Buildings

Release Report

March 2026

Geoscape

30 March 2026

Contents

1 Overview

Buildings is a digital dataset representing buildings across Australia. The Buildings dataset has relationships with the G-NAF, Cadastre, Property and Administrative Boundaries products produced by Geoscape Australia.

Data quality and potential capture timelines will vary across Australia based on the capture_method (Aerial or Satellite) and capture_resolution (e.g. 7cm, 50cm) of the record. Aerial capture includes enhanced attribution in comparison to Satellite capture.

Geoscape welcomes your feedback on the Buildings product. We also publish regular product development updates on our website (www.geoscape.com.au).

1.1 Release Summary

This product was released to customers on **31 March 2026** with data extracted on 19 March 2026.

- This release is a full national data population for Version 4.0 of the Buildings product, described by the Buildings Product Guide v4.0.

Any issues that have been identified for this release are described in the Issues section.

This release includes updates for the areas listed in the table below.

Table 1: Locations of updated areas by State

State	Location	Urban Area (km2)
ACT	Australian Capital Territory	498
NSW	Albury City Council	73
NSW	Armidale Regional Council	26
NSW	Ballina Shire Council	31
NSW	Bayside Council	3
NSW	Blue Mountains City Council	84
NSW	Camden Council	19
NSW	Campbelltown City Council	41
NSW	Central Coast Council	137
NSW	Cessnock City Council	20
NSW	Georges River Council	15
NSW	Goulburn Mulwaree Council	30
NSW	Hawkesbury City Council	64
NSW	Ku-ring-gai Council	24
NSW	Lake Macquarie City Council	236
NSW	Lismore City Council	37
NSW	Maitland City Council	87
NSW	Mid-Coast Council	6
NSW	Newcastle City Council	119
NSW	Northern Beaches Council	63
NSW	Port Stephens Council	94
NSW	Queanbeyan-Palerang Regional Council	76
NSW	Shellharbour City Council	42
NSW	Shoalhaven City Council	45
NSW	Sutherland Shire Council	98
NSW	Tamworth Regional Council	38

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Table 1 – continued from previous page

State	Location	Urban Area (km2)
NSW	The Council of the Shire of Hornsby	55
NSW	The Hills Shire Council	2
NSW	Tweed Shire Council	121
NSW	Wollondilly Shire Council	5
NSW	Wollongong City Council	162
NSW	Yass Valley Council	2
NT	Darwin Municipality	93
NT	Darwin Waterfront Precinct Municipality	1
NT	Litchfield Municipality	203
NT	Northern Territory Rates Act (Prescribed Area A) Area	25
NT	Palmerston Municipality	60
QLD	Brisbane City	80
QLD	Gold Coast City	439
QLD	Ipswich City	1
QLD	Lockyer Valley Regional	1
QLD	Logan City	650
QLD	Redland City	179
QLD	Scenic Rim Regional	95
QLD	Toowoomba Regional	159
VIC	Wodonga City	57
Total		4,396

Spatial files of the updated areas are available upon request via support@geoscape.com.au.

2 Change Notifications

2.1 National Buildings 4.0

This release marks the initial launch of National Buildings 4.0, presented as a base "Buildings" dataset with additional aspatial "Insight Packs" that are designed to provide specific understanding or knowledge about a particular topic/theme for an industry or use-case.

For more information on the change to this new structure, see the transition information sheet here: National-Buildings-Transition-Infosheet.pdf

The changes will affect the request and download experience in both Geoscape Hub and Datasets API. For more information, see:

- Annex B – Changes to the Geoscape Hub request and download process
- Annex C – Changes to accessing Buildings data via the Datasets API

2.2 Change to product version numbering (Effective March 2026)

From this release, we have updated version numbering to a new format: MAJOR-MINOR-EXTRACT (e.g. 004-000-001). This approach provides a clear and consistent structure, making it easier for users to identify product versions and understand update levels. The change is intended to improve transparency, reduce ambiguity, and support more efficient integration and usage of our data products.

2.3 Change to product folder structure (Effective March 2026)

From this release, we have updated the folder structure in product packages. Previously, we provided a `contents.txt` file and a number of internal folders. The .ZIP file packages now only contain data files. We have applied this change to simplify accessing the data.

2.4 Legacy 'CAD' naming

Version 3 of the Buildings product had a building_cad table that contained a field that was called `cad_pid`, while the Cadastre product has an attribute called `cadastre_pid`.

