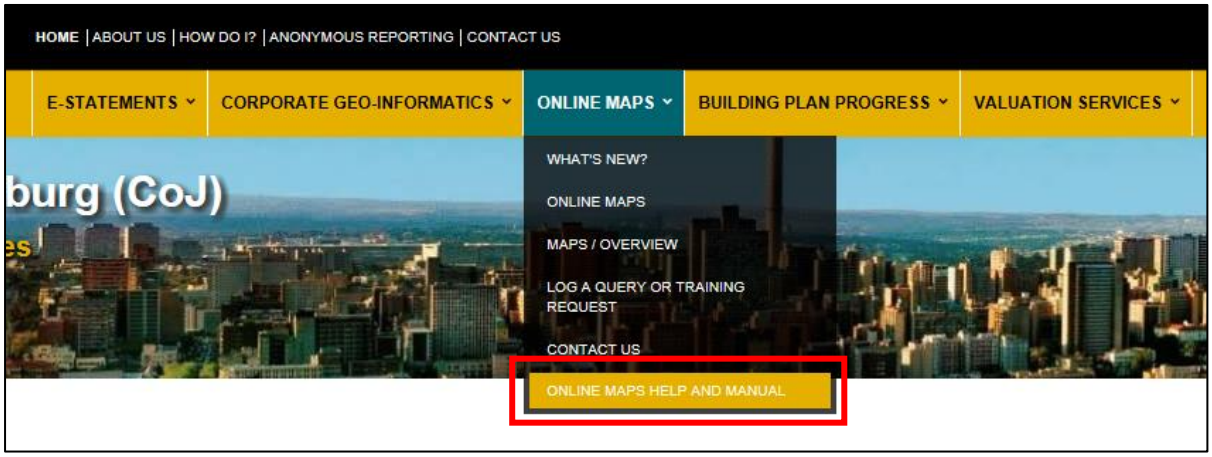
ONLINE MAPS VIEWER HELP MANUAL

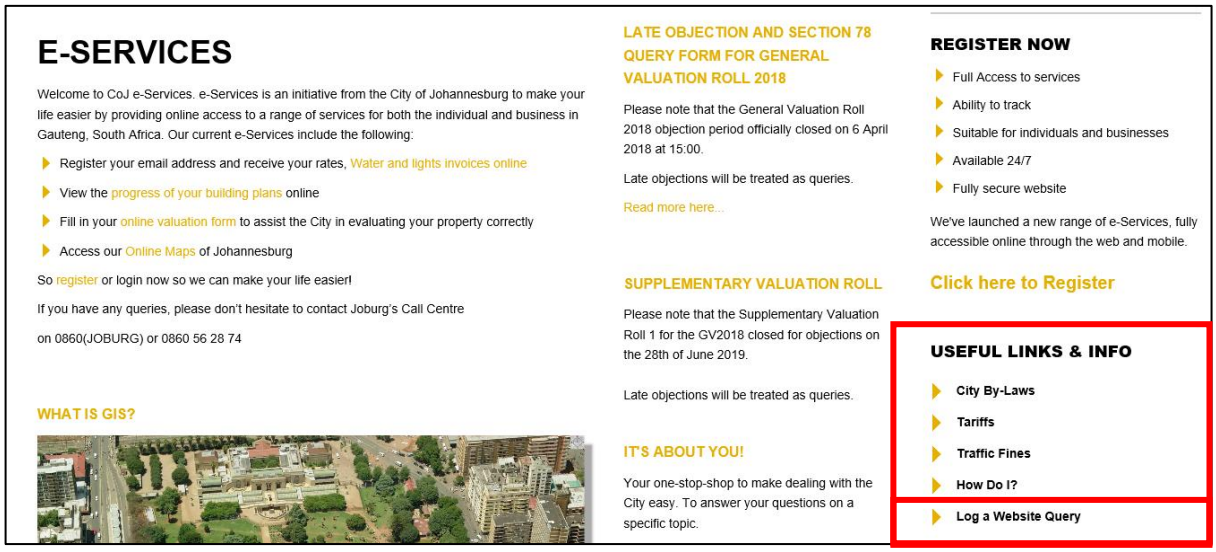
The Online Maps Viewer is the City of Johannesburg's latest GIS website to be developed, and is compatible with several browsers, including Internet Explorer, Google Chrome, Mozilla Firefox, etc.!

This training manual aims at teaching the user the **basic** tools necessary for navigating through the website with ease. Please contact us if you require assistance with any of the content of this manual or problems relating to the website at ims@joburg.org.za or call 011 407-6159.

This is the latest version of the Online Maps Help Manual, created and published on 30 September 2024. It can be accessed on eServices (https://eservices.joburg.org.za) via the Online Maps tab, shown below:

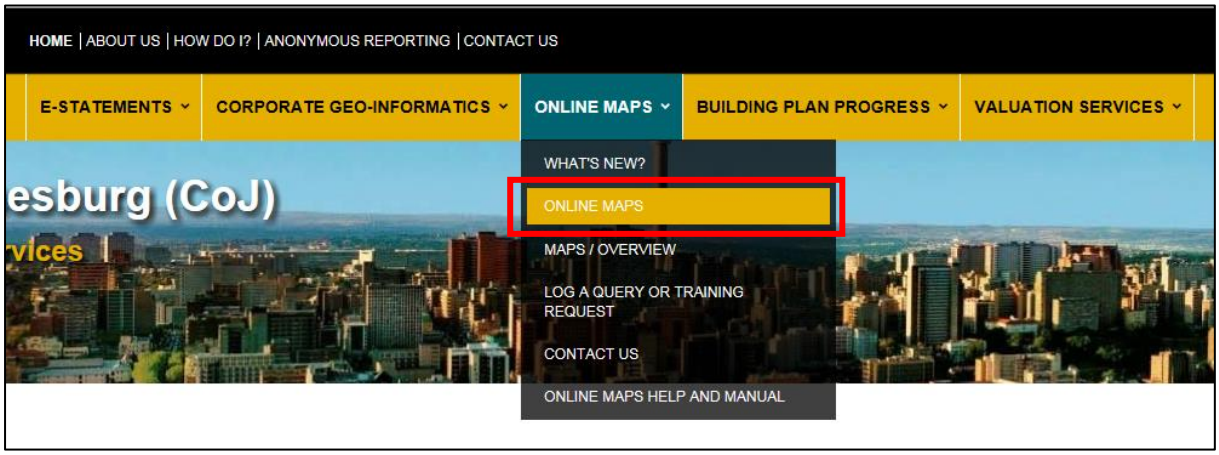


Should you experience problems with the accessing the maps, use the "**Log a Website Query**" link found on the right-hand side of the e-Services Homepage, under the 'Useful Links & Info' section, as shown in the image below. This will send an email directly to IT Services to have your registration issues resolved timeously.



