

IRIS - Local Government Interface Requirements



Main Roads WA

Version 2

28-FEB-2012

Contents

1. PROCESS OVERVIEW	3
1.1 Local Government Export	3
1.1.1 Outputs of LG System Export	3
1.1.2 <LG_Number>_database.txt	3
1.1.3 <LG_Number>_road.txt	4
1.1.4 <LG_Number>_element.txt	4
1.1.5 <LG_Number>_node.txt	6
1.1.6 <LG_Number>_inv.tx	6
1.1.7 <LG_Number>_path.txt	10
1.1.8 <LG_Number>_log.xml	11
1.1.9 Delivery of Data	11
1.2 IRIS Import.	11
1.3 IRIS Export	11
1.3.1 <LG_Number>_Intersection.unl	12
1.3.2 <LG_Number>_road.unl	12
1.3.3 <LG_Number>_rail_crossings.unl	13
1.3.4 <LG_Number>_bridges.unl	15
1.3.5 <LG_Number>_spatial.unl	16
1.4 Local Government System Import	17
2. INTERFACE LIMITATIONS	17
2.1 Agreed Business Conditions	17
3. SUPPLEMENTARY EXPLANATIONS	17
3.1 Element Sequence Number	17

1. PROCESS OVERVIEW

This document provides an overview of the Functional Requirements to facilitate the exchange of road network and asset data between Local Government (LG) Road Asset Management Systems and the Main Roads system, IRIS.

The interface has four core processes, namely;

1. LG System Export,
2. IRIS Import,
3. IRIS Export, and
4. LG System Import

1.1 Local Government Export

This process exports the logical network definition and includes its spatial representation (where available).

Main Roads will request an export of data on a regular basis. This may be annually, bi-annually or tri-annually. Alternatively, an LG can request that an update be processed if there have been a large number of changes to their network.

The export should extract the entire LG network. The export process will exclude any roads not managed by a LG (eg: Main Roads or DEC network). If path and/or cycle ways are modelled as linear networks then these must also be excluded from the export.

For an export to occur, it is recommended that no outstanding network sessions or transactions should exist.

It is also recommended that the LG should not undertake network changes after an export has been initiated and that the corresponding import process should 'unlock' the network making it available again for update.

The export will generate a number of '|' separated text files and if possible a log file. Each file will describe a network component broadly based on the IRIS link-node network model.

The files should be transferred to Main Roads in a zip file called <LG_NUMBER>.zip

1.1.1 Outputs of LG System Export

The following outputs should be generated by the LG system export process and sent to Main Roads;

1. <LG_Number>_database.txt
2. <LG_Number>_road.txt
3. <LG_Number>_element.txt
4. <LG_Number>_node.txt
5. <LG_Number>_inv.txt
6. <LG_Number>_path.txt
7. <LG_Number>_log.xml

1.1.2 <LG_Number>_database.txt

This file defines the Mapping Grid of Australia (MGA) zone in which the LG resides. If there the LG spans more than one zone, then the zone in which the data has been projected should be used.

Required Information	Data Type	Null?
LG_NUMBER	VARCHAR(3)	N
MAP_ZONE	VARCHAR(2)	N

LG_NUMBER: The three digit Local Government identification number.

MAP_ZONE: The two digit MGA zone number.

Sample Extract:

001|50

1.1.3 <LG_Number>_road.txt

This file defines the parent road group. One row is required for each road.

A road cannot have more than one Name, Start or End Terminus.

The file layout is defined below;

Required Information	Data Type	Null?
ROAD_NO	VARCHAR(7)	N
ROAD_NAME	VARCHAR(80)	N
START_TERMINUS	VARCHAR(100)	N
END_TERMINUS	VARCHAR(100)	N

ROAD_NO: Seven digit Road Number comprising three digit LG number prefix and four digit unique road identification number.

ROAD_NAME: Name of Road.

START_TERMINUS: Start point of road. Usually intersecting road.

END_TERMINUS: End point of road. Usually intersecting road or road end.

