

Transforming GDA94 <> GDA2020 using AutoCAD Map

Assumptions:

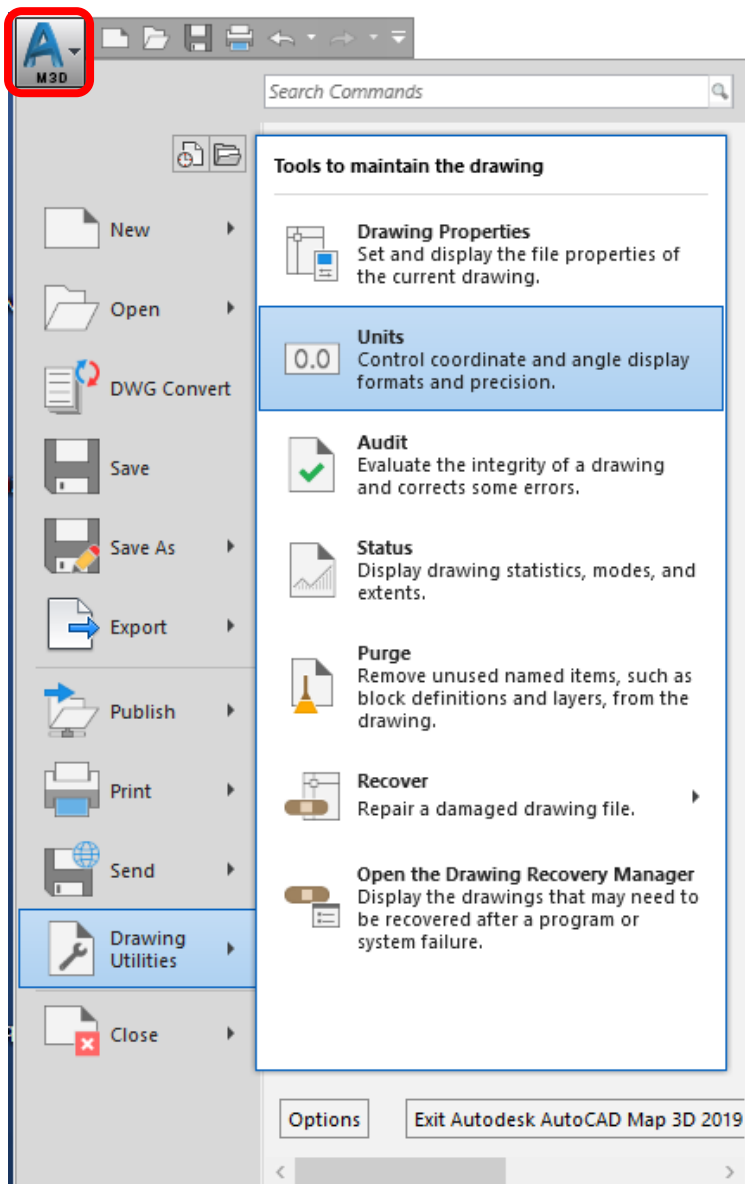
- Data falls within the (mainland) Mackay Local Government Area (i.e. UTM Zone 55)
- Dataset is in grid coordinates (i.e. Easting and Northing)
- The coordinate system of the dataset is MGA94 and the user is transforming to MGA2020

Pre-requisites

- AutoCAD Map 3D 2019+

Step 1: Specify the drawing units

1. Click the **Application Button > Drawing Utilities > Units**



This fact sheet provides an overview of the steps to follow when transforming datasets from the GDA94 datum to the GDA2020 datum using AutoCAD Map software. It has been written for users who may not be familiar with AutoCAD.