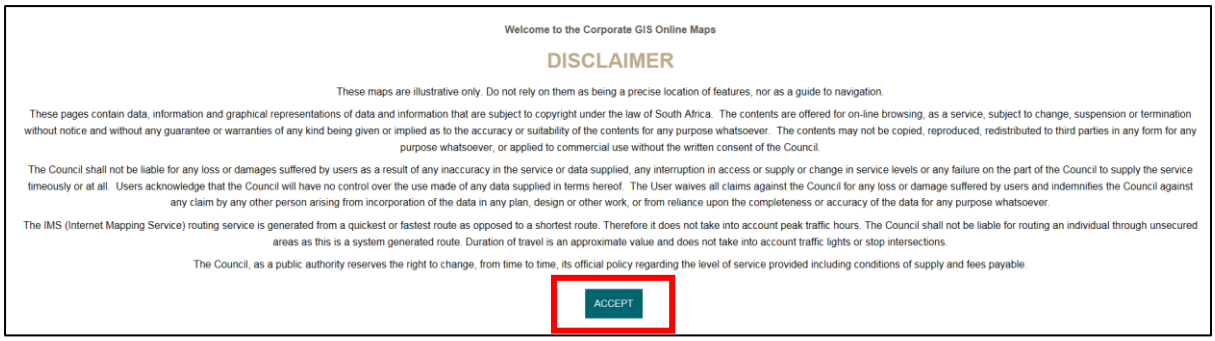
Please note: You are **no longer required** to register as an eServices client in order to access the Online Maps website.

To access the maps, go to eServices (https://eservices.joburg.org.za), place your mouse over the Online Maps tab, and click on “Online Maps”, as shown below:



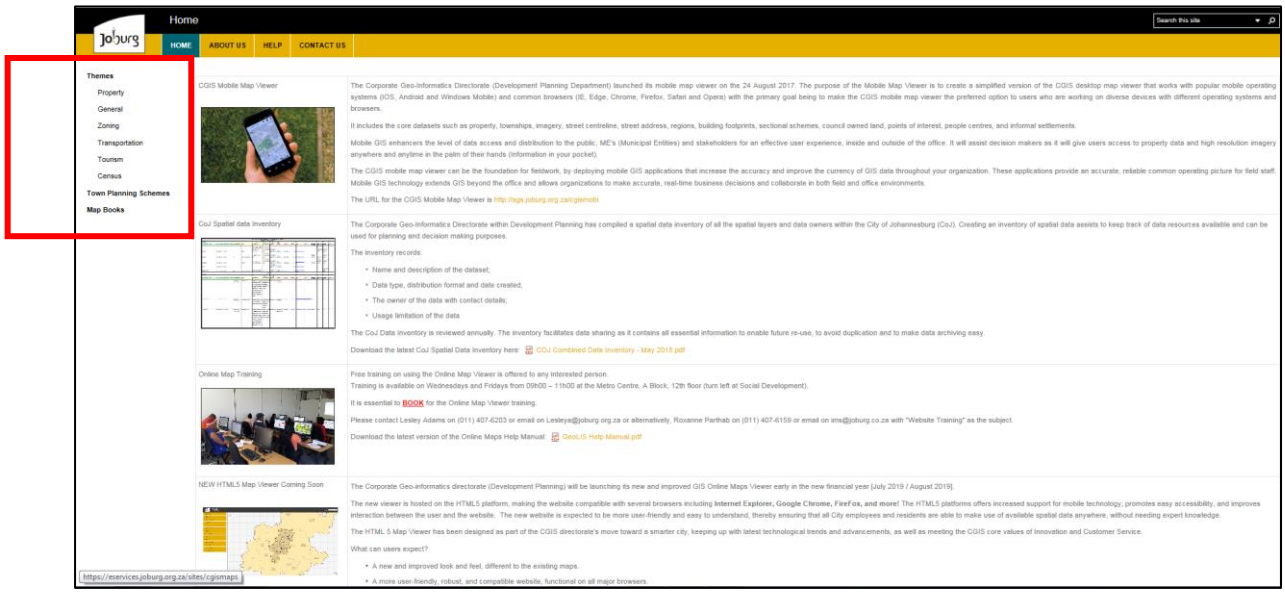
Alternatively, you can access the maps directly using the link below:
https://eservices.joburg.org.za/new-maps

Thereafter, a disclaimer will appear on the screen, which the user must accept, as shown below.

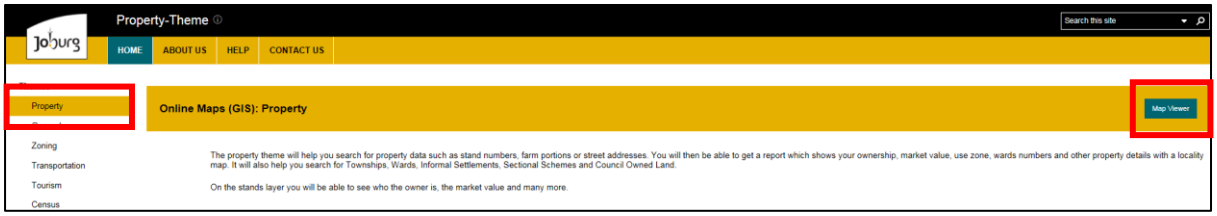


THE HOME PAGE

Once the disclaimer has been accepted, users will be redirected to the SharePoint Homepage, shown below. On the left, the home page displays the **Themes** available to the user, as shown in the red box.

