CYT with RUX.
		C-5 thru 7	Added Argentina, Mexico, Thailand, and Turkey to table.
		C-9 thru 11	Added Argentina, Mexico, Thailand, and Turkey to table.
		C-12	Update *Usage* to read: “***Cartographic State/Province Boundary*** can be used to display the State/Province boundaries on land between adjacent states and provinces in the U.S., Canada, and Australia.”
		C-20	Added Note: “Due to the consolidation of the links when the seamless regions are created, the administrative coding along the links in the overlap area may differ.”
		C-24	Reworded bullet for *Postal Area to read, “*Used in Denmark, Finland, Norway, Sweden, the U.S., Puerto Rico, U.S.V.I., and the Netherlands only.”
		C-28 thru 39	Added Argentina, Mexico, Thailand, and Turkey to table.
		C-40 thru 52	Added Argentina, Mexico, Thailand, and Turkey to table.
		C-31, C-41	Changed Denmark admin level 2 “Amt” to “Region”
		D-7	Added ***Diesel*** to table.
		D-16	Updated spelling for ROLLS-ROYCE.
		D-18	Updated spelling for NENDELS INN.
		D-20	Updated spelling for GAS N SHOP, HAN-DEE HUGO’S, and HANDI PLUS.

Version	Date	Page #	Description
		D-22	Updated spelling for MR MIKE'S.
		D-23	Updated spelling for QUIKTRIP.
		D-26	Updated spelling for HOTELS DU GRAND SUD, and RELAIS DU SILENCE.
		D-34	Updated spelling for KIDSHOTELS, DIE KINDERFREUNDLICHEN.
		D-40	Updated spelling for LANDESBAUSPARKASSE.
		D-142	Added ***Beach*** to table.
		D-144 thru 145	Added the following ***Language Codes*** to table: BEX, BUX, GRX, MAY, RUX, SCX, TUR, and UKX.
		D-162	Added ***Diesel*** to table.

RH.5 Changes made for v2.2

	Date	Page #	Description
2.2	15-12-06	4-8	Added Condition Modifiers.
		4-8	Added Condition Lane Template.
		4-36	Added Metadata – Compound Reference.
		5-10, 5-66, 5-125	Replaced Speed Limit by: - From Reference Speed Limit - Towards Reference Speed Limit
		5-17	Added: - Condition Modifiers (CndMod) - Condition Lane Template (CndLn)
		5-18	Added description text to Restricted Driving Manoeuvres - Manoeuvre Links (NTC_Rdms)
		5-26	Updated Feat_Code field.
		5-45	Updated Community Service Centres (incuded Post Office info).
		5-46	Added field Building Type.
		5-51	Deleted the Post Office layer.
		5-51	Added Miscellaneous Categories (MiscCategories) layer. Note: Currently this layer only contains facility type 9590, Residential Building/Area.
		5-57	Added Metadata – Compound Reference (MtdCmpRef).
		5-64	Corrected following field-names: - Street_Name - Feature_Id - Right_RefAddr - Right_NonRefAddr
		5-71	Added: - Condition Modifiers (CndMod) - Condition Lane Template (CndLn)
		5-72	Added description text to Restricted Driving Manoeuvres - Manoeuvre Links (NTC_Rdms)
		5-102	Updated Community Service Centres (incuded Post Office info).
		5-103	Added field Building Type.
		5-107	Deleted the Post Office layer.
		5-108	Added Miscellaneous Categories (MiscCategories) layer. Note: Currently this layer only contains facility type 9590, Residential Building/Area.
		5-113	Added Metadata – Compound Reference (MtdCmpRef).
		5-125	Added: - Condition Modifiers (CndMod) - Condition Lane Template (CndLn)

	Date	Page #	Description
		5-127	Added description text to Restricted Driving Manoeuvres - Manoeuvre Links (NTC_Rdms)
		5-151	Updated Community Service Centres (incuded Post Office info).
		5-151	Added field Building Type.
		5-155	Deleted the Post Office layer.
		5-156	Added Miscellaneous Categories (MiscCategories) layer. Note: Currently this layer only contains facility type 9590, Residential Building/Area.
		5-162	Added Metadata – Compound Reference (MtdCmpRef).
		6-35	Added Building Type.
		6-51 thru 56	Updated the Divider section.
		6-89	Added From Reference Speed Limit.
		6-125	Added attributes: - Modifier Type - Modifier Value
		6-173	Updated Sequence Number: - Updated length - Seperated info for Signs/RDMs
		6-195	Added Towards Refernce Speed Limit.
2.2	15-12-06	A-9 to 10	Added transliteration tables for BEX, BUX, GRX, MAX, RUX, SCX, and UKX.
		A-11 thru 17	Corrected spelling for Russian Transliterated to RUX.
		A-20	Added World Map section.
		D-8 thru 39	Adjusted the spelling for the following ***Chain Names***: MÖVENPICK SHONEY'S INN ALLSUP'S CHRISTY'S MARKET COGO'S CURT'S HAN-DEE HUGO'S HUCK'S FOOD STORE LOVE'S COUNTRY STORE OTTO'S SPARKY'S STEWART'S STUCKEY'S YOUNG'S JOURNEY'S END PRIDE OF BRITAIN DRUMMOND'S GALE'S MR MIKE'S SKIPTON BUILDING SOCIETY
		C-5 thru 7	Added Australia and India to table.