Sample extract;

0010001|CABLE BEACH RD WEST|GUBINGE RD|CABLE BEACH FORESHORE

0010039|NAPIER TCE|DAMPIER TCE|COGHLAN ST LOT 654

0010042|CARNARVON ST|HAMERSLEY ST|GRAY ST

1.1.4 <LG_Number>_element.txt

The extract defines the elements that exist within a road and their connectivity.

The format of this extract does not mandate that the LG model its network in a link-node manner, only that it exports the data in this form (be it derived or otherwise).

Required Information	Data Type	Null?
ROAD_NO	VARCHAR(7)	N

Required Information	Data Type	Null?
LENGTH	NUMBER(6)	N
CARRIAGEWAY	VARCHAR(1)	N
METRES_START	NUMBER(6, 0)	N
ELEMENT_SEQUENCE_NO	NUMBER(3)	N
ELEMENT_TYPE	VARCHAR(1)	N
START_LG_NODE_ID	NUMBER(9)	N
EXIT_LEG_NO	NUMBER(1)	Y
END_LG_NODE_ID	NUMBER(9)	N
APPROACH_LEG_NO	NUMBER(1)	Y
WELL_KNOWN_TEXT	CLOB	Y

ROAD_NO: Seven digit Road Number comprising three digit LG number prefix and four digit unique road identification number.

LENGTH: Length of element in metres.

CARRIAGEWAY: Each element must have a valid carriageway indicator of S (Single), L (Left) or R (Right) except where the element is a Distance Break (as defined by the ELEMENT_TYPE). An element cannot span carriageways. Each element must have a start and end node.

METRES_START: Each element must have a start value in metres. This measurement is taken from the start of the road. If a road contains Left and Right carriageways then the METRES_START derivation must be continuous across Single and Left carriageways.

A road may have a non-zero start. The METRES_START derivation must be ascending in the direction of the road (from start to end).

ELEMENT_SEQUENCE_NUMBER: Each element must have a Sequence Number. This number defines the order of elements within a road. The first element of a road is assigned a Sequence Number of one (1). Sequence Numbers then increment by 1 in an ascending order along the single and left carriageways, followed by the right carriageway elements in ascending order.

ELEMENT_TYPE: Each element must have an Element Type. The purpose of this attribute is to identify elements that are a Distance Break. If an element is a Distance Break then the Element Type is 'D' otherwise the Element Type is 'S'. A Distance Break may have a length of zero or more metres.

START_LG_NODE_ID and END_LG_NODE_ID. Each network element must have a start and end node. A node must exist at the start and end of each road irrespective of whether another road adjoins this node. A node must exist at the start and end of each carriageway irrespective of whether another road adjoins this node. The Node IDs must be a constant and must have a corresponding entry in the _node.txt file.

EXIT_LEG_NO: The Exit Leg number is the value of the leg exiting the intersection in ascending SLK/road direction. Allowed values are 1 to 8.

APPROACH_LEG_NO: The Approach Leg number is the value of the leg approaching the intersection in ascending SLK/road direction. Allowed values are 1 to 8.

WELL_KNOWN_TEXT: Text string defining the spatial representation of the element. No spatial data is expected for Distance Breaks.

Sample extract (Text wrapped to fit page);

1230001|220|S|0|1|S|1|1|2|1|LINESTRING(383963.7 6458738.38 0, 383956.69 6458747.86 11.79, 383944.05 6458764.48 32.67, 383931.53 6458783.28 55.26, 383920.72 6458806.61 80.97, 383905.93 6458856.7 133.2, 383889.97 6458915.33 193.96, 383883.61 6458937.79 217.31, 383883.46 6458940.48 220)

1230001|210|S|220|2|S|2|5|3|1|LINESTRING(383883.46 6458940.48 0, 383882.58 6458956.32 15.86, 383898.09 6459111.67 171.99, 383898.82 6459115.82 176.2, 383900.98 6459128.63 189.19, 383903.38 6459136.7 197.61, 383907.33 6459148.44 210)

1230001|220|S|430|3|S|3|5|4|1|LINESTRING(383907.33 6459148.44 0, 383911.62 6459161.22 13.48, 383983.63 6459345.98 211.77, 383986.14 6459353.81 220)