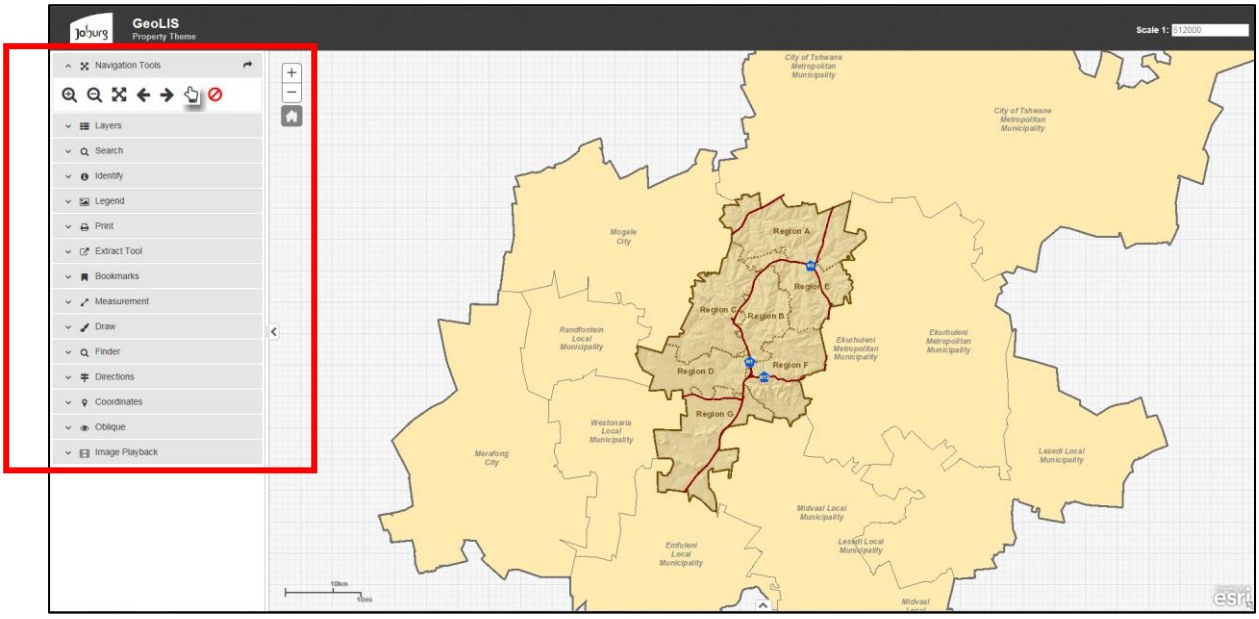


To access a theme, click on the theme name (e.g. Property) on the left-hand side of the screen, and then click on “Map Viewer” that appears on the right-hand side of the screen, as shown below.



THE LANDING PAGE

After clicking “Map Viewer”, the **Landing Page**, shown below, becomes visible. The Landing Page displays the full extent of the City of Johannesburg and has various tools in the Table of Contents on the left-hand side of the page, as shown in the red box. Each tool will be discussed in this manual.



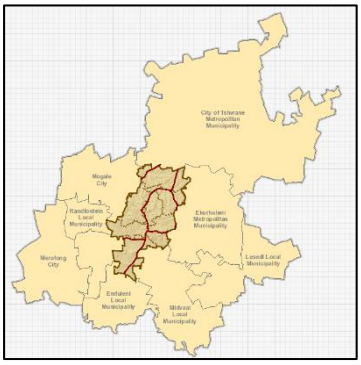
THE ZOOM TOOLS

The icon shown above is used to zoom into and out of the map and are explained in the table below:

+	This is the “**Zoom In**” tool. Simply click on this icon for the map to zoom in. This displays a smaller region of the map, showing more detail of the specified area. This tool is useful when you want to focus the map on a specific property, stand, or building.
−	This is the “**Zoom Out**” tool. Simply click on this icon for the map to zoom out. This displays a larger region of the map, showing a greater area than when zoomed in. This tool is useful when you want to focus the map on larger areas such as a township extent, ward or an entire region.

Tip: You can also zoom in and out of the map using the wheel of your mouse. Roll the wheel on the mouse toward you to zoom out or roll the wheel away from you to zoom in.

THE DEFAULT EXTENT 

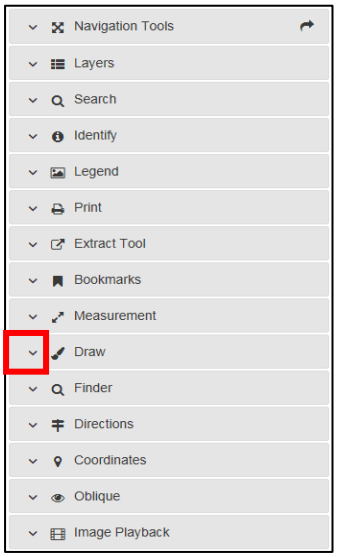


The Default Extent icon, shown above, is used to take the map back to the original extent, as seen on the landing page.

This is useful when the user wants to zoom all the way out of the map and view the full extent of the City of Johannesburg; navigate to different regions; view the City in relation to neighbouring municipalities within Gauteng Province, etc.

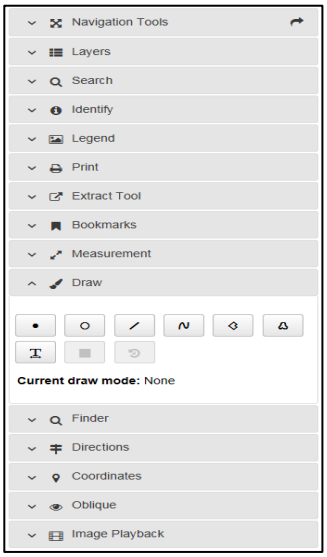
To do this, click on the home icon shown above and the map extent will return to default, as shown on the left.

TABLE OF CONTENTS



On the left side of the HTML5 Map Viewer page is a Table of Contents, with a list of various categories, as shown in the image on the left. Each category available has a different function and can be accessed by clicking on the arrow next to the category title, as show in the red box on the left. Once you click on the arrow, the category in the Table of Contents will expand and more functions or options become available below the category title, as can be seen in the example on the right.

The function of each category is discussed in greater detail below.



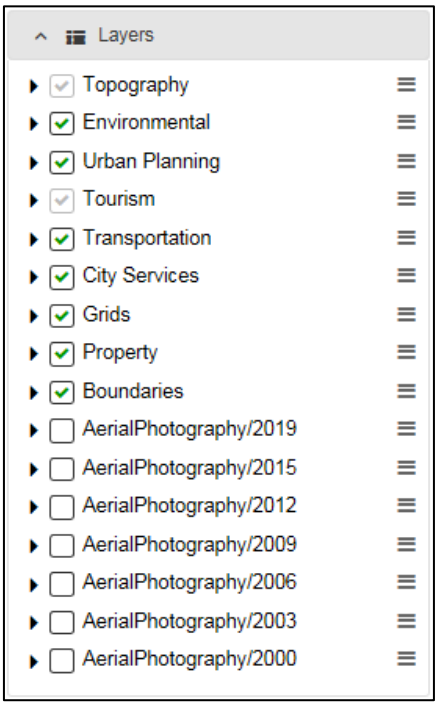
NAVIGATION

"Navigation", shown above, is the first category available on the Table of Contents, found on the left-hand side of the map. The navigation tools are explained in the table below:

	This is the "**Zoom In**" tool. Simply click on this icon for the map to zoom in. This displays a smaller region of the map, showing more detail of the specified area. This tool is useful when you want to focus the map on a specific property, stand, or building.
	This is the "**Zoom Out**" tool. Simply click on this icon for the map to zoom out. This displays a larger region of the map, showing a greater area than when zoomed in. This tool is useful when you want to focus the map on larger areas such as a township extent, ward or an entire region.
	This is the "**Full Extent**" tool. By clicking on this icon, you will be taken back to the entire extent of the map (i.e. the first extent you see when you open up the map viewer).