	Date	Page #	Description
		C-5 thru 7	Added India to table. Updated spelling for Turkey, and ***Language Code*** for Thailand and Wales.
		C-28, 38	Added Australia and India to table. Corrected ***Admin Level 4*** for Argentina.
		C-28 thru 50	Added Australia and India to table.
		C-35, 47	Updated spelling for “Sub’ekt” and “Rayon”.
		F-60 thru 63	Added ***Residential Area/Building*** to POI table.
		I-43	Added A12.0 to table.

RH.6 Changes made for v2.3

	Date	Page #	Description
2.3	1-4-07	1-9, 1-13	Added Signs information
		5-15	Added Straight On to Signs layer
		5-71	Added Straight On to Signs layer
		5-129	Added Straight On to Signs layer
		6-7	Added Access Restrictions description
		6-8	Updated Actual Address Per Country table
		6-22	Updated Language Code table
		6-36	Updated Capital table
		6-42	Updated the list of Condition Types
		6-45	Updated Condition Type values
		6-46	Updated Cuisine Type table
		6-61	Added HOV information
		6-66	Updates Feature Type table
		6-68	Updated Building/Landmark Polygons table
		6-108	Updated Language Code table
		6-109	Updated Left Address Format table
		6-111	Updated Summary of Address Format Variations table
		6-122	Updated Postal Code Structure per Country table
		6-125	Updated Left Reference Address table
		6-131	Updated Name Route Type table
		6-142	Updated National Importance table
		6-155	Updated Approved Abbreviations for Names Greater than 35 Characters (U.S. and Canada Only) table
		6-170	Updated Right Address Format table
		6-199	Added Straight On definition
		6-206	Added Through Route definition
		A-7 thru 11	Updated Unicode section to reflect new languages
		D-86 thru 87	Added POI Chains 2654 thru 2709.
		D-88	Added Through Route to table.

	Date	Page #	Description
		C-5	Added new countries to Feature Name (for Feature Type 0907196) per Country table
		C-10	Added new countries to Feature Name (for Feature Type 0908000) per Country table
		C-30	Added new countries to Administrative Level per Country table
		C-45	Added new countries to Boundary Features per Country table
		F-3	Added POI Inclusion per Continent table
		F-6	Updated Listing of POIs by Feature Code table
		H-31	Corrected figure H-37

RH.7 Changes made for v2.4

	Date	Page #	Description
2.4	1-7-07	2-30	Added Colonia and Congestion Zone
		4-9	Added Condition Lane Traversal layer
		4-36	Added Point Addresses layer
		4-37	Added Aggregated Feature layer
		4-37	Added Aggregated Feature Component layer
		4-37	Added Aggregated Feature File Association layer
		4-37	Added POI File Association layer
		5-12	Updated Streets Layer, Added Extended Lane Attributes
		5-18	Added Condition Lane Traversal layer
		5-23	Updated the Admin Name (Polygon_NM) length=80
		5-27	Added Building Height to the Building/Landmark Features layer
		5-32 thru 53	Added Actual Address attributes to all POI related layers
		5-53	Added Point Addresses layer
		5-54	Added Aggregated Feature layer
		5-55	Added Aggregated Feature Component layer
		5-56	Added Aggregated Feature File Association layer
		5-56	Added POI File Association layer
		5-68	Updated Streets Layer, Added Extended Lane Attributes
		5-74	Added Condition Lane Traversal layer
		5-78 thru 82	Updated the Admin Name (Polygon_Name) length=80
		5-86	Added Building Height to the Building/Landmark Features layer
		5-89 thru 118	Added Actual Address attributes to all POI related layers
		5-118	Added Point Addresses layer
		5-119	Added Aggregated Feature layer
		5-120	Added Aggregated Feature Component layer
		5-120	Added Aggregated Feature File Association layer
		5-121	Added POI File Association layer
		5-125	Updated Streets Layer, Added Extended Lane Attributes