Further Information

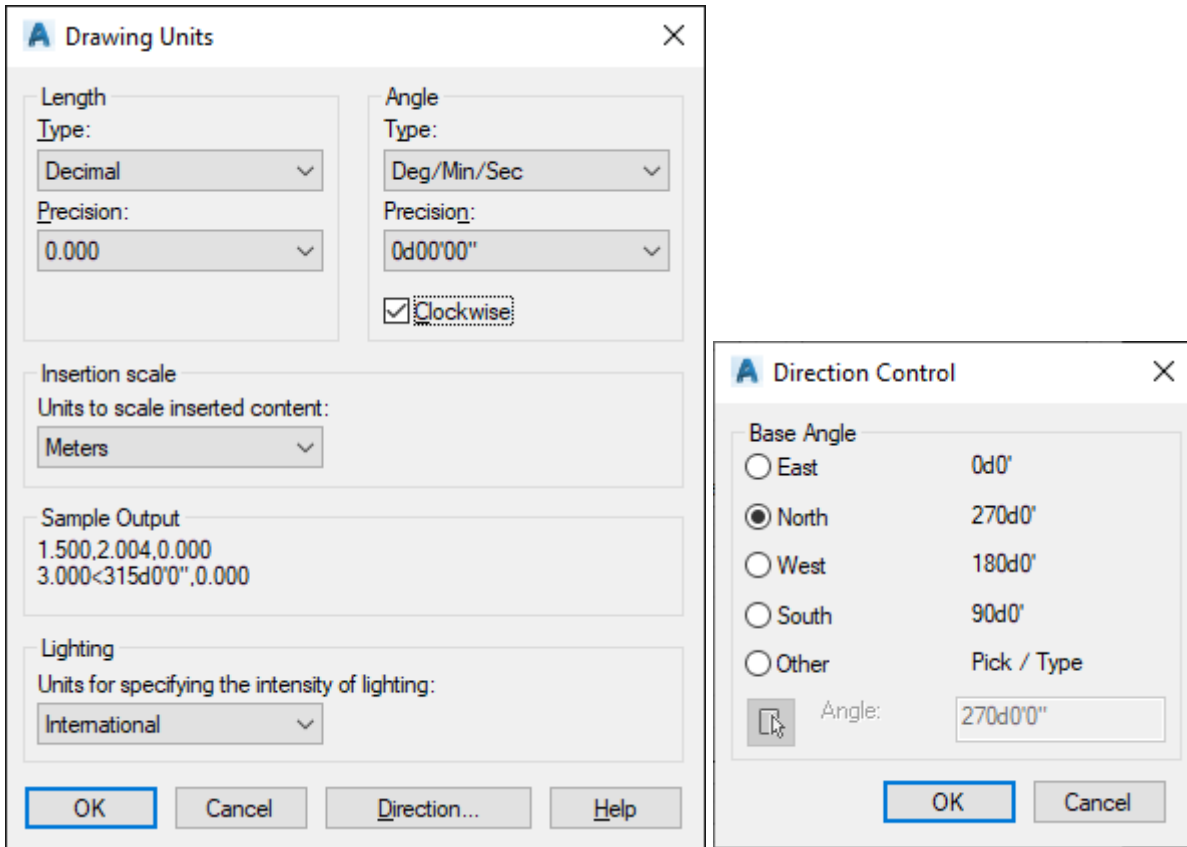
Refer to AutoCAD documentation:
<http://help.autodesk.com/view/MAP/2021/ENU/?guid=GUID-8ABA6E8F-17E9-4202-981C-67E45F2D61B8>

For detailed information about GDA94<>GDA2020 transformations refer to the Technical Manuals and Factsheet on the ICSM website:
<https://www.icsm.gov.au/gda2020-and-gda94-technical-manuals>

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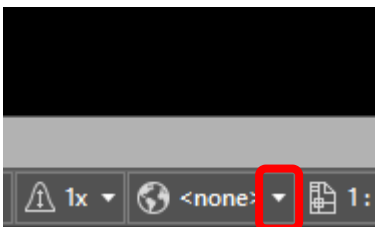