	This is the "**Previous Extent**" tool. When you click on this icon, it will take you back to the previous extent/scale/view that the map was in before another navigation action was taken.
	This is the "**Next Extent**" tool. This tool becomes activated when you use the 'previous extent tool'. To return to the extent you were at before using the 'previous extent' tool, simply click on this icon.
	This is the "**Pan**" tool. It is the default navigation option when the Map Viewer opens up. Simply click on this icon and use your mouse to drag the map and move it around. This re-centres the map to the point at which you panned it.
	This is the "**Deactivate navigation**" tool. It is used to turn off any navigation tool, listed in this table that is currently active during the map session.

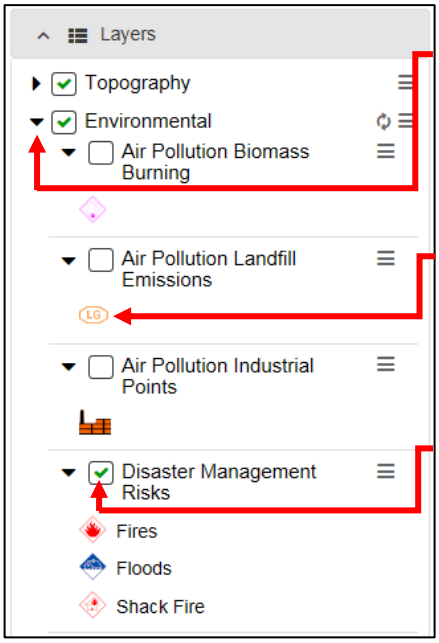
LAYERS



"Layers", shown above, is the second category available on the Table of Contents, found on the left-hand side of the map. The Layers option contains all of the datasets available for display on the map under several sub-categories, as show on the left.

Each layer contains different kinds of spatial information that can be viewed by checking the box next to it. Ensure that the main check box is activated in order for layers to remain visible.

The Layers option also contains the website's aerial imagery which can be turned off and on when needed. It is turned off by default.

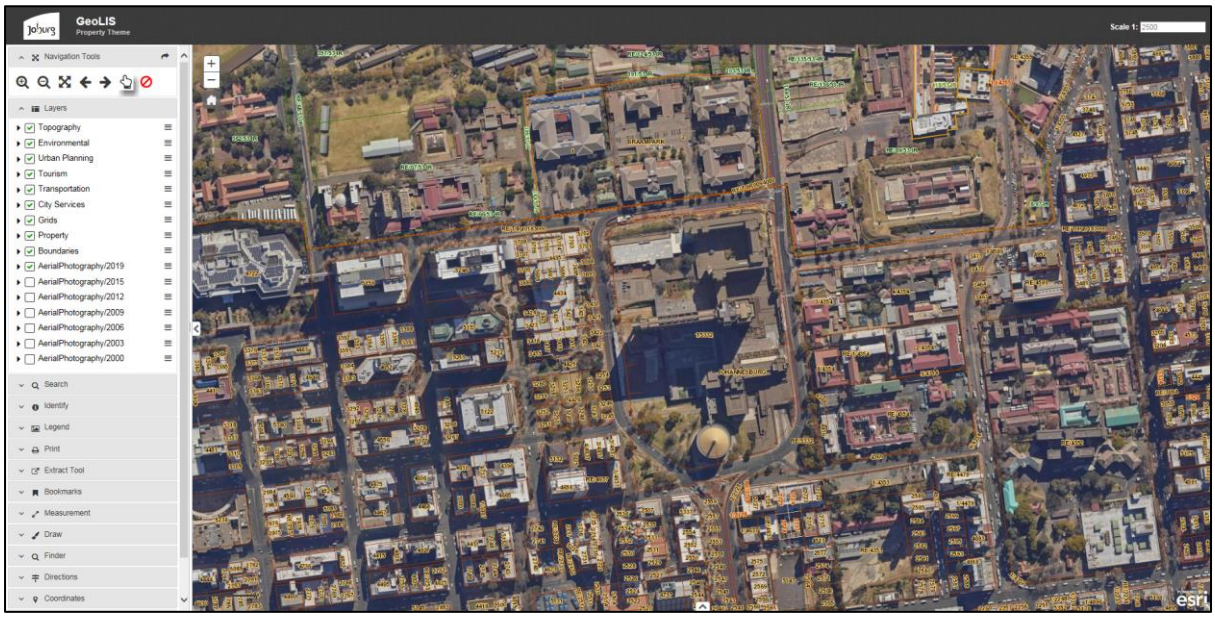


Click on the black arrow next to each sub-category to expand it. The user is then able to see what datasets are available, such as Street Addresses, Building Footprints, etc., as shown in the example on the left.

Symbols that are used to represent each dataset are shown below the layer name so that the user can identify the layers on the map.

Datasets can also be turned on and off under the Layers option. Turning layers on and off can be done by checking/unchecking the box next to the layer name. A green tick appears in the box when a layer is turned on, as shown on the left.

