Landgate Cadastre (SLIP) Data Dictionaries

- Cadastre (Point) (LGATE-215)
- Cadastre (Line) (LGATE-216)
- Cadastre (Polygon) (LGATE-217)
- Retired Cadastre (Polygon) (LGATE-219)
- Lodged Cadastre (Point) (LGATE-220)
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- Lodged Cadastre (Polygon) (LGATE-222)
- Cadastral Control (Point) (LGATE-224)
- Cadastral Control (Line) (LGATE-225)

Excludes "LAND" based cadastre layers:

- Cadastre (Land) (LGATE-218)
- Lodged Cadastre (Land) (LGATE-223)

Date: March 2024,

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Version: 2.0

landgate.wa.gov.au

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Amendment Register

Version	Status	Date	Author	Change description
Version 1.0	Final	18/06/2018	Todd Harris	Modified for SLIP, inclusion of extra known issues with examples. Modified existing examples
Version 1.1	Final	10/06/2020	Todd Harris	• Amendment of appropriate use • Known issues Retired polygons. • Addition of shapefile field names
Version 1.3	Final	April 2020	Todd Harris	Additions to polygon usage_code as a result of Strata Titles Act Reform
Version1.4	Final	June 2020	Todd Harris	Addition of missing survey status code "LS"
Version 1.5	Final	April 2021	Todd Harris	Amendment of Datum Source to GDA2020
Version 1.6	Final	Oct 2021	Karen Fletcher	Addition of construct_type table of values
Version 1.7	Final	Oct 2021	Todd Harris	Reformatting, shapefile field names removed. Community Titles Act 2018 changes New survey status codes
Version 1.8	Final	Oct 2023	Ruth Griffith	Update to visualise dual usage codes for road depiction in cadastral data – refer 1.6.7
Version 1.9	Final	Feb 2024	Karen Fletcher	Update of Polygon Usage Code – Water, Marine Park
Version 2.0	Final	Mar 2024	Karen Fletcher	Update lga_names field length to 200 characters across all data layers

1 OVERVIEW

1.1 Document purpose

This document describes the data contained within the Landgate SLIP Cadastral Subscription service as stored in the SLIP datastores and does not describe the web service configurations.

This document does not describe the Cadastre (Land) based datasets. Please refer to the relevant data dictionary describing "LAND" based cadastral data.

1.2 Cadastral Data (SLIP)

The cadastral data delivered via SLIP has been optimised for web service delivery and may contain extra information than those data formats as delivered via Landgate's Geospatial Team.

Cadastre (cadastral) data is information relating to parcel boundaries. The data forms part of the Spatial Cadastral Database (SCDB) which stores spatially defined cadastral and other related information.

The main spatial elements are:
- Polygons (are building blocks of parcels of land)
- Lines (includes arcs and strings)
- Points

The information includes lodged, approved and retired cadastral boundaries and associated cadastral control data. Data families, usage types, view scales and usage codes have been included to assist visual display, symbolisation and annotation of spatial features.
The main spatial elements have unique identification numbers and textual attributes. Polygon Identification Numbers (polygon_number), land_id's along with pi_type and pi_parcel attributes provide a linkage to Tenure information which includes property ownership and street addresses.

1.3 Datum

Source Datum: GDA2020 [epsg: 1168]
The Spatial Cadastral Database (SCDB) and related data is stored and maintained in GDA2020 [epsg: 1168] datum.

Supplied Datum (SLIP): GDA94 [epsg: 4283]:
Data is extracted from the SCDB, transformed and delivered to SLIP in GDA94 datum. This will continue until such time that SLIP has the capability to fully accommodate the GDA2020 datum. All co-ordinate pair attribution information within the data has also been transformed to GDA94.

For the Supplied Datum, the following GDA2020 – GDA94 transformation methodology has been employed:
For mainland Australia and adjacent offshore islands - **NTv2 national conformal + distortion transformation grid [EPSG: 8447]** have been employed **–** refer below for grid extent.

For points outside of the *NTv2 national conformal + distortion transformation grid* above, such as Cocos / Keeling and Christmas Islands, ***7-parameter similarity (Helmert) transformation (conformal) [EPSG: 8048]*** has been employed.

For more information on GDA2020 and related datum transformation methods please refer to https://www0.landgate.wa.gov.au/business-and-government/specialist-services/geodetic/gda2020

1.4 Appropriate use

Cadastral data supplied by Landgate, is a digital representation of Western Australia's cadastral network.

Cadastral data extracted from the SCDB to be used for information purposes only and is not guaranteed. The information should not be relied upon without further verification from the original documents. Where the information is being used for legal purposes then the original documents must be searched for all legal requirements.

1.5 Spatial Elements and Families

Landgate extracts cadastral spatial elements from the Spatial Cadastral Database in spatial element feature types of:

- Polygon (land)
- Line (arcs, strings)
- Point

Within these spatial elements are families of data – which are logical groupings of a set of spatial elements. The elements and the data families available for those elements have been identified in the table below.

Family	Spatial Element
Cadastre	Polygon
	Line
	Point
Control	Line
	Point

1.6 Known Issues

The below issues must be considered when using the Cadastral dataset.

1.6.1 Crown vs Freehold Land Types (Polygon)

> The **land_type** attribute **should not be used** for differentiating between freehold and Crown land.

The values of "CROWN" and "FHOLD" only refers to the type of lot (subdivision) and not the ownership or land tenure type.

Where the land_type of a polygon is "CROWN" and is not dominated by a State administered tenure type (eg: reserve, crown lease, Unallocated crown land identifier etc) then it may be considered freehold land.

However, some freehold land is owned by a State Government entity (Commissioner of Main Roads or Minister for Housing for instance). Consider the below snippet from the SLIP Tenure layer (which should be used for determining ownership types).

land_name	150
land_type	FHOLD
latitude	-31.948049
lease_document_identifier	Null
lease_holder	Null
level_details	Null
lga_names	VINCENT,CITY OF PERTH
locality	Null
longitude	115.873794
lot_number	150
lot_prefix	
OBJECTID	1884552
organisation_code	MRD
organisation_type	S
part_lot_indicator	N
pi_parcel	P020932 150
pi_type	1
polygon_number	11568300
postcode	Null
premise_details	Null
proprietor_name	COMMISSIONER OF MAIN ROADS

In this example (SLIP Tenure):
    land_type = FHOLD
    organisation_type = S (state)
    proprietor_name = COMMISSIONER OF MAIN ROADS
ie: Freehold land but owned by the State of WA. This cannot be determined from the Cadastral data.

1.6.2   Easements

Where an easement comprises the full extent of a single lot/land parcel, an individual easement polygon is not captured/generated ie: if an easement covers the full extent of a land parcel / lot, a second polygon will not exist in the data that defines or indicates that an easement is apparent. This can only be attained by viewing the original documentation being the survey document and/or Certificate of Title.

Many easements that are not captured on a survey document may not be apparent in the SCDB at this time. Those easements that are not captured on a survey document can only be identified by viewing the Certificate of Title with the extent of the easement defined in the Easement document.