For National Buildings 4.0, we have changed the name of the building_cad table to 'building_cadastre' and have changed the `cad_pid` field to `cadastre_pid` to align with the Cadastre product.

2.5 Linkage changes to building_cadastre and building_property

The tolerance used to associate buildings with cadastre and property features has been refined. In this release, we have removed low-confidence relationships (relationship_confidence = 20) where a higher-confidence relationship (≥80) already existed for the same building. These low-confidence links were typically caused by geometric misalignment and did not represent meaningful real-world relationships. As a result, record counts in the building_cadastre and building_property tables have decreased. This change has also enabled improvements to building_address linkages that were previously created indirectly via cadastre or property relationships.

2.6 Linkage changes to building_address at multi-address/building sites

To improve the accuracy of building–address associations, refinements have been made to the address selection and linkage logic used during building processing. Approximately 5 million lower-confidence building_address records that did not meet established confidence thresholds have been removed as part of this refinement.

2.7 Changes to address_pid where the building_address record is essentially unchanged

Some `address_pid` values in the building_address table have changed in this release, even where the building remains linked to an address with the same address label (or `address_detail_pid`) as in December 2025. This is due to the introduction of additional G-NAF addresses into the linkage process and updated deduplication logic, which may now deterministically select a different `address_pid` representing the same address label. In cases where addresses share a label but have different geometries, they may not be deduplicated if they link to different buildings (for example, where the geometries fall within different cadastre or property features). These changes may also result in differences to `relationship_confidence` values where the selected address geometry differs from that used in the December 2025 release.

2.8 Product File Changes

The alteration of the National Buildings 4.0 update process has resulted in product file changes. These changes include, but may not be limited to, those summarised below:

- All internal production processes have been cut over from GDA94 to GDA2020. This has resulted in slight (usually sub-millimetre) changes to the geometries of the output files. The building_pid values have not changed due to this.
- To align the naming of the Australia region product files with the state and territory files, an `'australia_'` prefix has been added to the table and layer names.
- For example:

  December 2025 > March 2026

  file name: `buildings.gdb` > `australia_buildings.gdb`

  layer name: `buildings` > `australia_buildings`
- Due to the changes in processing and therefore tooling, the automatic identifier for File Geodatabase files (`OBJECT_ID`) is now the first attribute rather than the last.

- GeoJSON file outputs are now in pretty print format, as opposed to previously being single-line format. This will not affect the contained data values. JSON files continue to be provided in single-line format. We are looking to align this formatting in a future release.
- In GeoJSON and JSON file formats, spaces separating the file components that had previously been removed are now retained. This will not change attribute values but will potentially lead to file size increases.
- In GeoJSON, JSON and PSV files, date fields are now represented in YYYY-MM-DD format (e.g. 2026-03-31) where previously they were provided in DD-MM-YYYY format (e.g. 31-03-2026).

3 Issues

3.1 New Issues

8 MapINFO TAB Geometry issues

We have become aware of 8 geometries in the Buildings MapINFO TAB file format that contain self-intersections due to the way MapINFO TAB alters geometries on extract. We will look into resolving this in a future release.

Incorrect date_last_captured in address_pool

An issue has been identified with the date_last_captured attribute in the address_pool table for some records where pool_flag = 'No'. This behaviour occurs where cadastre parcels intersect multiple update areas with differing capture dates. In these cases, the address is assigned the most recent date_last_captured value, even when the corresponding update area does not represent the primary update area based on the majority area of overlap with the cadastre parcel. This behaviour affects a subset of 262,668 records in the address_pool table where the date_last_captured may not align with the capture date of the update area with the greatest overlap with the cadastre parcel.

3.2 Resolved Issues

Centroid not within building polygon

When mapping the building centroid from the centroid_longitude and centroid_latitude, there were previously occurrences in Buildings v3 where the point did not fall inside the building geometry. This occurred because of the complexity of the building geometry or the rounding of the building centroid to greater precision down to 6 decimal places and impacted < 0.1% of buildings. A fix for this issue has been applied for the March 2026 release by increasing the number of decimal places in the centroid_latitude and centroid_longitude values to 9.

Duplication of buildings between update areas

New and updated buildings are captured within Areas of Interest (AOIs). Buildings that intersected two adjacent AOIs were sometimes duplicated in the past. This issue affected approximately 1,800 buildings. In the March 2026 release there are no duplicate building geometries.

Duplicate building polygons

There were 8,417 buildings with duplicate geometries which resulted in 8,427 additional building polygons being present in previous releases. In the March 2026 release there are no duplicate building geometries.