2. Select the appropriate metric units

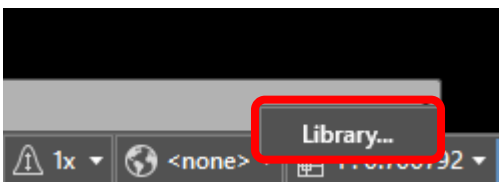


Step 2: Assign a coordinate system to the drawing containing the dataset

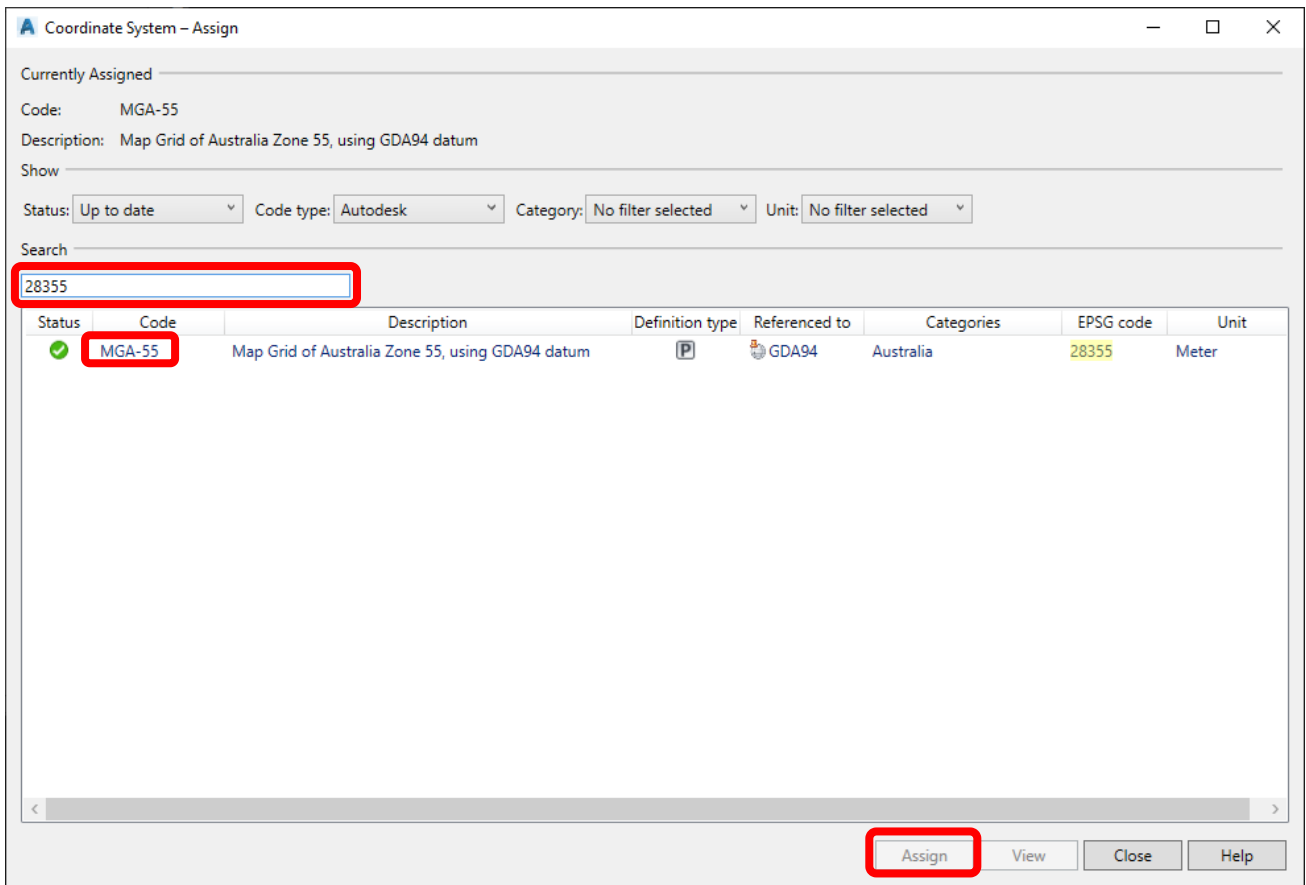
1. On the status bar, click the **down arrow** next to the coordinate system