1230001|110|S|650|4|S|4|5|5|1|LINESTRING(383986.14 6459353.81 0, 383997.57 6459389.46 37.43, 384001.55 6459403.68 52.2, 384003.26 6459413.92 62.58, 384003.82 6459431.01 79.68, 384002.4 6459451.63 100.35, 384002.01 6459461.27 110)

1230001|100|S|760|5|S|5|5|6|1|LINESTRING(384002.01 6459461.27 0, 383999.26 6459529.48 68.26, 384000.05 6459551.07 89.87, 384001.35 6459561.12 100)

1230001|90|S|860|6|S|6|5|7|5|LINESTRING(384001.35 6459561.12 0, 384007.66 6459610.11 49.4, 384008.05 6459616.59 55.89, 384007.85 6459622.49 61.79, 384007.25 6459625.98 65.33, 383996.46 6459648.16 90)

1.1.5 <LG_Number>_node.txt

This file defines the node requirements. The file layout is defined below;

Required Information	Data Type	Null?
LG_NODE_ID	NUMBER (9)	N
IRIS_NODE_ID	VARCHAR (6)	Y
NODE_DESCRIPTION	VARCHAR(80)	N
EASTING	NUMBER (9,4)	Y
NORTHING	NUMBER (9,4)	Y

LG_NODE_ID: Unique number used in the LG system to identify each node.

IRIS_NODE_ID: Unique number used in IRIS to identify each node. This is not required for new nodes and will be allocated by Main Roads during the import/export process.

NODE_DESCRIPTION: Field used to describe node. Usually intersecting road or dual carriageway details.

EASTING: Geographic coordinate position along x axis.

NORTHING: Geographic coordinate position along y axis.

1.1.6 <LG_Number>_inv.tx

The file defines the inventory that is exported to Main Roads. The file layout is defined below;

Required Information	Data Type	Null?
ROAD_NO	VARCHAR(27)	N
METRES_START	NUMBER(6,0)	N
METRES_END	NUMBER(6,0)	N
CARRIAGEWAY	VARCHAR(1)	Y
XSECT_TYPE	VARCHAR(1)	Y
SURF_TYPE	VARCHAR(1)	Y
FORM_WIDTH	NUMBER(3,1)	Y
PAVE_WIDTH	NUMBER(3,1)	Y
PAVE_YEAR	NUMBER(4)	Y
SURF_WIDTH	NUMBER(3,1)	Y
ORIG_SURF_YEAR	NUMBER(4)	Y
LATEST_RESEAL_TYPE	VARCHAR(2)	Y
RESEAL_YEAR ₁	NUMBER(4)	Y
RESEAL_YEAR ₂	NUMBER(4)	Y
SURF_TREATMENT	VARCHAR(2)	Y
TREATMENT_YEAR	NUMBER(4)	Y
DRAINAGE_LEFT	VARCHAR(3)	Y
DRAINAGE_RIGHT	VARCHAR(3)	Y
SPEED_LIMIT	NUMBER(3)	Y
ROAD_HIERARCHY	VARCHAR(1)	Y
TRAFFIC_COUNT	NUMBER(6)	Y
TRAFFIC_YEAR	NUMBER(4)	Y
GENERAL_TERRAIN	VARCHAR(2)	Y
SPECIAL_USE	VARCHAR(2)	Y

The required output is a 'merged' view of the inventory along a road. I.e. One row will contain multiple asset types.

For the purposes of this extract an item of inventory cannot span more than one carriageway type (eg: single and left). This means that item locations must be split at a change in carriageway even though adjacent chunks may be homogenous. However, an item can span more than one element of the same carriageway type.

Where an attribute has an associated domain (list of values), the 'value' and not 'meaning' of the domain must be output in the extract.

No inventory can be held against a Distance Break hence they are excluded from this output.

As previously mentioned, only data for roads managed by the LG should be exported. If a road has no inventory, no row should be exported.

ROAD_NO: Seven digit Road Number comprising three digit LG number prefix and four digit unique road identification number.