	Date	Page #	Description
		5-131	Added Condition Lane Traversal layer
		5-135 thru 137	Updated the Admin Name (Polygon_Name) length=80
		5-140	Added Building Height to the Building/Landmark Features layer
		5-144 thru 164	Added Actual Address attributes to all POI related layers
		5-164	Added Point Addresses layer
		5-165	Added Aggregated Feature layer
		5-166	Added Aggregated Feature Component layer
		5-167	Added Aggregated Feature File Association layer
		5-167	Added POI File Association layer
		6-14	Added Actual Street Name
		6-15	Added Actual Street Number
		6-15	Added Actual Admin Name
		6-15	Added Actual postal Code
		6-15	Added Address
		6-19	Added Aggregated Feature ID
		6-20	Added Aggregated Feature Description
		6-20	Added Aggregation Type
		6-20	Added Aggregated Feature Name
		6-20	Added Aggregated Feature Language Code
		6-29	Added Associated POI ID
		6-29	Added Attachment Type
		6-38	Added Building Height
		6-46	Added Component ID and Component Type
		6-53	Added Destination Lane Number
		6-53	Added Destination Travel Direction
		6-70	Added Feature Code
		6-76	Added From Extended Lanes
		6-78	Added File Name and File Type
		6-159	Added Number of Attachments
		6-159	Added Number of Components
		6-176	Added Point Address ID
		6-197	Added Source Travel Direction

	Date	Page #	Description
		6-194	Added Source Lane Number
		6-208	Added To Extended Lanes
		6-8	Updated Actual Address Per Country table
		6-22	Updated Language Code table
		6-36	Updated Capital table
		6-42	Updated the list of Condition Types
		6-45	Updated Condition Type values
		6-46	Updated Cuisine Type table
		6-66	Updates Feature Type table
		6-68	Updated Building/Landmark Polygons table
		6-86	Added From/Toward Speed Limit attribute description
		6-117	Updated Language Code table
		6-118	Updated Left Address Format table
		6-120	Updated Summary of Address Format Variations table
		6-136	Updated Postal Code Structure per Country table
		6-139	Updated Left Reference Address table
		6-145	Updated Name Route Type table
		6-156	Updated National Importance table
		6-169	Updated Approved Abbreviations for Names Greater than 35 Characters (U.S. and Canada Only) table
		6-184	Updated Right Address Format table
		D-8	Added Condition Value 20 - JUNCTION VIEW to table.
		D-87 thru 88	Added ***Highway Exit*** and ***Transportation Service*** to table.
		D-94 thru 95	Added *Colonia* and *Congestion Zone* to table.
		D-97	Updated ***Language Code*** for Serbian to SRB.
		F-4 and 8	Added Highway Exit

RH.8 Changes made for v2.5

	Date	Page #	Description
2.5	1-10-07	4-37	Added Actual POI Location
		5-12	Added Four-Wheel Drive and Coverage Indicator to Streets layer
		5-17	Modified the CndMod layer
		5-21 thru 29	Added Display Class to Oceans/WaterSeg/WaterPoly/LandUseA layers
		5-39	Added Transit Access Level / Type / Method to TranHubs table
		5-61	Added Actual POI Location (ActPOILoc) layer
		5-74	Added Four-Wheel Drive and Coverage Indicator to Streets layer
		5-84 thru 93	Added Display Class to Oceans/WaterSeg/WaterPoly/LandUseA layers
		5-103	Added Transit Access Level / Type / Method to TranHubs table
		5-128	Added Actual POI Location (ActPOILoc) layer
		5-137	Added Four-Wheel Drive and Coverage Indicator to Streets layer
		5-146 thru 153	Added Display Class to Oceans/WaterSeg/WaterPoly/LandUseA layers
		5-161	Added Transit Access Level / Type / Method to TranHubs table
		5-187	Added Actual POI Location (ActPOILoc) layer
		5-1 thru 186	Corrected Polygon Name, Format: Char(80) Corrected Feature Type, Format: Char(40)
		6-8	Updated Actual Address Per Country table
		6-22	Updated Language Code table
		6-36	Updated Capital table
		6-46	Updated Cuisine Type table
		6-51	Added Coverage Indicator
		6-60	Added Display Class
		6-66	Updates Feature Type table
		6-68	Updated Building/Landmark Polygons table
		6-71	Added Driver Alert
		6-83	Added Four-Wheel Drive
		6-117	Updated Language Code table
		6-118	Updated Left Address Format table
		6-120	Updated Summary of Address Format Variations table