1.6.3 Self-intersecting polygons

The capture of cadastre does not necessarily follow sound GIS principals for polygon geometries. Cadastral land parcels will sometimes intersect. Consider the below example where the polygon self-intersects (circled red) which is not a data anomaly and does occur from time to time in cadastral boundary definition.
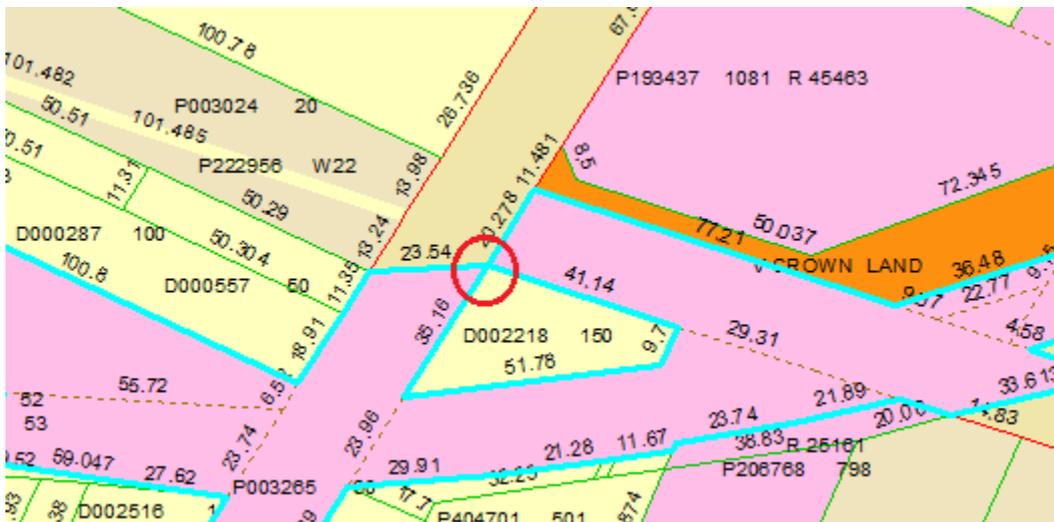
1.6.4 Dual numbering system – pi_parcel / alternate_pi_parcel

Landgate has maintained a Spatial Cadastral Database (SCDB) in various forms for over 20 years. Since 2002 the SCDB resides within our corporate system "SmartPlan".
Traditionally the PI type referred to how a lot was created; either through a Freehold (PI type 1) or a Crown (PI type 2) subdivision, under the 'Transfer of Land Act' or 'Land Act' respectively.

Current Procedure

Since the 'Single Registration' system has been adopted, all new land parcels are created as 'Lot on Plan', i.e., only PI type 1 lots. There are no new crown allotments, or PI type 2 lots being created.
In our current cadastral database, the "PI Type" is more to do with the name of the land parcel rather than the type of land being represented.

Please refer to the example below of a portion of York Town site. Lot 172 was created as a Crown Lot on Crown Town site Plan York 14A (now called DP223258) and was originally a PI type 2 lot (Crown Allotment).

Lot 172, partially subdivided, has since been renamed as 'Lot 172 on DP223258'; this now makes it a PI type 1, but the Land Type remains CROWN (Crown subdivision) indicated by the beige colouring below.

Lots 35 & 36 were created as lots on plan (freehold subdivision) with a PI type 1 and a Land Type of FHOLD (Freehold subdivision- shown yellow). On the Certificate of title these parcels are referred to as 'Lots 35 & 36 on Diagram 54762'. (These lots would have been part of the original Crown Lot 169, which has since been completely subdivided.)

Please refer to the info pop-ups in the following page (ArcMap) for Lot 171 (original lot unchanged) & 172 (partial subdivision). This shows attributes stored for land parcels, please note the pi_parcel and alternate_pi_parcel and pi_types for each.
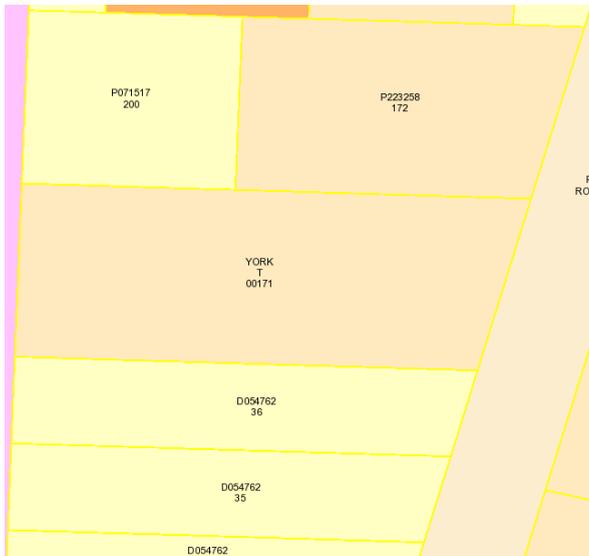
Field	Value
alternate_pi_parcel	YORK T 00172
alternate_pi_type	2
area_derivation_indicator	Null
area_derivation_method	KY
area_lg	2563
calculated_area	2553.306
centroid_coordinate_method	M
centroid_latitude	-31.882769
centroid_longitude	116.768463
created_date	12/11/1992
crown_survey	TP YORK 14A
land_id	3975698
land_name	172
land_type	CROWN
last_modified_date	6/15/2011
lga_names	YORK
lot_number	172
lot_prefix	
OBJECTID	564861
part_lot_indicator	N
pi_parcel	P223258 172
pi_type	1
polygon_number	453430
SHAPE	Polygon

Field	Value
alternate_pi_parcel	YORK T 00171
alternate_pi_type	2
area_derivation_indicator	Null
area_derivation_method	KY
area_lg	3898
calculated_area	3888.562
centroid_coordinate_method	M
centroid_latitude	-31.883125
centroid_longitude	116.768175
created_date	12/11/1992
crown_survey	Null
land_id	2056415
land_name	YORK Town Lot / Lot 171
land_type	CROWN
last_modified_date	10/8/2015
lga_names	YORK
lot_number	Null
lot_prefix	Null
OBJECTID	564858
part_lot_indicator	N
pi_parcel	YORK T 00171
pi_type	2
polygon_number	453426
SHAPE	Polygon

1.6.5 Retired Cadastre

Cadastral data that is retired from the current SCDB due to ongoing subdivisional activity, is not maintained. This means that where a spatial adjustment has been made to the current cadastre, the retired polygons have not been spatially adjusted to align with current cadastral boundaries and will likely not align where they once did.

Further, retired cadastral boundaries have only been retained since the SCDB maintenance environment was upgraded in March 2002. Polygons that were retired from the current cadastral data prior to that date have not been retained.

1.6.6 Creation of Multiple Shape Features

SCDB data exported will result in the creation of multiple feature records where multiple pi_types or pi_parcel records exist for a single geometry (polygon). This occurs due to the need to create unique records for each pi_type or pi_parcel.
The following graphical examples are provided to help users of SCDB cadastral data to understand how these multiple features are created.

1.6.6.1 Example 2: 1 Freehold Lot, 1 polygon
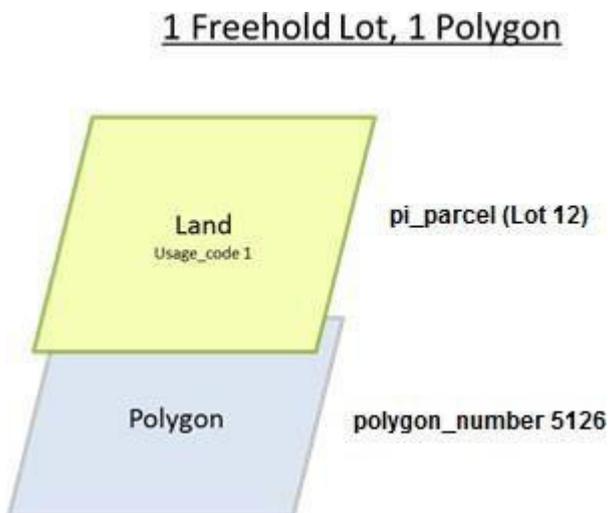
A single feature is created.

1.6.6.2 Example 3: Building Strata

Four (4) polygon features are created with the same polygon number. One for the Strata Parent Lot

Building Strata

Land Usage_code 19 — *pi_parcel* = S067412   1

Land Usage_code 19 — *pi_parcel* = S067412   2

Land Usage_code 19 — *pi_parcel* = S067412   3

Land Usage_code 1 — *pi_parcel* = P047161 746

Polygon — *polygon_number* = 11487538
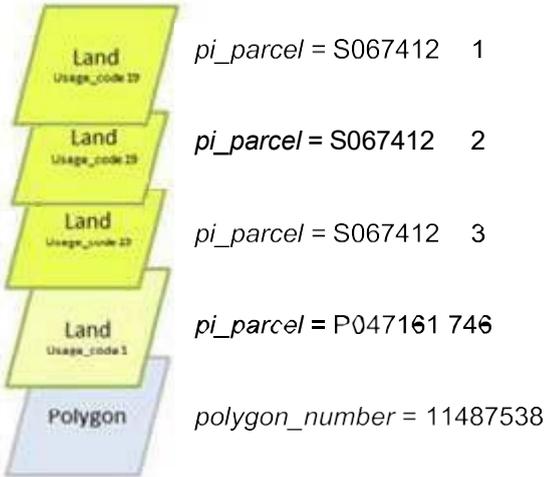
4 polygon features with the same *polygon_number*.
A single polygon feature for the freehold subdivision lot (*pi_type* = 1)
and
3 additional polygon features showing each of the Building Strata lots (pi_type = 1 also) attached to the same *polygon_number*.