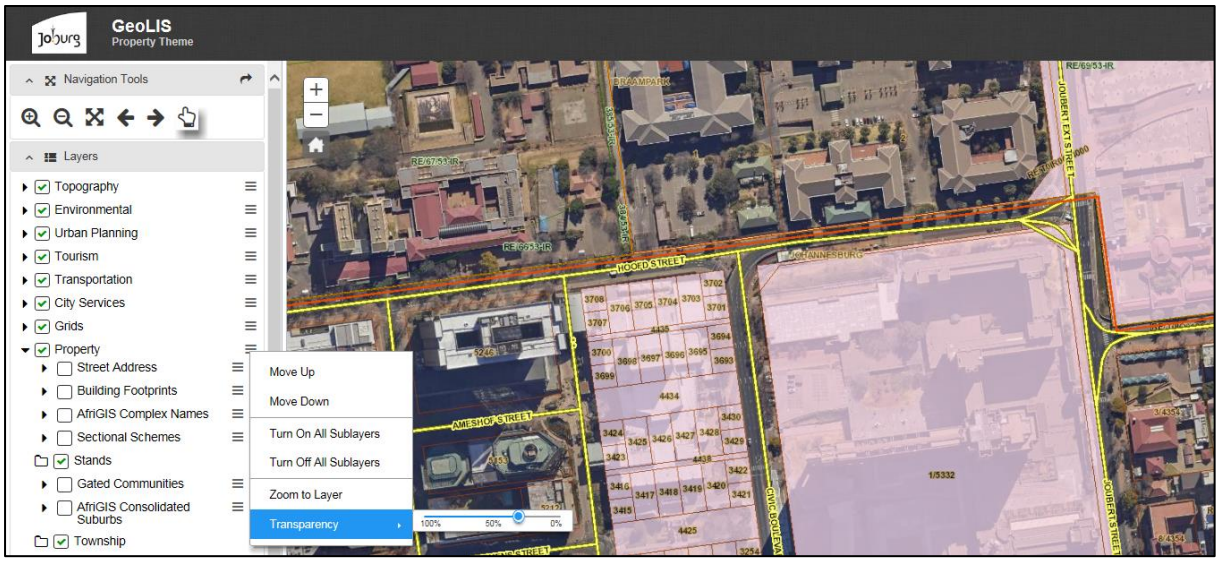
The latest aerial imagery available was collected in 2019. To turn it on, check the box next to the imagery name in the Layers category. The aerial imagery will then appear on the map as shown in the image below:



Layer transparency:

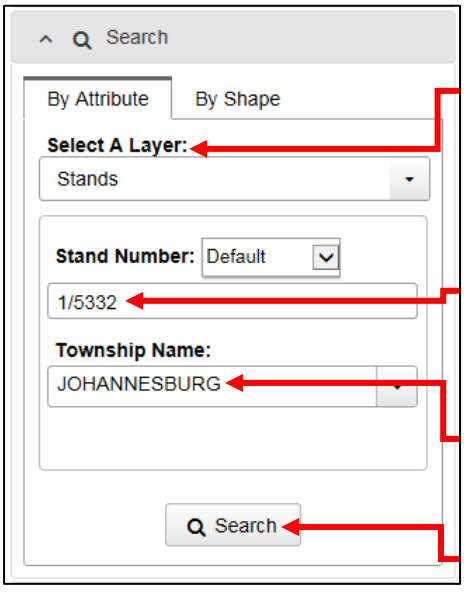
Some layers appear as solid-coloured polygons (e.g. Council-owned Layer appears as solid pink polygons). The transparency of these layers can be temporarily adjusted in order to see the layers below it (such as aerial imagery).

To adjust the transparency of a layer, click on the **three-lines** next to the group layer name (e.g. Property), then click on "**Transparency**", and adjust the transparency on the bar accordingly, as shown in the example below.



SEARCH

The "Search" option, shown above, is used to search for features on the map. When expanded, the Search option displays two tabs by which the user is able to conduct a search, as explained below.

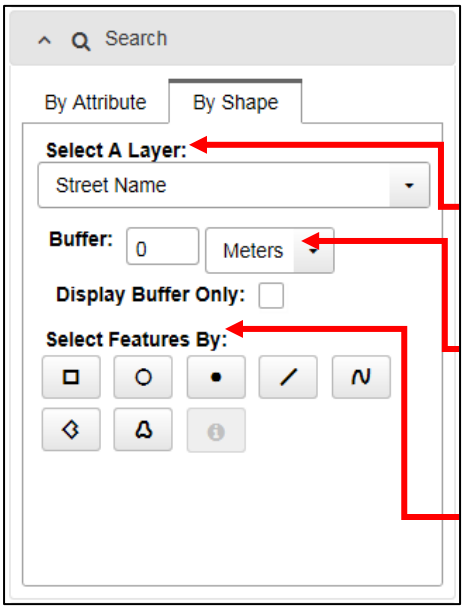


The "**Search By Attribute**", shown on the left, allows the user to search for a feature on the map from a specific layer.
Click on "Select A Layer" to choose the layer to search from based on the information you have (e.g. if you know the stand number of a property but not the street address, select "Stands" from the drop-down list).

Type the stand number for the property in question in the space bar under "Stand Number".

Under "Township Name" begin typing the name of the Township that the property falls within and select the correct Township name from the drop-down list that appears.

Once complete, click "Search".



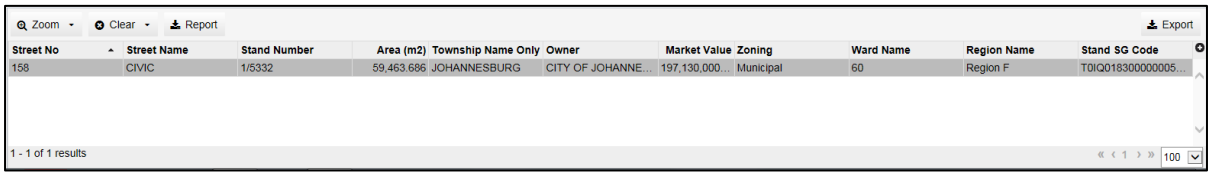
The "**Search By Shape**", shown on the left, allows the user to search for features or records on the map from a specific layer that fall within a drawn boundary or specified buffer tolerance.

Click on "Select A Layer" to specify the layer to search within (e.g. Street Name).

Create a buffer (optional) within which the search must work. This will limit the amount of records that are returned to those that match the criteria and only fall within the specified buffer distance.

Use the "Select Features By" options to draw a shape on the map. All features within the shape will be included in the search.

If there are any results matching your search, a Results Table, as shown below, will appear containing information relating to each property that matches the search criteria. Clicking on the record will highlight the record and zoom to its location on the map.