	Date	Page #	Description
		6-136	Updated Postal Code Structure per Country table
		6-145	Updated Name Route Type table
		6-168	Added Passing Restriction
		6-173	Added Protected Overtaking
		6-185	Added Railway Crossing
		6-186	Added Railway Crossing Type
		6-214	Added Straight-on-Sign
		6-219	Added Supplemental Sign Applicable Vehicles
		6-221	Added Supplemental Sign Duration
		6-221	Added Supplemental Sign Pre-Warning
		6-622	Added Supplemental Sign Validity Time
		6-203	Added Signal/Sign Location
		6-226	Added Traffic Light
		6-229	Added Traffic Sign
		6-232	Added Traffic Sign Category
		6-233	Added Traffic Sign Type
		6-236	Added Transit Access Level / Type / Method
		A-14	Updated SIF+ extract variations
		C-8	Added table
		C-33, C-48	Added Brunei
		F-5	Added Address ***Format D***(slash) and ***F***(Alphanumeric-4) to table.
		F-7	Added Display Location X and Y to table.
		F-8	Removed Condition Type 6, Carpool. Added new Condition Types, 16, 17, 18, 19, and 21 to table.
		F-12	Updated Currency Code for Russian Rubles to: RUB
		F-54	Renamed CAMPING to CAMPGROUND.
		F-100 thru 102	Updated table to include the following languages: Arabic, Bulgarian, Modern Chinese, Traditional Chinese, Pinyin, Greek, Indonesian, Macedonian, Russian, Thai, Turkish Transcribed, and Turkish Transliterated.
		F-89 to 99	Added Public Restroom, Highway Exit, Public Transit Stop, Public Transit Stop, Taxi Stand, and Neighbourhood to table.
		F-114	Removed Condition Type 6, Carpool. Added Condition 16 for Modifier 1.
		F-98 thru 99	Added Neighbourhood and Beginning of Chain to table.

	Date	Page #	Description
		F-114 thru118	Added tables for Modifiers 10 thru 12, and 22 thru 28.
		F-122	Added ***Transit Access Level***, ***Transit Access Type***, ***Transit Access Method***, and ***Display Location*** to table.

RH.9 Changes made for v2.6

	Date	Page #	Description
2.6	1-1-08		Traffic Light has been changed to Traffic Signal.
		1-7	Added bullets for Cartographic Country and Cartographic State/Provinces.
		1-10	Added Congestion Zone and Hurricane Prone Area.
		1-18 thru 19	Added bullets for Cartographic Country and Cartographic State/Provinces.
		1-15	Added bullets for Cartographic Country, Cartographic State/Provinces and Colonia.
		2-32	Added Hurricane Prone Area
		5-28	Corrected Admin feature Type to Feature Type
		5-29	Corrected Admin feature Type to Feature Type
		5-58	Corrected Admin feature Type to Feature Type
		5-59	Corrected Admin feature Type to Feature Type
		5-62	Added Risk Prone Area (RiskArea)
		5-95	Added Feature Code
		5-96	Added Feature Code
		5-129	Added Risk Prone Area (RiskArea)
		5-159	Added Admin Feature Code and Geometry
		5-160	Added Admin Feature Code and Geometry
		5-187	Added Risk Prone Area (RiskArea)
		6-8	Updated Actual Address Per Country table
		6-22	Updated Language Code table
		6-36	Updated Capital table
		6-46	Updated Cuisine Type table
		6-66	Updates Feature Type table
		6-68	Updated Building/Landmark Polygons table
		6-78	Added Feature Discription
		6-117	Updated Language Code table
		6-118	Updated Left Address Format table
		6-120	Updated Summary of Address Format Variations table
		6-127	Added Junction View
		6-129	Added Lane Traversal
		6-136	Updated Postal Code Structure per Country table

	Date	Page #	Description
		6-145	Updated Name Route Type table
		6-214	Added Severity Rating
		6-216	Added Special Speed Situation
		6-237	Added Through Route
		6-256	Added Usage Fee Required
		6-258	Added Variable Speed Sign
		A-7	Updated list to include the following languages:Bosnian, Estonian, Latvian, Lithuanian, Moldovan, Montenegrin, Romanian, and Turkish.
		A-10 thru 12	Updated tables to inlude transliteration types for the following languages: Bosnian, Estonian, Latvian, Lithuanian, Moldovan, Montenegrin, Romanian, and Turkish.
		A-13	Updated section for Street Type Representation.
		A-14	Updated section for Unicode Specification.
		C-29	Added Known As Zone table.
		D-8	Added Evacuation Route to table.
		D-96	Added the following Language Codes to table: BOX, ESX, LAX, LIX, MNX, MOX, and RMX.
		D-112	Added Traffic Sign = 22(End of all Restrictions) to table.
		D-114	Added tables for Modifiers 35, 36, and 37.
		D-116	Added Food Types: PIZZA and the Indian regional cuisines.
		F-3 thru 6	Updated summary of POI inclusion.

(This page intentionally left blank)