(pi_parcel = P047161 746) and one for each Strata Lot

1.6.6.3 Example 4: Survey Strata

Survey Strata

Land Usage_code 16   Land Usage_code 16   Land Usage_code 16 — *pi_parcel* = S061438, lots 1, 2, 3 (*pi_type* = 1)

Polygon   Polygon   Polygon — *polygon_number* = 12046369, 12046370, 12046371

Land Usage_code 22 — *pi_parcel* = P002646 330 (*pi_type* = 1)

Polygon — *polygon_number* = 171388
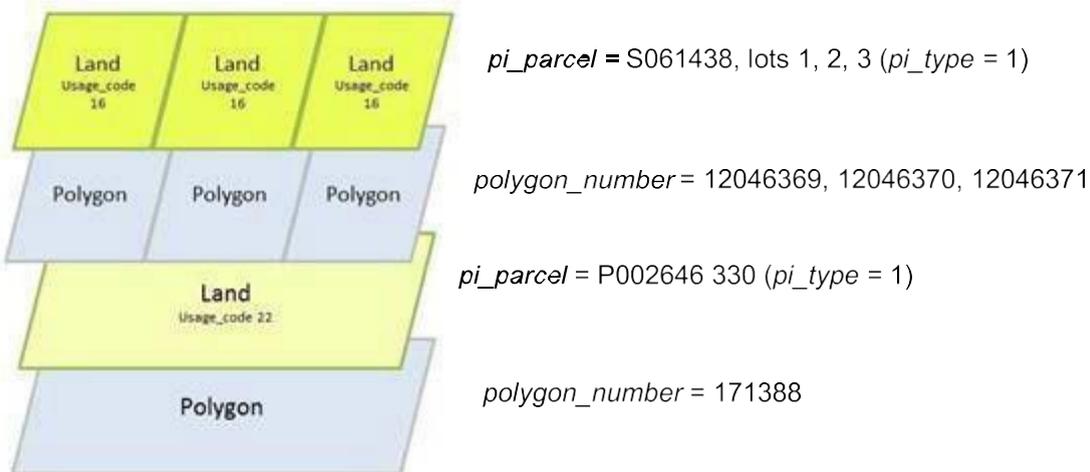
1 polygon created to show the extent of the "parent" lot of the Survey Strata.

3 separate polygons are also created for the extent of each Survey Strata lot.

Four (4) separate features will be created. One will be for the parent strata lot and one feature for each survey strata lot. Including any Common Property lots where they exist.

1 Crown Lot, 1Reserve, 1 Polygon

pi_parcel = R40720 (*pi_type* = 3)

pi_parcel = P013835 11172 (*pi_type* = 1)
alternate_pi_parcel = SWAN L11172

polygon_number = 716097
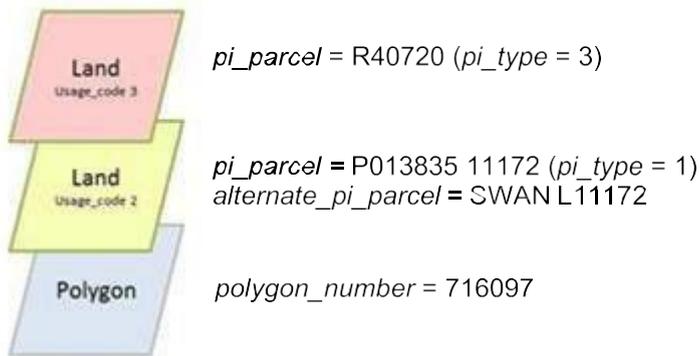
Two (2) polygon features are created here. One polygon feature for each of the *pi_type*s.

1.6.6.5 Example 6: 2 Crown Allotments, 2 Reserves and 1 Lease

pi_parcel = LRL L352158

pi_parcel = LRL L352158

pi_parcel = R17938

pi_parcel = R17938

pi_parcel = P034336 210
*alternate_pi_parcel* = NGALBL 00210

pi_parcel = P194131 103
alternate_pi_parcel = NGALBL 00103

polygon_number = 11085933

polygon_number = 786332
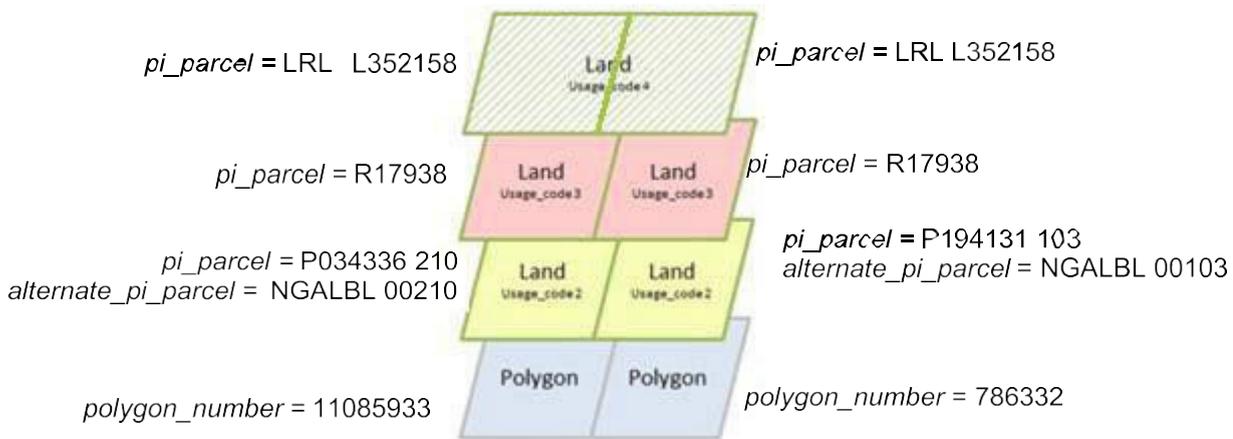
Six (6) separate features will be created. One for each pi_parcel (3) per polygon (2).

In the above example, the Lease whilst being 1 "land" comprises 2 polygons and therefore 2 polygon features and same pi_type and pi_parcel will be created. The Reserve is also treated the same way.

Consider a Pastoral Lease "land," it may comprise many polygons but is considered 1 "land" and should be treated as such when interrogating the data. Polygons (of the same pi_parcel and same land_id) can be merged (using land_id) to form a single "land" multi-polygon record in the data, however the polygon_number to land_id relationship will be lost.

Also, in the above example, the Lease is the dominant land usage (usage_code = 4), the reserve is the second most dominant land usage (usage_code = 3) with the type 2 pi_parcel being the subservient land (usage_code = 2).