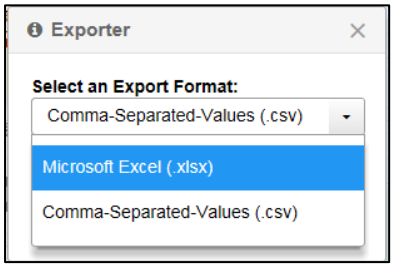


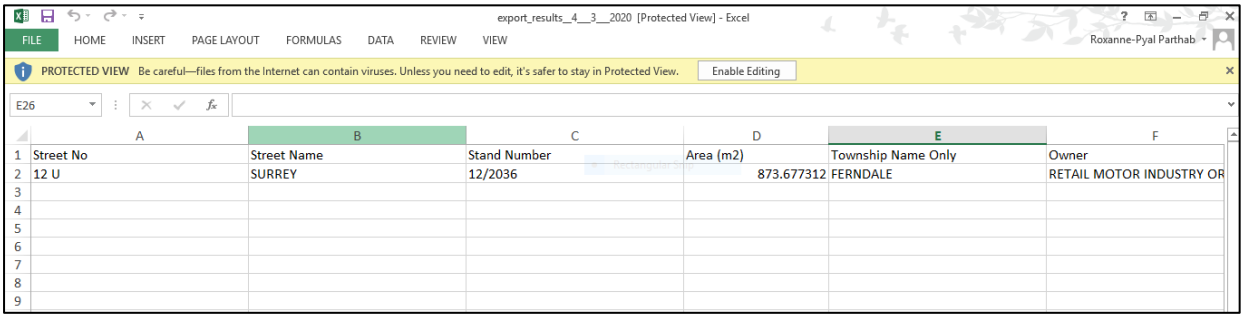
There are 4 options available on the Results Table shown in the panel above the result, namely, "Zoom", "Clear", "Export", and "Report", explained below.

Zoom: This allows the user to zoom into one, or all, of the search results available in the Results Table.

Clear: This allows the user to remove one, or all, of the search results available in the Results Table.

Export: This allows the user to extract and save the search results in either a Microsoft Excel or Comma-Separated-Values format, as shown in the image below.





Report: allows the user to generate a PDF/PNG showing the property information and locality of the selected result, as shown in the example below:

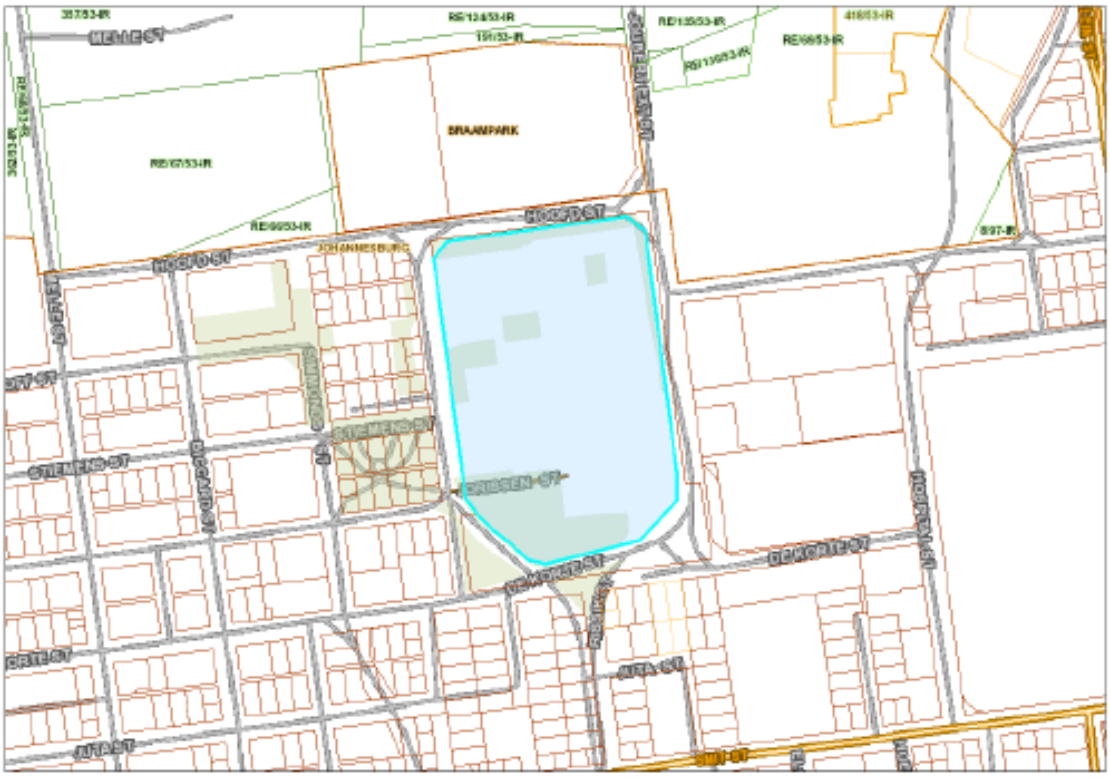
CITY OF JOHANNESBURG: Corporate Geo-Informatics

Stands Search Report

Reports generated from the website can be used for the purpose of zoning information. Zoning information must be read in conjunction with the applicable Town Planning Scheme clauses and Amendment Scheme relevant to the erf. More information can be obtained from the information desk on the 5th floor, Metro Building, Braamfontein.

OBJECTID	590965
Street No	158
Street Name	CIVIC
Stand Number	1/5332
Area (m2)	59463.6859846
Township Name Only	JOHANNESBURG
Owner	CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY
Market Value	197130000
Zoning	Municipal
Ward Name	60
Region Name	Region F
Stand SG Code	T0IQ0183000000053320000100

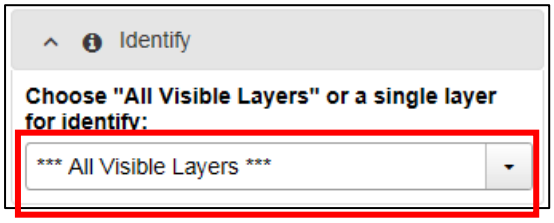
Map of the location



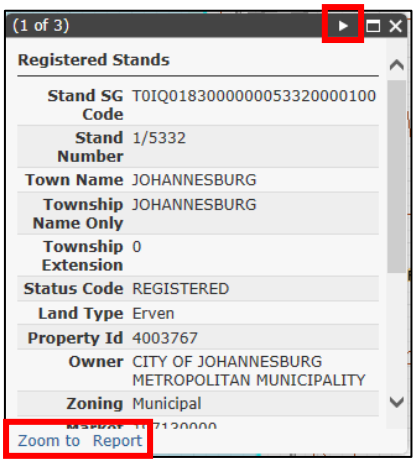
Tue Dec 17 2019

Amendment Scheme 1

IDENTIFY



The "Identify" option, shown above, allows the user to query information relating to a specific layer. When the user clicks on the arrow next to the Identify icon, identification options become available, as shown on the left. By clicking on the arrow of the bar shown in the red box, the user can choose a specific layer to identify or leave the default "All Visible Layers" option on.