Building position offset from imagery

There was evidence of buildings having a horizontal shift of approximately 0.5m in the NSW suburbs of Parramatta and the Dee Why area. This occurred where the new shift to the digital elevation model has not worked as intended. This issue has been resolved in the March 2026 release.

3.3 Known Issues

Perth Building Height Adjustment

An error was identified in the source data used to generate building heights for an area of Perth during the September 2025 release. A limited number of buildings in that area were affected, and heights for these buildings were reverted to the March 2025 values for the December 2025 release. A refresh of the area is planned within the next year. This issue did not impact other areas. Additional checks have been implemented to prevent similar issues in future processing.

Incorrect metal primary_roof_material assignment

In the update areas for the September 2024 release, we noticed that a large number of buildings have been classified with a primary_roof_material of 'Metal'. On investigation, it was identified that this classification was not correct in many cases and so the primary_roof_material values were rolled back to the previous (June 2024) values where possible. We are looking to update these areas in an upcoming release to resolve remaining mis-classification and are working with our data supplier to improve this classification for future supplies.

Incorrect roof_type, roof_shape and roof_slope assignment

In the update areas for the September 2024 release, we noticed that a large number of buildings have been classified with a roof_type and roof shape of 'Flat' and roof_slope of '0'. On investigation, it was identified that this classification was not correct in many cases and so these values were rolled back to the previous (June 2024) values where possible. We are looking to update these areas in an upcoming release to resolve remaining mis-classification and are working with our data supplier to improve this classification for future supplies.

Roof colour assignment

There is an over classification of light roof colours primarily in the Melbourne region. Advances in processing has improved this issue in recent releases.

Over-capture of metal roof material in aerial supplies

In the June 2022 release, we noticed that there was an over-capture of Metal roof type in the aerial capture. This occurred primarily for residential buildings. In some areas of the aerial capture (e.g. Perth and Cairns), Metal classification was actually improved overall in relation to the previous satellite capture (satellite previously incorrectly classified Metal roofs as Tile). We are working with our production partners to improve the accuracy of the roof_material attribute, which can be affected by image smoothing, causing Tile roofs to be incorrectly classified as Metal.

4 Future Considerations

This section outlines enhancements or changes under consideration, but not planned into a specific release. For further details on future initiatives, please contact Geoscape Support.

5 Annex A – Release Counts

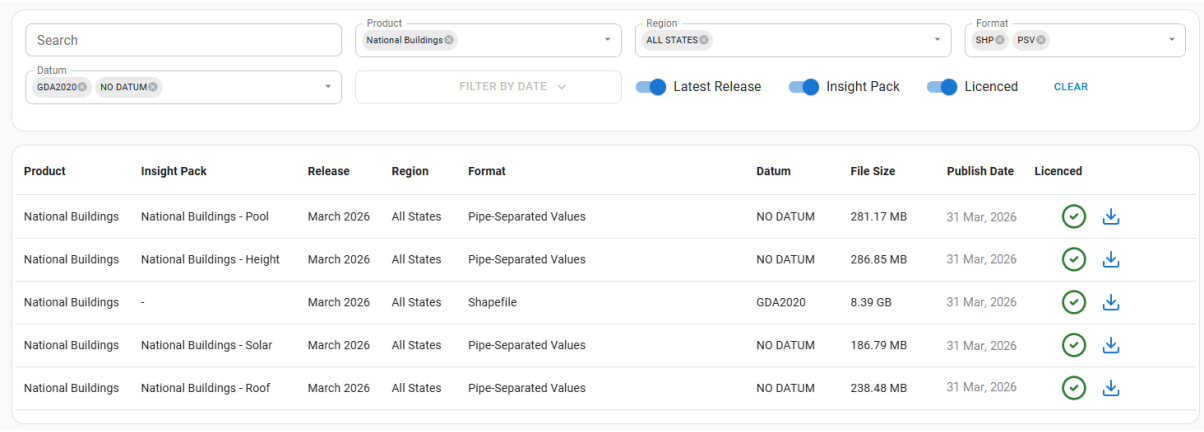
For the buildings table the additional, retired, updated and total building counts, as well as the percent change to the previous release have been listed in the table below. For the aspatial tables the total record counts have been listed.