3 Polygons, 3 Crown Lots, 1 Reserve

3 separate polygons without common boundaries and with 2 different *usage_codes and 2 pi_type*s for each polygon.

pi_parcel = R17938 (*pi_type* = 3)

pi_parcel = P254227 264 (*pi_type* = 1)
alternate_pi_parcel = CUE T 00264

polygon_number = 716097

pi_parcel = R17938 (*pi_type* = 3)

pi_parcel = P254227 259 (*pi_type* = 1)
alternate_pi_parcel = CUE T 00264

polygon_number = 716096
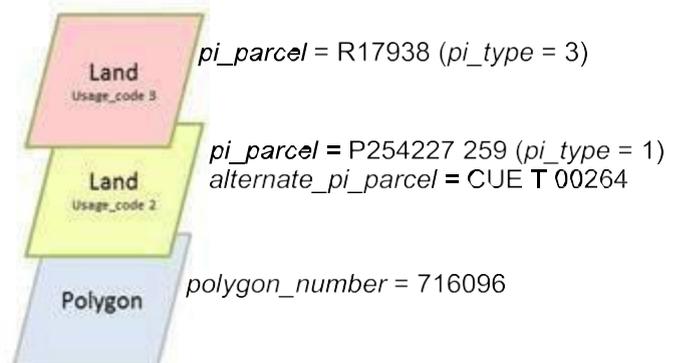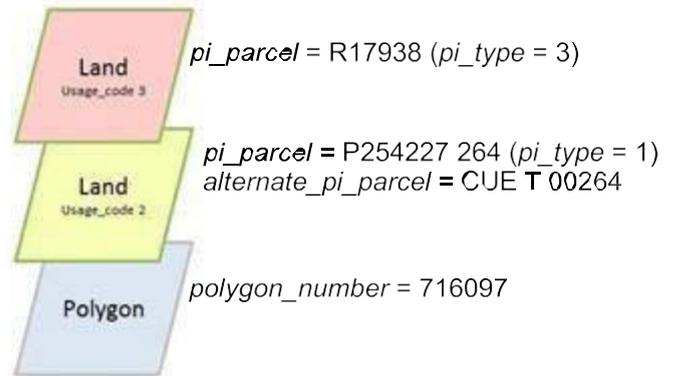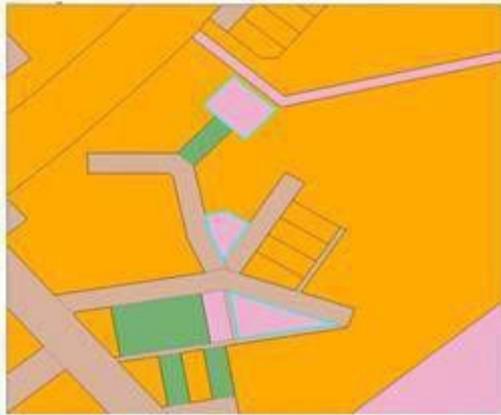
pi_parcel = R17938 (*pi_type* = 3)

pi_parcel = CUE T 00268
(*pi_type* = 2)

polygon_number = 716099
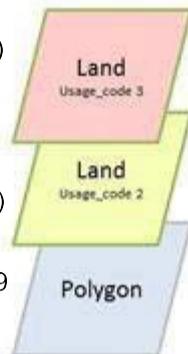
Six (6) separate features will be created for the three (3) highlighted geometries (– one for each Usage Code.

In the above example, the Reserve is the dominant land usage (usage_code = 3) with type 1 & 2 pi_parcels being the subservient land (usage_code = 2).

> **Note:** The cadastral polygon dataset does not combine polygons of the same "land" (*pi_parcel*) into a single multi-polygon record. This presents a risk to users where it is not obvious that the extent of "land" comprises multiple non-contiguous polygons/lots. This occurs regularly within the dataset. Polygons (of the same *pi_parcel*) can be merged (using *land_id*) to form a single "land" multi-polygon record in the data to mitigate risk.

1 Freehold Lot partially covered by 1 Easement

pi_parcel = Null (*pi_type* = Null)

polygon_number = 716096

pi_parcel = P050538 889 (*pi_type* = 1)

polygon_number = 716096
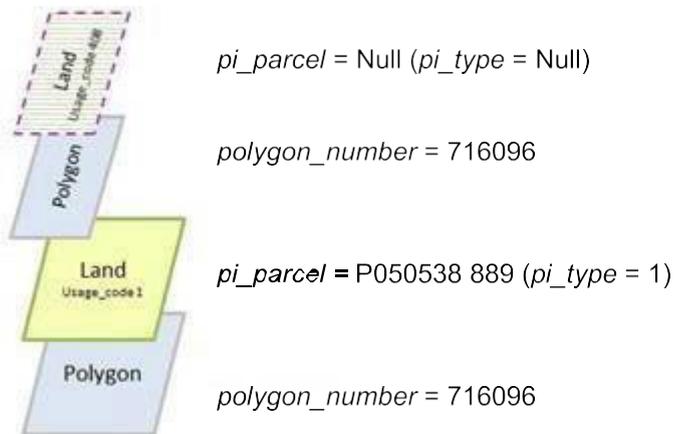
Easements are a Cadastral Family and comprise a separate polygon where the easement does not encumber the entire lot/land parcel SCDB data. In this example, two (2) features will be provided, one for each usage type. Note: SCDB rules allow easement polygons to overlap other cadastral polygons.

> **Note: Cadastral data should not be relied upon for the identification of all easements that affect land.**
>
> The SCDB does not contain all easements that are registered against land. For example, where an easement comprises the full extent of a single lot/land parcel, an individual easement polygon is not captured/generated. In the above example, if the easement covered the full extent of the Land, a second polygon will not exist in the data and a user will not be able to identify that an easement is apparent.
>
> Easements that are not captured on a survey document are also not captured in the SCDB and may only registered on the Certificate of Title.

1 Freehold Lot (with 2 parts), 2 polygons

pi_parcel = D005360 1

polygon_number = 458090
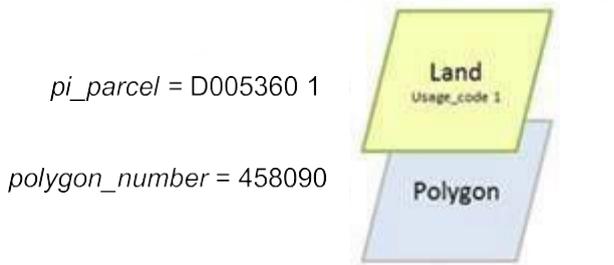
2 polygons where pi_type = 1 with same pi_parcel details and no common cadastral boundaries.

pi_parcel = D005360 1 (*pi_type* = 1)

polygon_number = 452832
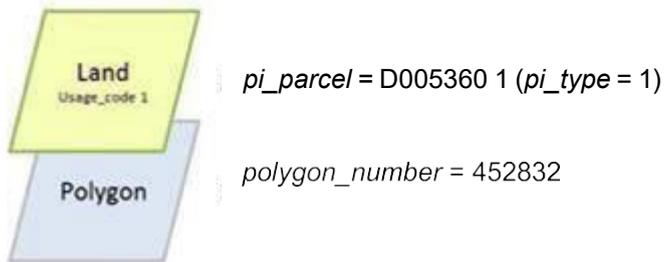
In this example, Lot 1 on D005360 is split by a road, each severance has the same pi_parcel but have different polygon_numbers. Two (2) features will be created with the same parcel identifier (lot on plan).

Note: The multi-part lot example above should not be confused with the records that have a *part_lot_indicator* in the data. Records that that have a *part_lot_indicator* = Y refers to those lots that have a portion of the lot remaining following subdivision. Please refer below.

Following subdivision, only part of lot 39 remains. There are approximately 1620 part lot records within the SCDB as at June 2018. Due to changed business rules, no new multi-part lots are created in the SCDB.

1.6.7 Depiction of roads within the SCDB, Road widening, Dedications & Dual Usage codes

It's important to note that different methods are applied to capture roads as lots on plans in the SCDB, resulting in either a single land record or a dual land record (adding a secondary usage record), this may impact how users of the data might interpret or visualise the data.

Single road land records are created when surveys lodged through the land development process, specifically nominate a lot as a road. In turn, dual road land records are created when an existing lot on title is subsequently dedicated as a road by; utilising the existing primary land record and adding a secondary record (the road usage).

The relationship between the primary lot on plan land record and a secondary road usage land record is maintained by sharing the same polygon (polygon_number).

The dual road land record type will become more prevalent in the SCDB to conform with the standard applied for other Crown Land Parcel usages such as UCL and Reserves, which all have a lot on plan land record and a secondary usage record.

Users of the data (Cadastre (Polygon) (LGATE-217)) could identify all roads (created as lots on plans through both of the abovementioned methods) and the related primary usages, by selecting all records (instances) of polygons (polygon _number) of which one of the usages (usage _code) is usage code 13.