2. Click **Library**



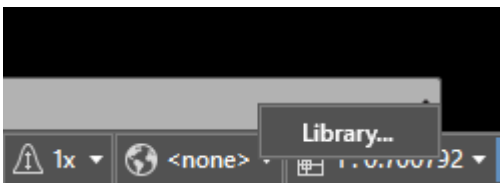
3. Search for **28355**
4. Double-click the **MGA-55** coordinate system
5. Click **Assign**



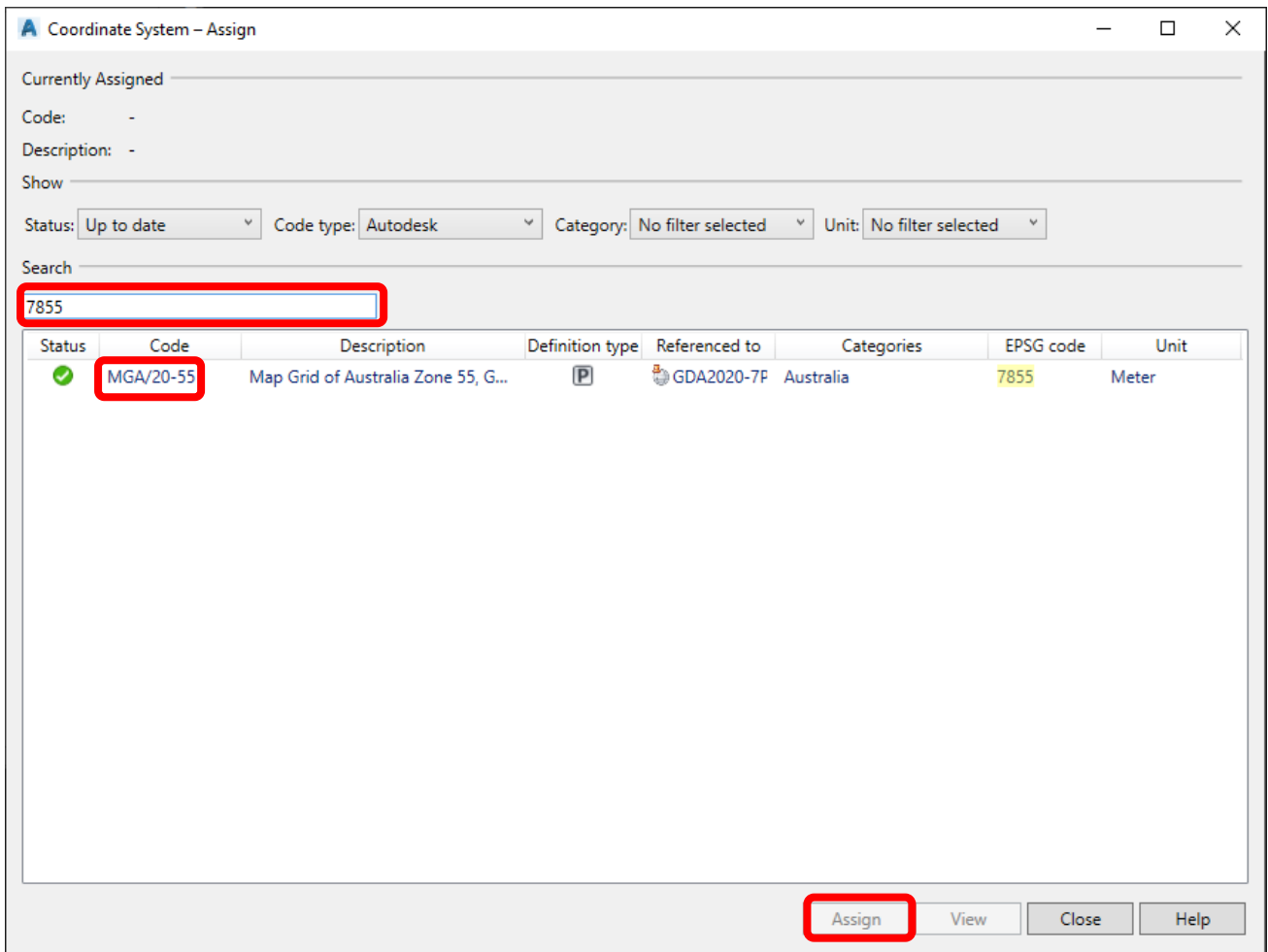
6. Close the DWG

Step 3: Assign a coordinate system to a new drawing

1. Specify the drawing units as in [Step 1](#)
2. On the status bar, click the **down arrow** next to Coordinate System then click **Library**