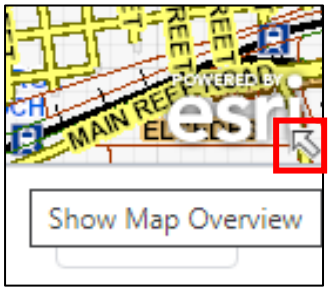


To identify a layer on the map, simply click on a point on the map you wish to identify and the map will generate a pop-up box showing information relating to the layer/property at that point, as shown on the left.

If there is more than one page of information available, it will be indicated on the left of the table (e.g. "(1 of 2)"). To view each page, click on the arrow shown in the red box on the left and a new page of information for the next layer will be shown.

The user also has the option to "Zoom to" the property or generate a property "Report" using the option on the bottom left of the results pop-up, shown in the red box on the left.

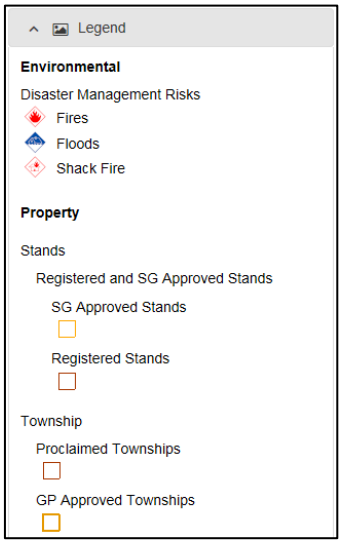
MAP OVERVIEW



The map overview tool can be found on the bottom-right corner of the screen. The map overview tool is used to produce a locality of the user's current position in relation to the full extent of the map.

By clicking on the small **white arrow**, shown in the red box on the left, an overview map will appear on the corner of the screen highlighting the user's current position (in purple) on the map within the entirety of the municipal boundary, as shown in the image on the right.

LEGEND

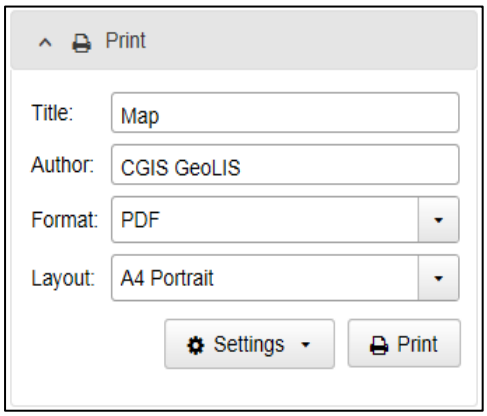


The “Legend” category, shown above, provides the user with a key or explanation of data that is presented on the map. The Legend only displays layers and its corresponding symbols that are turned on in the Layers option (previously discussed).

Click on the arrow next to the word “Legend” to view the various layers that are turned on and see the symbol used to represent that layer on the map, as shown on the left.

PRINT

The “Print” option, shown above, is used to print the map extent to a PDF document which can then be saved, emailed, or used for report purposes outside of the mapping session.



By clicking on this icon, the user opens up a printing table, as shown on the left. The user can then give the map a title by clicking in the text box next to “Title” and typing; enter an “Author” name to indicate the creator of the map; change between PDF and PNG format by clicking on the arrow next to “Format”; and select a type of layout by clicking on the arrow next to “Layout”. The “Settings” option allows the user to change the map scale, scale bar units, and print quality of the map. Click the “Print” option once complete. A PDF/PNG of the map will appear in the printing table which the user can click on to open.


BRAAMPARK
JOUBERT EXT STREET
RE/69/53 IR
HOOFD STREET
JOHANNESBURG
KOTZE STREET
CIVIC BOULEVARD
JOUBERT STREET
JORISSEN STREET
DE KORTE STREET
PASSAGE STREET
Map
PREPARED BY:
CGIS GeoLIS
DATE:
22/09/2022
City of Johannesburg
CORPORATE GEO-INFORMATICS
1:2 000
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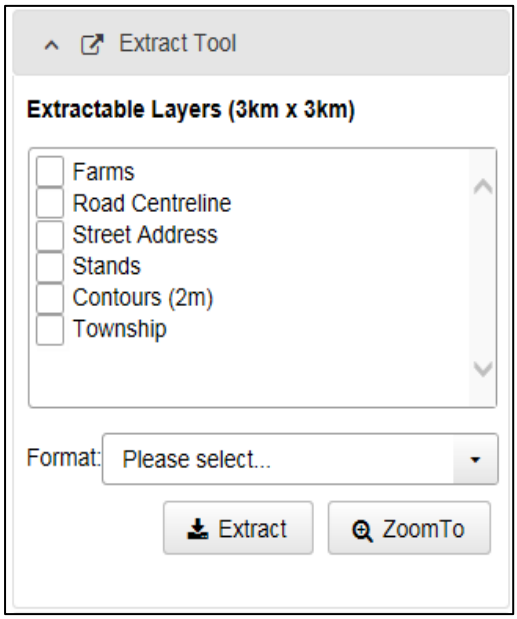
EXTRACT TOOL

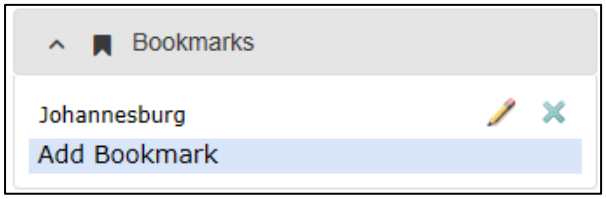


The "Extract Tool" option, shown above, allows users to extract GIS data from the mapping session to be used externally.

The Extract Tool option presents the user with a list of extractable layers that can be exported, as shown in the box on the left. To extract data, the user must click on the "Extract Tool" option and then check the boxes next to the extractable layers that is required.

Once this is done, the user must click on a centre point on the map. Data of the checked layers that fall within a 3km x 3 km radius from the centre point is then generated. The "Format" option allows the user to choose between shapefile, DXF, and KML format. To start the extraction, once the above process has been followed, click on "Extract".

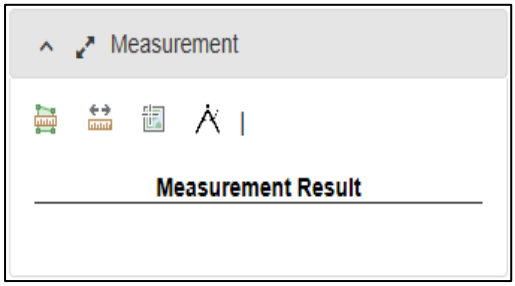
BOOKMARKS



The "Bookmark" option, shown above, allows the user to save the current extent of the map in a bookmark that can be accessed later on, as required. Bookmarks are useful when the user wishes to refer back to the same area/property on several different occasions because it saves the bookmarked extent even after the user exits the map viewer and returns at a later stage.