It is recommended that the same principle is applied when the user of the data disseminates the data spatially, to support the effective interpretation of dual land record data.

It should be noted that the tenure type (land type) of 'road' is considered the dominant tenure for these lands. Therefore, for visualisation purposes, the application of labelling options or priority symbolisation by usage code to ensure dual land record data is identifiable, should be considered by users to support their required application of the data.

Roads and road widenings that dedicate upon approval of a plan and require a parcel identifier.

pi_parcel = P423086 501 (pi_type = 3 - P)

Polygon_number = 12587583
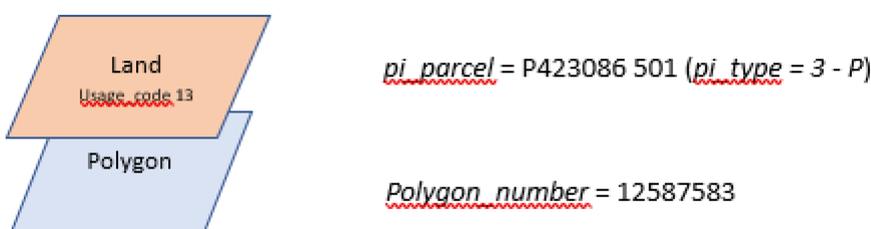
Roads and road widenings that dedicate upon approval and do not have a parcel identifier.
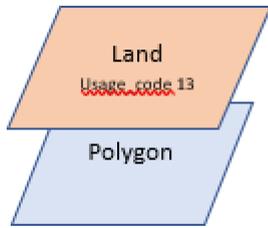
pi_parcel = P423086 CAVERSHAM BEND (pi_type = 3 - P)

$Polygon\_number$ =11062247

Single Road Land record depiction in SLIP:

polygon_number	usage_code	usage_description	calculated_area	polygon_area	land_id	land_type	lot_number	land_name	pi_type	pi_parcel	part_lot_indicator	survey_type	survey_number	survey_label_text	survey_purpose_c	lga_names
12686727	13	Road Isolation (Type 3 P)	2642.50	2641.00	30193130	ROAD	307	307	1	P423561 307	N	DP	423561	DP 423561	Taking or Acquisition	GOSNELLS
12686730	13	Road Isolation (Type 3 P)	86.12	86.00	30193132	ROAD	308	308	1	P423562 308	N	DP	423562	DP 423562	Taking or Acquisition	GOSNELLS

Where existing land parcels with an identifier are assigned a usage such as a reserve or road, they are depicted in the SCDB as follows.
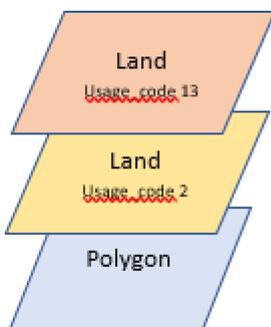
pi_parcel = ROAD (pi_type = 3 - P)

pi_parcel = P041064 5080 (pi_type = 1)
$alternate\_pi\_parcel$ = CANNING Location 5080

$Polygon\_number$ = 11304165

Dual road land record Depiction in SLIP:

2 SLIP Cadastre Data

The Data Dictionaries following have been provided within their spatial element as they have the same field attributes for the families within those elements. System generated field names resulting from vendor software/environment/platform etc have been excluded from the tables below.

2.1 Cadastre (polygon)

The below table contains field names that are common across multiple cadastral polygon datasets contained with the SLIP Cadastral subscription service. In the below table, the far- right column indicates the Cadastral datasets that contain the relevant field. The below codes should be applied:

I = Cadastre (Polygon) (LGATE-217)) – integrated into the current cadastral dataset.
L = Lodged Cadastre (Polygon) (LGATE-222) – not yet integrated into current cadastre where a survey is not yet approved.
R = Retired Cadastre (Polygon) (LGATE-219) – cadastre that has been retired from the current cadastral dataset is no longer active. ALL = the field is contained in all aforementioned Cadastral datasets.

Description: Cadastre (Polygon) (LGATE-217), Lodged Cadastre (Polygon) (LGATE-222), Retired Cadastre (Polygon) (LGATE-219)
Date Last Reviewed: Oct 2021
Last Reviewed By: Todd Harris (Product and Data Advisor – Location Services)

Ref	Field Name (*former field name*) (*SLIP shapefile field name*)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired
1	polygon_number	Integer	SCDB generated polygon number	N	ALL
2	usage_code	Small Integer	Is a code describing the purpose of the land parcel and may be used for symbology definition.	Y	ALL
3	usage_description	String (100)	Describes the usage_ code	N	ALL
4	view_scale	String (5)	scale range values to assist with scale range definition for map view display purposes.	N	ALL

Ref	Field Name (*former field name*) *(SLIP shapefile field name)*	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired
5	centroid_latitude	Double	Is the latitude coordinate for the centroid of the area shape / polygon, in decimal degrees. GDA94 (epsg: 4283)	N	ALL
6	centroid_longitude	Double	Is the longitude coordinate for the centroid of the area shape / polygon, in decimal degrees. GDA94 (epsg: 4283)	N	ALL
7	calculated_area	Double	Is the area in square metres of the area shape as calculated by the SCDB maintenance environment.	N	ALL
8	polygon_area	Double	Formerly "area": is the keyed in or other derived area in square metres – not necessarily the same as the calculated_area. The method of derivation of area is given in area_derivation_method.	N	ALL
10	area_derivation_method	String (2)	Is the method of determining the polygon_area (not calculated_area) of the polygon or area shape.	Y	ALL
11	area_derivation_indicator	String (1)	Is a yes/no flag indicating whether or not the polygon_area (not calculated_area) uses derived, described, or approximate data.	N	ALL
12	centroid_coordinate_method	String (1)	The method by which the centroid of the polygon is positioned. M = Mathematically calculated position. O = Optical	N	ALL
13	created_date	Date (36)	Date the feature was created within the dataset	N	I, L
14	last_modified_date	Date (36)	The date that the feature was last modified. For a new polygon this will be the same as the date created.	N	ALL
15	date_retired	Date (36)	The date that the feature was retired and no longer exists in the current cadastre. For the Retired Cadastre only. Removed from Lodged and current Cadastre	N	R
16	land_id	Integer	A unique system generated identifier assigned to land parcels of the same parcel identifier (pi_parcel)	N	ALL

Ref	Field Name (*former field name*) *(SLIP shapefile field name)*	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired
			eg: 3 different polygons may have the same pi_parcel and will therefore have the same land_id		
17	land_type	String (5)	Related to pi_type and usage_code, this field assigns a land category type to polygons to enable filtering and symbology. Not to be used for differentiating between CROWN (State owned) lands and Freehold lands. The values of CROWN AND FHOLD in this context only refers to the subdivision type (Act under which the lot was created – Land Act vs Transfer of Land Act, Land Administration Act). A CROWN lot can still be Freehold. The value EASMT in this context also includes all interests and not just easements – eg: carbon rights, notifications, profit-a-prendre, etc.	Y	I, L,
18	lot_prefix	String (2)	Only applicable where a lot prefix exists (NULL for type 3 pi_types)	N	I, L
19	lot_number	Integer	Lot number for lot on survey parcel identifiers (blank for type 2 & 3 pi_types)	N	I, L
20	land_name	String (60)	Useful for labelling purposes and depends upon the 'Parent land parcel identifier type ' Type 1 PI: 19 (lot number) Type 2 PI: ALBANY Suburban Lot 145 (Crown Allotment) Type 3 PI: ROAD, R 41456 (Reserve), UCL (Unallocated Crown Land), L PL J961645 (Crown lease number).	N	I, L
21	pi_type	String (1)	A number describing the type of parcel identifier (1 = lot on plan/survey, 2 = Crown Allotment, 3 = other/miscellaneous e.g., Reserve, Lease, Water, Road etc) Provides the full machine-readable formatted land parcel identifier. Refer section 3.10 Parcel Identifiers	Y	I, L