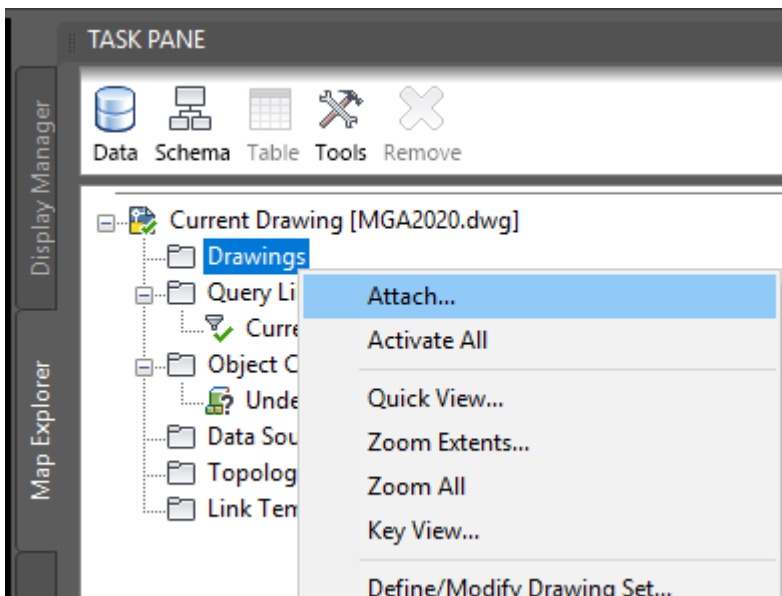


3. Search for **7855**
4. Double-click the **MGA/20-55** coordinate system
5. Click **Assign**

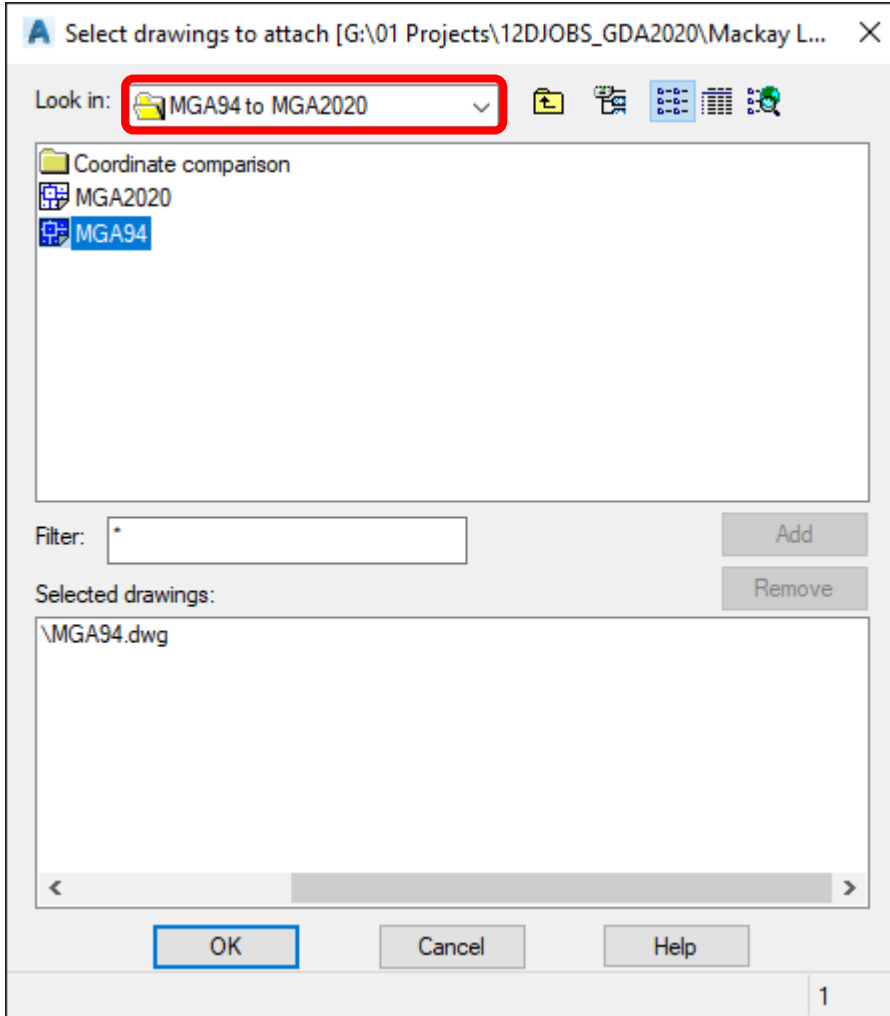