METRES_START: Start location of inventory in metres from start of road.

METRES_END: End location of inventory in metres from start of road.

CARRIAGEWAY: Carriageway indicator of either S, L or R (no data is expected for Distance Breaks).

XSECT_TYPE: Formation characteristics of the road. List of values -

Value	Description
0	Unbuilt
1	Unformed
2	Formed
3	Paved
4	Sealed with no kerbing
5	Sealed with kerbing one side
6	Sealed with kerbing both sides

SURF_TYPE: Surface Material Type of original seal. List of values -

Value	Description
UNSL	Unsurfaced
PSEAL	Primer Seal
1CHIP	Single Seal
2CHIP	Double Seal
ASPH	Asphalt
CONC	Cement Concrete
BRCK	Brick Paving
SLRY	Slurry Seal
RUBR	Rubber Reseal

FORM_WIDTH: Width of the underlying formation work on which the pavement layer is constructed.

PAVE_WIDTH: Width of the pavement layer.

PAVE_YEAR: The year the road pavement was constructed or underwent substantial reconstruction.

SURF_WIDTH: Width of the sealed surface of the road.

ORIG_SURF_YEAR: Year of the first sealed surface.

LATEST_RESEAL_TYPE: Current surface type. List of values as per SURF_TYPE.

RESEAL_YEAR1: The latest reseal year if there is no RESEAL_YR_2. The second last Reseal if there is a RESEAL_YR_2.

RESEAL_YEAR2: The latest reseal year if there is a RESEAL_YR_1.

SURF_TREATMENT: The most recent treatment applied to an unsealed road. List of values -

Value	Description
UTR	Untreated
GRD	Maintenance Grade
RSH	Resheet
ENZ	Enzyme Additive

ENR	Bitumen Enrichment
------------	--------------------

TREATMENT_YEAR: The year of the most recent unsealed treatment.

DRAINAGE_LEFT: The type of surface water channel on the left side of the road. List of values -

Value	Description
UKN	Unknown
ODR	Open Drain
TBD	Table Drain
UGP	Underground Pipe
SWC	Depressed
DBK	Drain Behind Kerb
KBB	Barrier Kerb

DRAINAGE_RIGHT: The type of surface water channel on the right side of the road. List of values as per DRAINAGE_LEFT.

SPEED_LIMIT: Legal speed limit for road section.

ROAD_HIERARCHY: Road category based on a number of criteria related to the use of the road. List of values -

Value	Description
P	Primary Distributor
DA	Distributor A
DB	Distributor B
A	Access Road
LD	Local Distributor
RD	Regional Distributor

TRAFFIC_COUNT: Most recent traffic count measured using Average Annual Daily Traffic.

TRAFFIC_YEAR: Year of most recent traffic count.

GENERAL TERRAIN: Predominant characteristics of the surrounding land. List of values -

Value	Description
0	Unknown
1	Flat
2	Undulating
3	Hilly
4	Mountainous

SPECIAL_USE: Allows the allocation of specific use information to a road. List of values -

Value	Description
B	Bus Lane
IA	Indigenous Access
I	Industrial
L	Laneway
R	Ramp
RT	Rotary

1.1.7 <LG_Number>_path.txt

The file defines the path statistics that are to be exported to Main Roads. The file layout is defined below:

Required Information	Data Type	Null?
LG_NUMBER	VARCHAR(3)	N
PATH_TYPE	VARCHAR(2)	N
LENGTH_OF_POP_ROAD	NUMBER(7)	Y
LENGTH_OF_POP_OTHER	NUMBER(7)	Y
LENGTH_OF_DUP_ROAD	NUMBER(7)	Y
LENGTH_OF_DUP_OTHER	NUMBER(7)	Y
AREA_OF_POP_ROAD	NUMBER(8)	Y
AREA_OF_POP_OTHER	NUMBER(8)	Y
AREA_OF_DUP_ROAD	NUMBER(8)	Y
AREA_OF_DUP_OTHER	NUMBER(8)	Y

Where POP = Pedestrian Only Path and DUP = Dual Use Path.