Ref	Field Name (*former field name*) (*SLIP shapefile field name*)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired
22	pi_parcel	String (17)	Where pi_type = 2, the full Crown Allotment identifier is provided	N	ALL
23	alternate_pi_type	String (1)	Identifies pi_type for alternate_pi_parcel – always = 2 when populated. Blank where pi_type = 1,3	N	I, L
24	alternate_pi_parcel	String (17)	Provides the full machine-readable formatted land parcel identifier where pi_type = 2 (Crown Allotments). Refer section 3.10 Parcel Identifiers This field is only populated for land where a Crown Allotment identifier still exists in the data.	N	I, L
25	part_lot_indicator	String (1)	Y/N (Yes/No) Indicates if the land parcel is a part lot following subdivision where only part of the original lot remains. There are approximately 1620 part lot records within the SCDB as at June 2018. Due to changed business rules, no new multi-part lots are created in the SCDB.	N	I, L
26	three_dimensional_indicator	String (1)	Y/N (Yes/No) Indicates if the land parcel is 3-dimensional.	N	I, L
27	survey_type	String (2)	Indicates the type of survey. DP = Deposited Plan, P = Plan, D = Diagram, SP = Strata Plan (Building and Survey Strata) Blank where pi_type = 3	N	I, L
28	survey_number	Integer	The number assigned to the survey document. Blank where pi_type = 3	N	I, L
29	crown_survey	String (50)	The original Crown Survey document (eg: CP 17947)	N	I, L
30	survey_label_text	String (50)	Comprises survey_type and survey_number to assist with labelling	N	I, L

Ref	Field Name (*former field name*) *(SLIP shapefile field name)*	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired
31	survey_status_code	String (50)	A code that represents the status of a survey document (refer to survey document for legal requirements)	Y	I, L
32	survey_status_desc	String (100)	Description of the survey_status_code	N	I, L
33	survey_status_date	Date (36)	Date that the survey status changed to the current status.	N	I, L
34	survey_lodgement_date	Date (36)	Date when the survey was lodged.	N	I, L
35	survey_purpose_description	String (100)	Describing the purpose of the survey eg: Surveyed Strata Plan (Strata Plan)	N	I, L
36	lga_names	String (200)	The Local Government Authority area/s that the polygon/land parcel intersects	N	I, L

2.2 Cadastre (Lines) - includes cadastral control

Description: Cadastre (Lines) (LGATE-216), Cadastral Control (Lines) (LGATE-225), Lodged Cadastre (Lines) (LGATE-221) Date Last Reviewed: June 2018
Last Reviewed By: Todd Harris

Ref	Field Name	Field Type (length)	Description	Associated Attribute Values Y/N
1	line_number	Integer	Is a system generated consecutive number that uniquely identifies a line	N
2	usage_code	Small Integer	Is a code describing the purpose of the line	Y
3	usage_description	String (50)	Describes the usage_code for the line feature	N
4	surveyed_indicator	String (1)	Y = Surveyed, N = Unsurveyed	N
5	start_point_number	Integer	The unique point number, as contained within the Cadastral Points dataset, from which the line starts	N
6	end_point_number	Integer	The unique point number, as contained within the Cadastral Points dataset, at which the line ends	N
7	construct_type	String (1)	Is a code that determines the physical construction characteristics of a line. It determines whether additional definition information (other than the end points) is required.	Y
8	distance_value	Double	Is the distance in metres. For arcs it is the arc distance, for topographic strings it is the sum of the distances between consecutive string points	N

9	distance_accuracy	Integer	An estimate of the accuracy of the length of a line as given in DISTANCE VALUE expressed as a ratio. For example, a distance accuracy of 1000 means that the line length is expected to be accurate to plus or minus 1/1000 of its given value.	N
10	distance_datum	String (1)	A character code describing the datum for the distance: G = Ground Level S = Spheroid	N
11	distance_derivation	String (1)	Indicates how the distance value is derived and relates to the distance accuracy	Y
12	spatial_accuracy	Double	Is a value that may be used to indicate the reliability of the distance value stored for the line. It is calculated as a function of calculated distance against the recorded distance.	N
13	render_normal	String (5)	A concatenated character string comprising the usage code and a surveyed/unsurveyed identifier to assist with symbology definition.	N
14	view_scale	String (5)	Scale range value to assist with scale range definition for map view display purposes.	N
15	created_date	Date (36)	Date the feature was added to the system database.	N
16	last_modified_date	Date (36)	Date the feature was last modified. For a new line this will be the same as the date created.	N
17	lga_names	String (200)	Local Government areas that the line intersects (may contain multiple LG names).	N

2.3 Cadastre (Points) - includes cadastral control

Description: Cadastral Points (LGATE-215), Cadastral Control (Points) (LGATE-224), Lodged Cadastre (Points) LGATE-220)
Date Last Reviewed: October 2021 Last Reviewed By: Todd Harris, Location Services

Ref	Field Name - Shape File	Field Type (length)	Description	Associated Attribute Values Y/N
1	point_number	Integer	Feature identifier number	N
2	usage_code	Small Integer	Is a code describing the purpose of the line	Y
3	usage_description	String (50)	Describes the usage_code for the line feature.	N
4	surveyed_indicator	String (1)	Y = Surveyed, N = Unsurveyed	N
5	render_normal	String (5)	A concatenated character string comprising the usage code and a surveyed/unsurveyed identifier to assist with symbology definition.	N
6	Latitude	Double	Is the latitude coordinate in decimal degrees. GDA94 (epsg: 4283)	N
7	Longitude	Double	Is the longitude coordinate in decimal degrees. GDA94 (epsg: 4283)	N
8	point_horizontal_method	String (1)	Is a code specifying how the point coordinates were created.	Y
9	point_accuracy	Double	Is the perceived accuracy of a point expressed in metres. It determines how much influence the point has, or will have, on an adjustment.	N
10	reduced_level	Double	Is the height of a point expressed as a vertical displacement in metres from Mean Sea Level (MSL).	N
11	Name	String (30)	Is the optional name for a point.	N
12	view_scale	String (5)	Scale range value to assist with scale range definition for map view display purposes.	N
13	created_date	Date (36)	Date the feature was added to the system database.	N
14	last_modified_date	Date (36)	The date that the feature was last modified. For a new line this will be the same as the date created.	N
15	lga_names	String (200)	Local Government areas that the line intersects (may contain multiple LG names).	N

3 Attribute Values

3.1 Area Derivation Method

Field Name: area_derivation_method	
Values	**Description**
UN	area unavailable
CO	by coordinates
AN	by angle and distance
AZ	by mid azimuth and distance
BR	by bearing and distance
KY	by key in
SM	by summed

3.2 Horizontal Point Calculation Method

Field Name: point_horizontal_method *(formerly coordinate_calculation_method)*	
Values	**Description**
K	Keyed in (numeric entry)
D	Phase 1 Least Square Adjustment
T	Travers adjusted
L	Phase 2 Least Square Adjustment
G	Graphical construction
P	Precal
F	Transformation

3.3 Distance Derivation

Field Name: distance_derivation	
Values	**Description**
M	Measured
C	calculated
V	derived
D	described
A	Approximate (e.g., Scale)

3.4 View Scale

Values contained within this field relate to polygon area and have been derived to provide users with a view scale. IE: Where a feature has a view_scale = 4k, the recommended view scale range for the feature is 1:1 – 1:4000. This is designed for viewing performance for maps so to mitigate all features (approx 1.9million) drawing at whole of state scale.