Step 4: Import the dataset into the new drawing

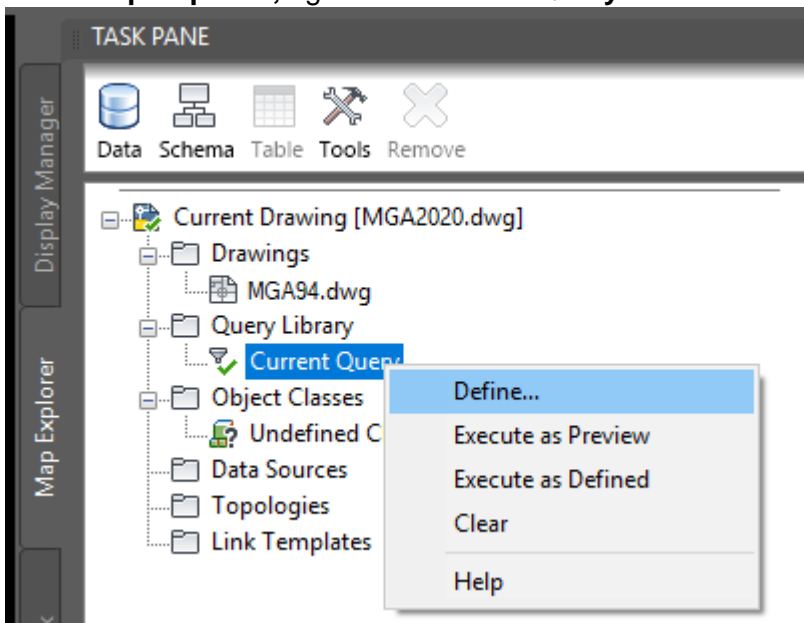
1. In the **Map Explorer**, right-click **Drawings** then click **Attach**