A single row of summary data is required for each Path Type. Where a given Path Type has no length and no area, exclude from the extract.

LG_NUMBER: Three digit unique identification number for the LG.

PATH_TYPE: The type of material used in the construction of the path. List of values -

Value	Description
UN	Unknown
BT	Bituminous Seal
AP	Asphalt
CS	Cement Slabs
CC	Cement Concrete
BP	Brick Paving
GR	Gravel
GK	Grey Slabs Thick
GN	Grey Slabs Thin
CK	Coloured Slabs Thick
CN	Coloured Slabs Thin
SP	Special

LENGTH_OF_POP_ROAD: Total length of pedestrian only paths adjacent to a road.

LENGTH_OF_POP_OTHER: Total length of pedestrian only path not adjacent to a road.

LENGTH_OF_DUP_ROAD: Total length of dual use path adjacent to a road.

LENGTH_OF_DUP_OTHER: Total length of dual use path not adjacent to a road.

AREA_OF_POP_ROAD: Total area of pedestrian only paths adjacent to a road.

AREA_OF_POP_OTHER: Total area of pedestrian only paths not adjacent to a road.

AREA_OF_DUP_ROAD: Total area of dual use paths adjacent to a road.

AREA_OF_DUP_OTHER: Total area of dual use paths not adjacent to a road.

1.1.8 <LG_Number>_log.xml

A log file containing all network operations for the LG during the period since the last Main Roads update. This file is in the format to be provided by Roman II. Please contact IRIS Support at Main Roads at iris.support@mainroads.wa.gov.au to discuss other options if this requirement cannot be met.

Indicative format:

```
<change>
  <action>
    <type>Add Road</type>
    <road_id>5039</road_id>
    <road_name>NEWMAN ROAD</road_name>
  </action>
</change>
<change>
  <action>
    <type>Add Carriageway</type>
    <road_id>5039</road_id>
    <road_name>NEWMAN ROAD</road_name>
    <cway>2509</cway>
    <cway_start>0</cway_start>
    <cway_end>300</cway_end>
    <cway_start_name>VERNER ROAD</cway_start_name>
    <cway_end_name>END</cway_end_name>
  </action>
```

1.1.9 Delivery of Data

Files should be transferred by email to AGI@mainroads.wa.gov.au

1.2 IRIS Import.

This is an internal Main Roads process. The specification, design and development of this process has been undertaken by Main Roads.

In summary, the process will identify differences between the LG network stored in IRIS and the data provided by the LG in the files detailed above. IRIS will then be updated, at the discretion of Main Roads, to match the LG data. The process will involve a mix of manual and automated processing.

Main Roads will only stop the import process and return the files provided by the LG if there are critical differences which prevent the import process from continuing. The LG may be contacted during the import process to provide clarification on the data provided.

1.3 IRIS Export

Main Roads will export the following data in '|' delimited text file format with the extension .unl. The files will be in a zip file called <LG_Number>.zip

1. The IRIS node ID and the Local Government equivalent.
2. Attributes associated with the Grants Commission process.

3. The Functional Class of the road,
4. Rail Crossings,
5. Bridges, and
6. The spatial representation of the road network (for all State and Local roads within the relevant Local Government’s boundaries). A spatial feature will be output for each datum (excluding Distance Breaks). CJN have indicated that the process to associate a spatial feature with its logical counterpart will be a manual exercise.

1.3.1 <LG_Number>_Intersection.unl

A file containing each IRIS node ID and its corresponding LG node ID.

Required Information	Data Type	Null?
IRIS_NODE_ID	CHAR(6)	N
RAMM_NODE_ID	NUMBER(6)	Y

Sample extract:

009872|345

1.3.2 <LG_Number>_road.unl

Attributes associated with the Grants Commission process and the Functional Class of the road will be exported in the following format. These fields should be protected from update by Local Government system users:

Required Information	Data Type	Null?
ROAD_NO	CHAR (7)	N
CARRIAGEWAY	CHAR(1)	N
METRES_START	NUMBER(6, 0)	N
METRES_END	NUMBER(6,0)	N
BUAIND	NUMBER(6, 0)	N
ACCOUNT	NUMBER(6, 0)	N
FUNDWT	NUMBER(6, 0)	N
FUNCLASS	NUMBER(6, 0)	N

ROAD_NO: Seven digit Road Number comprising three digit LG number prefix and four digit unique road identification number.