Field Name: view_scale	
Values	**Description**
4k	Recommended view scale 1:1 – 1:4,000
16k	Recommended view scale 1:1 – 1:16,000
64k	Recommended view scale 1:1 – 1:64,000
256k	Recommended view scale 1:1 – 1:256,000
All	view scales greater than 1:1

3.5 Land Type

NOTE: NOT TO BE USED FOR DETERMINING CROWN *(lands owned by the State)* VS FREEHOLD LAND

Field Name: land_type	
Values	**Description**
OTHER	Surveyed land other than lots or reserves (i.e., PAW, ROW and Marine Parks)
STPLN	Strata (Building or vacant) Plan
EASMT	Easement (includes all other interests eg: carbon rights,
CROWN	Crown Allotment
ADMIN	Administrative Boundary
SSPLN	Survey Strata Lot
ROAD	Dedicated and undedicated, widenings, casement, and closed roads
LEASE	Crown Lease
RESVE	Reserve
FHOLD	Freehold Lot
SVEXT	Survey Extent

3.6 Survey Status Code

Surveys that have a Survey Status of APPROVED are considered Integrated / Current. Surveys with a Survey Status other than APPROVED are considered to still be in the Lodged stage of the Land Development Process.

3.6.1 New Survey Status Codes

The below new codes have resulted from a change to source data as a result of the introduction of the Community Titles Act 2018, also as a result of Landgate transitioning from legacy systems. Note: not all superseded codes will have a relatable new survey status code.

Status Code	Description	Related former code
APPROVED_BUT_NOT_DEALT	Approved but not Dealt	AN
APPROVED	Approved	AP
CANCELLED	Cancelled	CA
EXAMINED	Examined	CC
EXAMINED_AND_SENT_FOR_PLANNING_APPROVAL	Examined and Sent for planning approval	CP
EXPIRED	Expired	XP
INDEX_PLAN	Index Plan	IP
LAPSED	Lapsed	LA
LODGED_SUBJECT_TO_EXAMINATION	Lodged, Subject to Examination	LS
PLANNING_APPROVED	Planning Approved	MP
NULL_AND_VOID	Null and Void	NV
IN_ORDER_FOR_DEALINGS	In Order for Dealings	OD
STOPPED	Stopped	ST
SURVEY_CORRECT	Survey Correct, refer to survey advice officer	SC
SURVEY_ASSIGNED_FOR_EXAMINATION	Survey Assigned for Examination	SE
TERMINATED	Terminated	TE
UNKNOWN	Unknown at take-up (survey missing)	UK
TRANSFERRED_TO_LANDS_SURVEYS	Transferred to Lands/Surveys	TR
UNREGISTERED	Unregistered	UR

3.6.2 Superseded Survey Status Codes (to be retired)

Values	Description
AN	Approved but not Dealt (freehold/crown only)
AP	Approved (strata => Registered) (freehold/crown and strata).

Values	Description
CA	Cancelled (freehold/crown and strata)
CC	Certified Correct (freehold/crown and strata)
CP	Certified Correct and sent to MFP (freehold/crown and strata)
ES	Examined - subject to Strata Requisition (strata => In Order for Dealings) (strata only)
IN	Indexed (SCDB) or Indexed Spatially (auto) (Field Book)
IP	Index Plan (freehold/crown only)
LA	Lapsed (strata only)
LO	Lodged (Field Book)
MP	MFP Approved
NV	Null and Void (strata only)
OA	Office Audited (Field Book)
OD	In Order for Dealings (strata => Examined) (freehold/crown and strata)
SC	Survey Correct, refer to survey advice officer (freehold/crown only)
SE	Lodged, Subject to Examination (freehold/crown and strata)
ST	Stopped
TE	Terminated (strata only)
TR	Transferred to Lands/Surveys (freehold/crown only)
UK	Unknown at take-up (survey missing) (freehold/crown only)
UR	Unregistered (freehold/crown only)
XP	Expired

3.7 Usage Code - Polygons

The usage code along with the pi_type and pi_parcel assists in establishing the land usage.

Field Name: usage_code			
Usage Code	Description		PI Type and pi_parcel *refer to section 3.9 Parcel Identifier (formatting)*
1	Transfer of Land Act (Type 1)	ALL	PI Type = 1
2	Land Act (Type 2) - Crown Allotment	I, L	PI Type = 2
3	Reserve (Type 3 – R)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'R'
4	Lease (Type 3 – L)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'L'
5	State Forest (Type 3 – F)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'F'
6	Unallocated Crown Land (Type 3 – V)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'V'
7	Closed Road (Type 3 – C)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'C'
8	Drain Reserve (Type 3 – D)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'D'
9	Timber Reserve (Type 3 – O)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'O'
10	Railway (Type 3 – A)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'A'
11	Water (Type 3 – W)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'W'
12	Tramway (Type 3 – T)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'T'
13	Road Isolation (Type 3 – P)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'P'
14	Marine Park (Type 3 – M)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'M'
15	Stock Route (Type 3 – S)	I, L	PI Type = 3 and character set 1 of PI Parcel = 'X'
16	Surveyed Strata	I, L	LAND_TYPE = 'SSPLN'
17	Crown Grant in Trust	I, L	
19	Building Strata	I, L	LAND_TYPE = 'STPLN'
20	No Parcel Identifier	I, L	No PI
21	Easement Polygons	I, L	No PI
22	Parent of Survey Strata	I, L	
23	Carbon Right	I, L	
24	Tree Plantation	I, L	
25	Carbon Covenant - Burden	I, L	
26	Carbon Covenant - Benefit	I, L	
27	Contaminated Site	I, L	
28	Caveat	I, L	
29	Easement - doc	I, L	
30	Easement - LAA 144	I, L	
31	Easement in Gross - LAA 195	I, L	

Field Name: usage_code			
Usage Code	**Description**		**PI Type and pi_parcel** *refer to section 3.9 Parcel Identifier (formatting)*
32	Easement Public Access LAA 195/196	I, L	
33	Easement - STA 5D	I, L	
34	Easement - TLA 136C	I, L	
35	Easement - TLA 167A	I, L	
36	Easement - P&D 167 Reg 5	I, L	
37	Easement - P&D 167 Reg 6	I, L	
38	Easement - P&D 167 Reg 7	I, L	
39	Easement - P&D 167 Reg 8	I, L	
40	Easement - P&D 167 Reg 9	I, L	
400	Freehold Lease	I, L	
401	Memorial	I, L	
402	Notification	I, L	
403	Profit a prendre	I, L	
404	Restrictive Covenant - Benefit	I, L	
405	Restrictive Covenant - Burden	I, L	
406	Covenant - LAA 15	I, L	
407	Easement - P&D 167 Reg 5	I, L	
408	Easement - P&D 167 Reg 6	I, L	
409	Easement - P&D 167 Reg 7	I, L	
410	Easement - P&D 167 Reg 8	I, L	
411	Easement - P&D 167 Reg 9	I, L	
412	Easement - P&D 167 Reg 33(a)	I, L	
413	Easement - P&D 167 Reg 33(b)	I, L	
414	Easement - P&D 167 Reg 33(c)	I, L	
415	Easement - P&D 167 Reg 33(d)	I, L	
416	Easement - P&D 167 Reg 33(e)	I, L	
417	Easement – Benefit - STA 33		
418	Easement - STA 33 Reg 31 - Vehicle Access		
420	Easement - 33 Reg 32 - Light & Air		
422	Easement - STA 33 Reg 33 - Party Wall		
426	Easement - STA 33 Reg 35 - Ped Access		

Field Name: usage_code		
Usage Code	**Description**	**PI Type and pi_parcel** *refer to section 3.9 Parcel Identifier (formatting)*
427	Easement - STA 33 Reg 36 - Easement in Gross	
428	Easement - STA 33 Reg 37 - Water supply	
429	Easement - STA 33 Reg 37 - Drainage	
430	Easement - STA 33 Reg 37 - Gas supply	
431	Easement - STA 33 Reg 37 - Overhead Elec	
432	Easement - STA 33 Reg 37 - UndGnd Elec	
433	Easement - STA 33 Reg 37 - Overhead Comms	
434	Easement - STA 33 Reg 37 - UndGnd Comms	
435	Easement - STA 33 Reg 37 - Sewerage	
436	Restrictive Covenant - STA 33 Reg 43 - RoW	
437	Restrictive Covenant - STA 33 Reg 44 - Land use	
438	Restrictive Covenant - STA 33 Reg 45 - Conserv	
439	Restrictive Covenant - STA 33 Reg 46 - Build Env	
440	Restrictive Covenant - STA 33 Reg 47 - Fire	

3.8 Usage Code - Lines

The table below shows the usage code attributes and description within the family types.