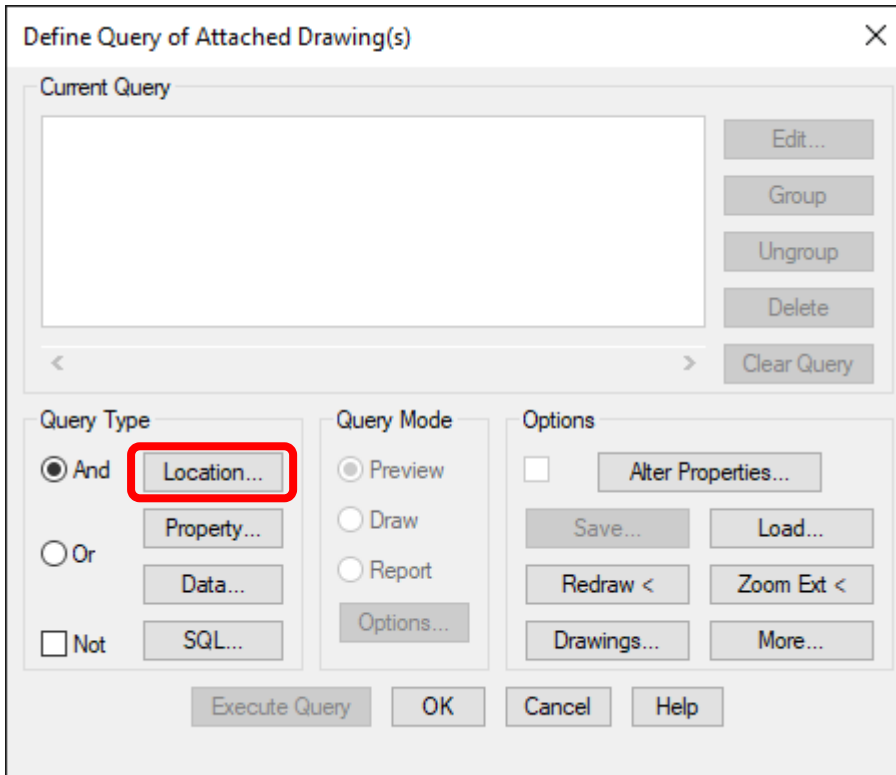
- Browse to the dataset DWG location, double-click to select the drawing, then click **OK**



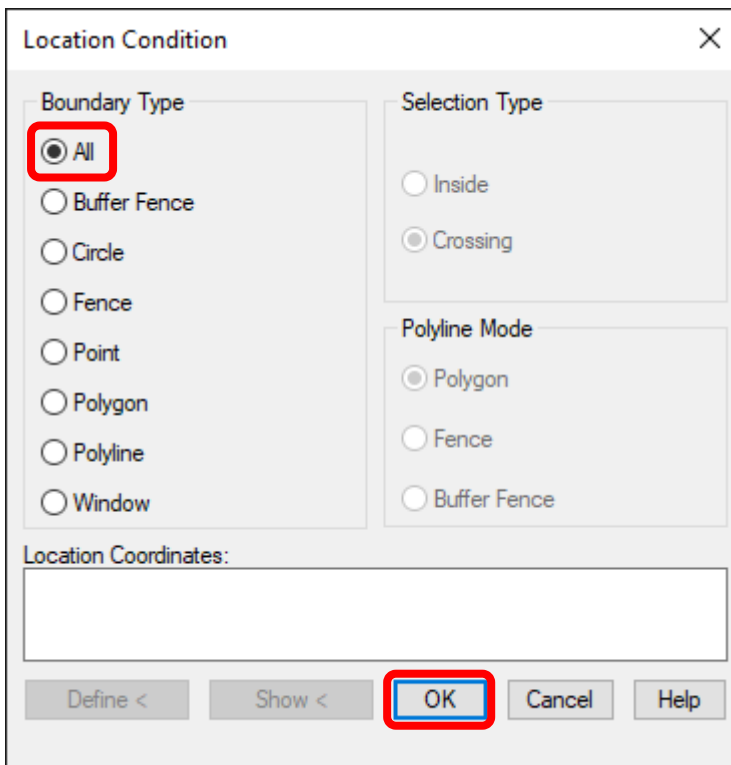
- In the **Map Explorer**, right-click **Current Query** then click **Define**