CARRIAGEWAY: Carriageway indicator of either Single, Left or Right.

METRES_START: Start location in metres from start of road.

METRES_END: End location in metres from start of road.

BUIND: Built up area indicator. List of values -

Value	Description
1	Central Business District
2	Built Up
3	Not Built Up

ACCOUNT: Road accountability. List of values -

Value	Description
1	Federal Government
2	Main Roads
3	LG
4	DEC Forest
5	DEC National Park
6	Private

FUNDWT: Funding factor. List of values -

Value	Description
1	Residential - Other
2	Distributor - Industrial
3	Ineligible For Funding

FUNCLASS: Functional Class. List of values -

Value	Description
1	Inter Capital City Highway
2	Rural Highway
3	Main Road
4	Rural Local Road
5	Rural Special Purpose Road
6	Urban Highway
7	Significant Urban Local Road
8	Urban Local Road
9	Urban Special Purpose Road

1.3.3 <LG_Number>_rail_crossings.unl

Attributes associated with Rail Crossings on Local Government roads will be included in this file.

Required Information	Data Type	Null?
ROAD_NO	CHAR (7)	N
CARRIAGEWAY	CHAR(1)	N
METRES	NUMBER(6, 0)	N
MRPOINT	CHAR (5)	N
PROTECTION_TYPE	CHAR (1)	Y

TRACKS	NUMBER(1,0)	Y
PED_FACILITY	CHAR (1)	Y
OPERATOR	CHAR (2)	Y
IN_USE	CHAR 1)	Y
EASTING	NUMBER(12, 4)	N
NORTHING	NUMBER(12, 4)	N

ROAD_NO: Seven digit Road Number comprising three digit LG number prefix and four digit unique road identification number.

CARRIAGEWAY: Carriageway indicator of either Single, Left or Right.

METRES: Location in metres from start of road.

MRPOINT: Unique identification number for the rail crossing.

PROTECTION_TYPE: Warning signage associated with the rail crossing. List of values -

Value	Description
1	Unsigned
2	Give Way Signs
3	Stop Signs
4	Flashing Lights
5	Boom Barriers

TRACKS: The number of tracks at the rail crossing.

PED_FACILITY: Pedestrian facilities associated with the rail crossing. List of values -

Value	Description
1	Footpath
2	Footpath and Bells
3	Maze
4	Maze and Bells
5	Maze, Bells and Signal
6	Maze, Bells, Signal and Automatic Gates

OPERATOR: The body responsible for the rail crossing.

Value	Description
1	Australian RAIL Track Corporation
2	BHP
3	Boulder Loop Line
4	Carnarvon Light Railway
5	Hamersley Iron
6	Hotham Valley Tourist Railway
7	Pemberton Tramway Company
8	Robe River Iron Associates
9	Western Australian Government Railways
10	WestNet Rail Pty Ltd

EASTING: Geographic coordinate position along x axis.

NORTHING: Geographic coordinate position along y axis.

1.3.4 <LG_Number>_bridges.unl

Attributes associated with Bridges on Local Government roads will be included in this file.

Required Information	Data Type	Null?
ROAD_NO	CHAR (7)	N
CARRIAGEWAY	CHAR(1)	N
METRES	NUMBER(6, 0)	N
TYPE	CHAR(4)	N
LENGTH	NUMBER(6,2)	Y
EASTING	NUMBER(12, 4)	N
NORTHING	NUMBER(12, 4)	N
MRPOINT	CHAR(5)	N
FUNCTION	INTEGER(2)	Y
PURPOSE	INTEGER(2)	Y
SPANS	INTEGER(4)	Y
WIDTH	NUMBER(6,2)	Y
LIMIT	INTEGER(5)	Y
CROSSING	CHAR(30)	Y
DATE_BUILD	INTEGER(4)	Y

ROAD_NO: Seven digit Road Number comprising three digit LG number prefix and four digit unique road identification number.