Family	Usage Code	Description	Status I= Current L=Lodged
Cadastral	1	Road Boundary	I and L
	2	Normal Boundary	I and L
	3	Water Boundary	I and L
	4	Group Boundary	I
	5	Common Boundary	I
	6	HWM Boundary	I
	7	LWM Boundary	I
	8	Nautical Boundary	I
	11	Network Construct	I and L
	12	Poly Tie Construct	I and L

Family	Usage Code	Description	Status I= Current L=Lodged
	14	3D Normal	I
	15	3D Construct	I
	21	Interest (Easement) Boundary	I and L
	22	Interest (Easement) Construct	I and L
	23	Superline	I
Control	13	RO Construct	I
	43	Non-Geodetic Connection	I
	44	Non-Geodetic Precal	I
	46	Non-Geodetic Connection GDA94	I

3.9 Construct Line Types

The table below shows the construct type attributes and description within the family types for lines data.

Field Name: construct_type	
Values	**Description**
M	Meridian line – a line along a meridian of longitude
P	Parallel line – a line along a meridian of latitude
S	Other straight line (not a meridian or parallel line) – a line that is described by the shortest distance between its end points
C	Circular arc – a line representing the whole, or part, of the circumference of a circle drawn in a clockwise direction between the end points of a line and around an arc centre point
T	Topographic string – a complex line represented by a series of connected points

3.10 Usage Code - Points

The table below shows the usage code attributes and description within the family types FOR POINTS DATA

Family	Usage Code	Description	Status I= Current L=Lodged
Cadastral	1	Road Boundary	I and L
	2	Normal Boundary	I and L
	3	Water Boundary	I and L
	4	Group Boundary	I
	6	HWM Boundary	I
	7	LWM Boundary	I
	8	Nautical Boundary	I
	11	Network Construct	I and L
	12	Poly Tie Construct	I and L
	14	3D Normal	I
	21	Easement Boundary	I and L
	22	Easement Construct	I and L
Control	41	SSA Permanent Survey Mark	I
	42	SSA Permanent Control Mark	I
	43	Non-Geodetic Connection	I
	44	Non-Geodetic Temporary Control Mark	I
	45	Geodetic Standard Survey Mark	I
	46	Geodetic Bench Mark	I
	47	Geodetic Temporary Control Mark	I
	48	Geodetic Reference Mark	I
	49	Non-Geodetic	I

4 Parcel Identifiers (pi_parcel)

pi_parcel is the major part of the parcel identifier, is machine readable and is formatted to preserve legacy system compatibility. It is particularly useful when dealing with and understanding Type 2 and Type 3 parcel identifiers. There are 3 different Parcel Identifier formats identified by the pi_type field. These 3 different types of Parcel Identifier are referred to as (and described below):

- Parcel Identifier Type 1 = Lot on Survey/Plan
- Parcel Identifier Type 2 = Crown Allotment
- Parcel Identifier Type 3 = Miscellaneous.

These are further described below.

4.1 PI TYPE 1 - pi_parcel formatting (Lot on Survey / Plan)
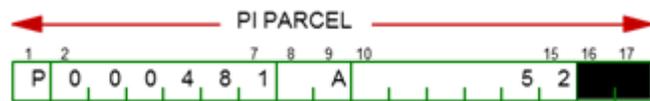
Character set 1	Character set 2-7	Character set 8-9	Character set 10-15	Character set 16-17
Survey Type Identifier *P = Plan* *D = Diagram* *S = Strata Plan*	**Survey Number** *A number applied to a survey document which when used with the Survey Type provides a unique reference number. This field is numeric, right-justified.*	**Survey Section** *(also lot_prefix)* *A letter or number identifying the section of the survey. This field is alpha-numeric, right justified, and blank filled. It is usually blank*	**Lot Number** *A lot number identifies a land parcel on a survey. This field is alpha-numeric, right justified, and blank filled. All new lots will be numeric but in the past various alpha and alpha-numeric lot identifiers were created. Many of these lots are still live and will remain that way so must be allowed for. There are lots in existence with identifiers such as 101, A, 3/2 etc*	BLANK - reserved

4.2 PI TYPE 2 - pi_parcel formatting (Crown Allotment)
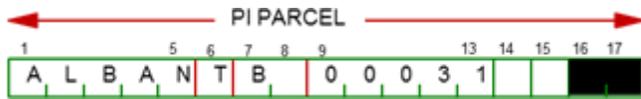
Character set 1-5	Character set 6	Character set 7-8	Character set 9-13	Character set 14	Character set 15	Character set 16-17
Crown Allotment Code *The abbreviation for the name of the land district, town site, agricultural area, estate, or suburban area. This field is alpha, left justified*	**Crown Allotment Type** T = LOT / TOWN LOT L = LOCATION S = SUBURBAN LOT E = ESTATE LOT A = AGRICULTURAL AREA LOT	**Prefix** *The alpha part of the crown allotment identifier which precedes a number or which comprises a totally alpha lot identifier.*	**Crown Allotment Number** *The numeric part of the crown allotment id. It is numeric, right-justified and zero filled*	**Crown Allotment Fraction** *Some crown allotments contain fractions. These have been coded so that only one character is required. The field contains one of the following values:* *blank-no fraction* *1-1/4* *2-1/2* *3-3/4*	**Crown Allotment Suffix** *Any alpha part of the crown allotment identifier which follows the number. This field is usually blank*	BLANK - reserved

4.3 PI TYPE 3 - pi_parcel formatting (Miscellaneous)

A land parcel which cannot be assigned a survey lot or crown allotment PI will be identified by one of the miscellaneous forms of identification which is usually the dominant land tenure type.

PI Type 3 Miscellaneous	Character set 1	Character set 2-7	Character set 8-13	Character set 14-17
Lease (Land Act 1933) *Allocated prior to 30th March 1998 (many of these lease types no longer exist)* 37-Leased to Commonwealth 32- Leased to Government Agencies, Local Government etc. 332-Special Leases over Reserves. 333A-Miscellaneous Leases such as: - • Exchange of Land • Crown Grants in trust 338-Sold under Licence by Auction 341-Sold under Licence over the Counter 345-Leased/Sold to Homes west under licence 345A-Sold under Licence 345B-Sold under Licence 347, 353 and 386 - Conditional Purchase Leases (Agricultural) 3116 and 3117 (Special Leases) 3117AA-Conversion to freehold. 398 and 3114-Pastoral Lease	L	Legislation/section under which the Crown lease was granted – defines lease type and is right justified. Eg: 3 = Land Act 1933 114 = relevant section of the act 	Lease / License number	Blank - reserved

Lease (Land Administration Act 1997)	L	Lease type and license/lease document prefix	Lease / License document number	Blank - reserved
Allocated post 30th March 1998 RL = Reserve Lease RO = Road Lease GE = General Lease PU = Purchase Lease AB = Aboriginal Lease				
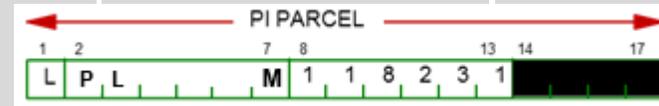
PI Type 3 Miscellaneous	Character set 1	Character set 2-7	Character set 8-13	Character set 14-17
SU = Subdivisional Lease GO = Government Agency Lease PL = Pastoral Lease AC = Acquisition Lease PP = Profit 'A' Prendre OP = Option to Purchase Granted LI = Licences OL = Option to Lease Granted				
Miscellaneous Types: F = State Forest M = Marine Park O = Timber Reserve R = Crown Reserve	R	Reserve number 	Blank - reserved	Blank - reserved
Miscellaneous Types: A = Railway C = Closed Road D = Drain Reserve P = Road S = Stock Route T = Tram Way V = V Crown Land (UCL) X = Unknown W = Water	V	Alpha character description for the first part of the identifier and is right justified.	Alpha character description for the second part of the identifier (may be blank), is right justified and may be. abbreviated. 	Blank - reserved