TABLE	STATISTIC	ACT	NSW	NT	OT	QLD	SA	TAS	VIC	WA	TOTAL
buildings	Additional	8,840	54,280	4,632	0	36,504	0	0	1,810	0	106,066
	Retired	4,598	35,268	2,521	0	19,155	13	0	754	6	62,315
	Updated	247,925	5,376,236	164,370	449	3,827,616	1,802,963	598,595	5,088,033	2,287,360	19,393,547
	Total	256,765	5,430,516	169,002	449	3,864,120	1,802,963	598,595	5,089,843	2,287,360	19,499,613
	% Change	1.68%	0.35%	1.26%	0.00%	0.45%	0.00%	0.00%	0.02%	0.00%	0.22%
building_cadastre		297,863	12,245,439	396,040	518	5,606,131	2,169,036	710,175	9,240,933	4,517,294	35,183,429
building_property		260,721	12,519,929	321,130	0	5,695,071	2,094,253	615,946	11,429,355	2,311,470	35,247,875
building_address		839,484	11,822,931	304,154	131	6,812,168	2,475,225	739,261	8,715,728	3,914,727	35,623,809
building_height		255,446	4,442,148	135,394	337	3,225,856	1,443,360	404,965	4,263,013	1,860,206	16,030,725
building_roof		255,446	4,532,074	136,138	337	3,274,237	1,450,374	440,098	4,204,362	1,900,725	16,193,791
building_solar		255,447	4,543,708	136,235	337	3,275,876	1,451,266	441,119	4,314,769	1,901,150	16,319,907
address_pool		247,171	4,302,561	94,906	1,108	2,787,823	977,915	277,748	3,781,265	1,422,339	13,892,836

6 Annex B – Changes to the Geoscape Hub request and download process

6.1 For customers of full-featured National Buildings or National Buildings - Heights and Roofs

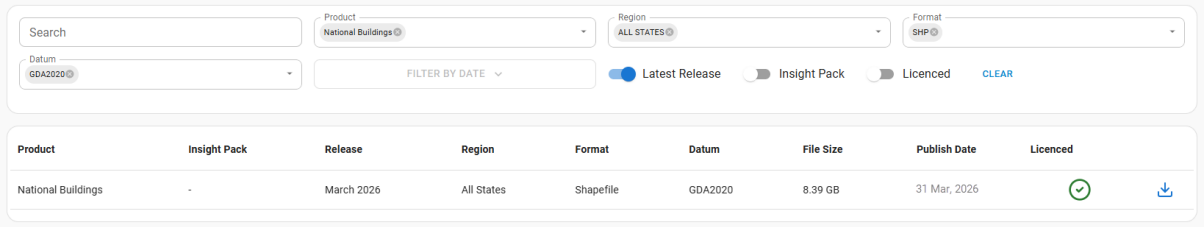
- You will need to download the base “National Buildings” dataset and one or more Insight Packs.
- From the Geoscape Hub menu, go to the **Datasets > Standard** page.
- In the **Product** field, select **National Buildings**.
- Enter your preferred **Region** (s).
- If you are using the **Format** filter, ensure you include **PSV** so the Insight Packs are not hidden.
- If you are using the **Datum** filter, ensure you include **NO DATUM** so the Insight Packs are not hidden.
- **Enable** the toggle **Latest Release** to filter out previous releases.
- **Enable** the toggle **Insight Pack** to include the associated Insight Packs.
- **Enable** the toggle **Licenced** to filter out datasets that you are not licenced for.
- Select and download the base ‘National Buildings’ product.
- Select and download the relevant Insight Packs. The available packs will be:
  - National Buildings - Roof
  - National Buildings - Height
  - National Buildings - Solar
  - Address - Pool



Product	Insight Pack	Release	Region	Format	Datum	File Size	Publish Date	Licenced
National Buildings	National Buildings - Pool	March 2026	All States	Pipe-Separated Values	NO DATUM	281.17 MB	31 Mar, 2026	
National Buildings	National Buildings - Height	March 2026	All States	Pipe-Separated Values	NO DATUM	286.85 MB	31 Mar, 2026	
National Buildings	-	March 2026	All States	Shapefile	GDA2020	8.39 GB	31 Mar, 2026	
National Buildings	National Buildings - Solar	March 2026	All States	Pipe-Separated Values	NO DATUM	186.79 MB	31 Mar, 2026	
National Buildings	National Buildings - Roof	March 2026	All States	Pipe-Separated Values	NO DATUM	238.48 MB	31 Mar, 2026	

6.2 For “Building Footprints” customers

- You only need to download one file.
- From the Geoscape Hub menu, go to the **Datasets > Standard** page.
- In the **Product** field, select **National Buildings**.
- Enter your preferred **Region**, **Format** and **Datum** (Note: Footprint data will be available in more formats than it was previously).
- **Enable** the toggle **Latest Release** to filter out previous releases.
- You do not need to enable the Insight Pack toggle.
- Select and download the base “National Buildings” product.