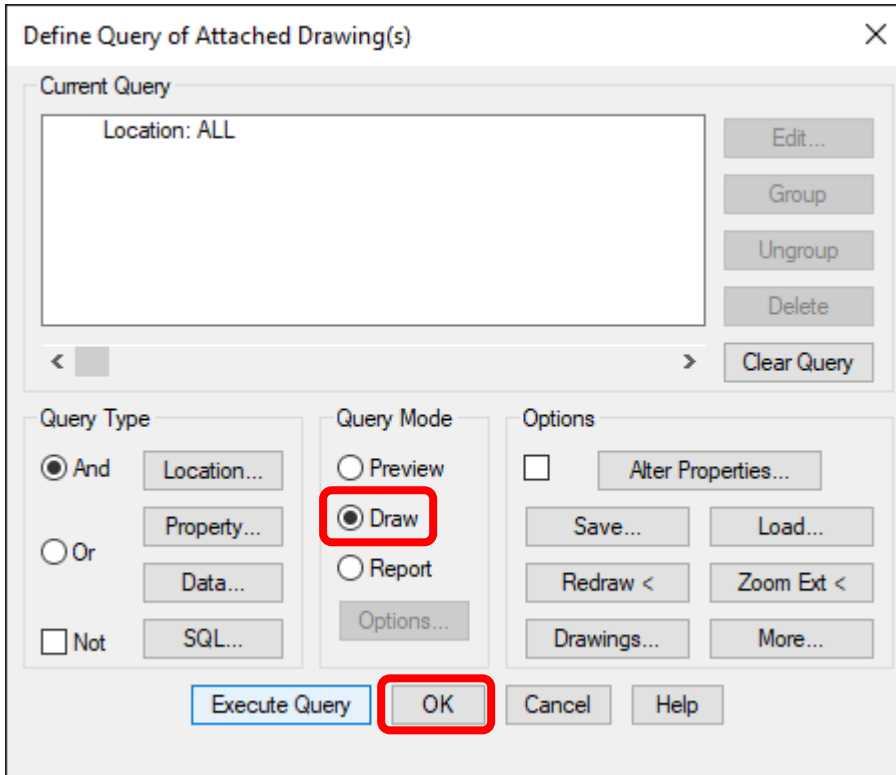
4. Click **Location**



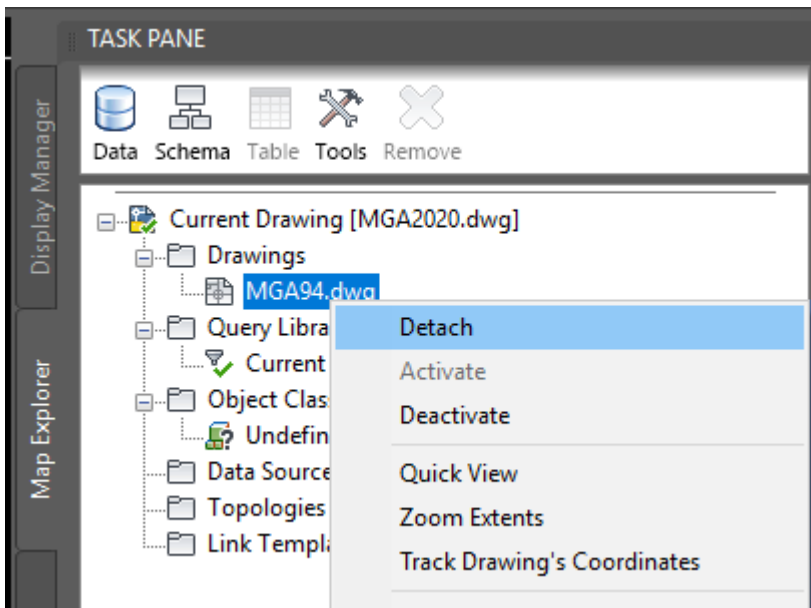
5. Select Boundary Type **All**, then click **OK**



6. Select Query Mode **Draw**, then click **Execute Query**



7. In the **Map Explorer**, right-click on the name of the original drawing then click **Detach** to preserve the original data



*GDA_1994_To_GDA2020_1 will apply a 7-parameter similarity transformation to the data, delivering the same result as the GDA94-GDA2020 conformal only transformation grid recommended for use in Queensland. Refer to the [Geocentric Datum of Australia 2020 Technical Manual](#) and [AutoCAD documentation](#) for more detail.