CARRIAGEWAY: Carriageway indicator of either Single, Left or Right.

METRES: Location in metres from start of road.

TYPE: Type of structure. List of values -

Value	Description
TMBR	Timber
RCBR	Reinforced Concrete
STBR	Steel
SIGA	Sign Gantry
PCBR	Prestressed Concrete
SCBR	Steel Concrete Composite
CULV	Culvert
THBR	Timber Hybrid
TUNL	Tunnel

LENGTH: Length in metres of bridge

CARRIAGEWAY: Carriageway indicator of either Single, Left or Right.

METRES: Location in metres from start of road.

EASTING: Geographic coordinate position along x axis.

NORTHING: Geographic coordinate position along y axis.

MRPOINT: Main Roads bridge number.

FUNCTION: Primary function of bridge: List of values -

Value	Description
1	Road Bridge
2	Pedestrian Bridge
5	Rail Bridge
6	Road Tunnel
7	Rail Tunnel
8	Road and Rail Bridge

PURPOSE: Purpose of bridge. List of values -

Value	Description
1	Over Water
2	Over Railway
3	Over Road
4	Over Road and Rail
5	Over Road and Water
6	Over Rail and Water
7	Ramp
8	Subway
9	Stock Underpass
10	Pedestrian Underpass
11	Under Rail
12	Under Road

SPANS: Number of spans.

WIDTH: Width between kerbs

LIMIT: Gross load limit.

CROSSING: Crossing description.

DATE_BUILD: Date constructed.

1.3.5 <LG_Number>_spatial.unl

Attributes that provide the spatial representation of the network are included in this file.

Required Information	Data Type	Null?
ROAD_NO	CHAR (7)	N
ELEMENT_SEQUENCE_NO	NUMBER(3)	N
WELL_KNOWN_TEXT	CLOB	N

ROAD_NO: Seven digit Road Number comprising three digit LG number prefix and four digit unique road identification number.

ELEMENT_SEQUENCE_NUMBER: Each element must have a Sequence Number. This number defines the order of elements within a road. The first element of a road is assigned a Sequence Number of one (1). Sequence Numbers then increment by 1 in an ascending order along the single and left carriageways, followed by the right carriageway elements in ascending order.

WELL_KNOWN_TEXT: Text string defining the spatial representation of the element.

1.4 Local Government System Import

This is the responsibility of the Local Government.

2. INTERFACE LIMITATIONS

1. The process does not mandate that the LG and Main Roads networks remain identical.
2. The process will not transfer the IRIS leg number to the LG software.

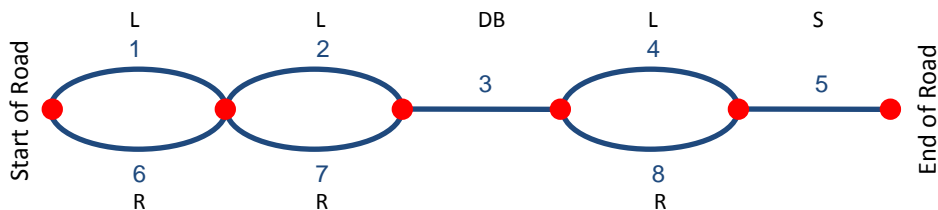
2.1 Agreed Business Conditions

1. Main Roads will not have the access or capability to update any network or inventory data within the LG system.
2. It is up to the Local Government to manage any updates to their system that may be required during the time that Main Roads are processing their data.

3. SUPPLEMENTARY EXPLANATION

3.1 Element Sequence Number

As previously stated, the Element Sequence Number is to conform to Main Roads carriageway precedence rules. This means that elements are numbered sequentially from the start of the road for connected single and left carriageways. The elements on the right carriageways are numbered last. Note in the example below that the first right carriageway is numbered '6'.



- Node
- L Left Carriageway
- S Single Carriageway
- R Right Carriageway
- DB Distance Break
- 1 Element Sequence No.