7 Annex C – Changes to accessing Buildings data via the Datasets API

Previously, the full Buildings dataset in each format was provided as a single ZIP package, however, from the March 2026 release, you will need to get the base Buildings product and include the additional Insight Packs to maintain a full Buildings dataset.

There is more detailed guidance on updates to the Datasets API available here and we recommend you review this carefully.

In summary:

- The API response has been changed to include “child” products (Insight Packs) when a parent product is requested.
- The Insight Packs are format **PSV** and datum **NO DATUM**. If you are using `format` and `datum` as query parameters, please ensure you are accommodating these values so that Insight packs are not filtered out of your results.
- Version numbering will change with the March release. If you are using this in your logic, please note the changes described under Changes to Packaging – Versioning in the information sheet linked above.
- From the March 2026 release, the response to List Datasets will return a variation of the following five datasets:

name	product	parentProduct
National Buildings	BUILDINGS	-
National Buildings - Height	BUILDING-HEIGHT	BUILDINGS
National Buildings - Roof	BUILDING-ROOF	BUILDINGS
National Buildings - Solar	BUILDING-SOLAR	BUILDINGS
National Address Pool	ADDRESS-POOL	BUILDINGS

The following is an example API response:


```
"datasets": [
{
"name": "National Buildings",
"description": "",
     "product": "BUILDINGS",
     "region": "ALL STATES",
     "format": "GDB",
     "release": "2026-03",
     "datum": "GDA2020",
     "publishDate": "2026-03-29",
     "version": 4000001,
     "classification": "STANDARD",
     "id": "85d8c46b47c74b30946a8274a9046090",
     "versionString": "004-000-001",
```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```
    "size": 7955369553,
    "status": "published",
    "licenced": false
  },
  {
    "name": "National Buildings - Height",
    "description": "",
    "product": "BUILDING-HEIGHT",
    "parentProduct": "BUILDINGS",
    "region": "ALL STATES",
    "format": "PSV",
    "release": "2026-03",
    "datum": "NO DATUM",
    "publishDate": "2026-03-29",
    "version": 4000001,
    "classification": "STANDARD",
    "id": "d51d8f6f120e9b8950e71646ab0d5117",
    "versionString": "004-000-001",
    "size": 300784136,
    "status": "published",
    "licenced": false
  },
  {
    "name": "National Buildings - Roof",
    "description": "",
    "product": "BUILDING-ROOF",
    "parentProduct": "BUILDINGS",
    "region": "ALL STATES",
    "format": "PSV",
    "release": "2026-03",
    "datum": "NO DATUM",
    "publishDate": "2026-03-29",
    "version": 4000001,
    "classification": "STANDARD",
    "id": "200624c5574e9b3c3deede2595253591",
    "versionString": "004-000-001",
    "size": 250064536,
    "status": "published",
    "licenced": false
  },
  {
    "name": "National Building Solar",
    "description": "",
    "product": "BUILDING-SOLAR",
    "parentProduct": "BUILDINGS",
    "region": "ALL STATES",
    "format": "PSV",
    "release": "2026-03",
    "datum": "NO DATUM",
    "publishDate": "2026-03-29",
    "version": 4000001,
    "classification": "STANDARD",
    "id": "72179abe53d5cc533aebdcac24c8b01a",
    "versionString": "004-000-001",
    "size": 195864700,
    "status": "published",
```


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```
    "licenced": false
  },
  {
    "name": "National Address Pool",
    "description": "",
    "product": "ADDRESS-POOL",
    "parentProduct": "BUILDINGS",
    "region": "ALL STATES",
    "format": "PSV",
    "release": "2026-03",
    "datum": "NO DATUM",
    "publishDate": "2026-03-29",
    "version": 1000001,
    "classification": "STANDARD",
    "id": "f9a0cba37014b0ef4c874e2800024836",
    "versionString": "001-000-001",
    "size": 294829450,
    "status": "published",
    "licenced": false
  }
      ],
```


References

[Aerometrex, 2023] Aerometrex. Aerial imagery. Raster Dataset, 2023. URL: https://aerometrex.com.au/.

[Geoscape, 2023] Geoscape. Local government areas 2.0. 2023. URL: https://docs.geoscape.com.au/projects/lga_guide/en/stable/index.html.