To add a bookmark to the map, click "Add Bookmark" and give the bookmark a name (e.g. name of the area or stand number that the bookmark is meant to reference). The pencil icon shown next to the newly added bookmark can be used to edit the bookmark while the cross can be used to delete the bookmark. To zoom to the extent of the bookmark, simply click on the bookmark name.

MEASUREMENT

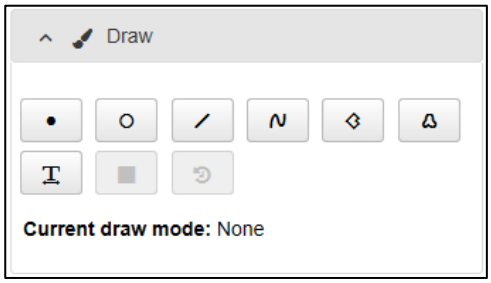


The "Measurement" option, shown above, is used to obtain various measurement and coordinate information about specific properties or layers on the map.

As shown on the left, when expanded, the measurement tool gives the user four different measurement functions to choose from which are discussed in the table below.

	The first icon, "**Area**", is used to calculate the area of a specific polygon. Click on the icon, shown on the left, and click on points around the polygon (e.g. the four corners of a square building). Double-click to stop. The area within the polygon is then and displayed in the Measurement tab under "Measurement Result" (shown above) in square meters.
	The second icon, "**Distance**", is used to calculate the distance between various points. Click on the icon, shown on the left, and click on different points on the map. Double-click to stop. The total distance along all line segments created is calculated and displayed in the Measurement tab under "Measurement Result" (shown above) in meters.
	The third icon, "**Location**", is used to determine the location of a specific point on the map by calculating its coordinates. Click on the icon, shown on the left, and click once on the map. The latitude/longitude values of that point are calculated and displayed as in the Measurement tab under "Measurement Result" (shown above) in decimal degrees.
	The fourth icon, "**Circle Area**", is used to calculate the area within a specific-sized circle. Click on the icon, shown on the left, and click once on a specific point on the map; dragging you mouse to widen or reduce the size of the circle. The area within the circle is then generated and displayed in the Measurement tab under "Measurement Result" (shown above) in square meters.

DRAW



The "Draw" option, shown above, is used to create drawings on the map. This is useful when the user wants to mark a specific property, make notations, or highlight a particular feature on the map.

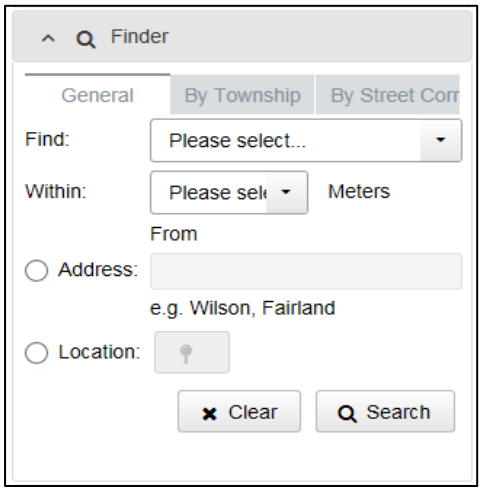
When expanded, as shown on the left, the Draw option displays several drawing tools that become available to the user, which are explained in the table below.

	"**Point**" allows the user to make points or dots on the map. Simply click on the Point icon, shown on the left, and click once on the map to create a new point. For each point that needs to be created, the user must click on the point icon before clicking on the map.

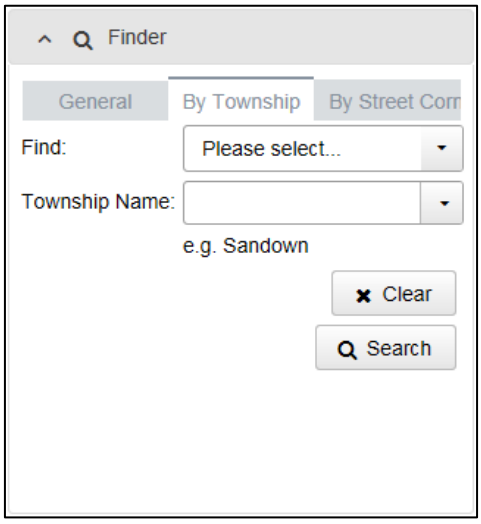
	"**Circle**" allows the user to draw circles or rings on the map. Simply click on the Circle icon, shown on the left, then click once on the map, drag your mouse to amend the size of the circle and let go of the mouse to create the circle. For each circle that needs to be created, the user must click on the circle icon before clicking on the map.
	"**Polyline**" allows the user to draw straight lines on the map (e. g. Around buildings). Simply click on the Polyline icon, shown on the left, and click once on a point on the map to start drawing a line. Move the mouse away from the point to extend the line. Continue clicking to add new line segments, and double-click to end the polyline drawing.
	"**Freehand Polyline**" allows the user to draw non-straight lines on the map (e. g. Around water features). Simply click on the Freehand Polyline icon, shown on the left, click once on a point on the map, drag your mouse over the area you want to draw lines on, and let go to finish.
	"**Polygon**" allows the user to draw straight-line polygons on the map. Simply click on the Polygon icon, shown on the left, click once on a point on the map to start drawing, move the mouse away from the point to create a line, continue clicking to add new line segments, and double-click to close the polygon.
	"**Freehand Polygon**" allows the user to draw freehand polygons on the map. Simply click on the Freehand Polygon icon, shown on the left, click once on a point on the map, drag your mouse over the area you want to draw lines on, and let go to finish.
	"**Add Text**" allows the user to add notes and comments to the map. Simply click on the Add Text icon, shown on the left and then click on the point on the map where you would like the text to appear. A "Draw Text" box will appear in which the user must type comments and then click "OK".
	"**Stop Drawing**" can be used to end a drawing that was started using any of the above-described tools. Simply click on the Stop Drawing icon, shown on the left, after drawing a shape to end it.
	"**Clear Drawing**" allows the user to remove all markings and notations previously made on the map. Simply click on the Clear Drawing icon, shown on the left, to remove drawings made.

FINDER

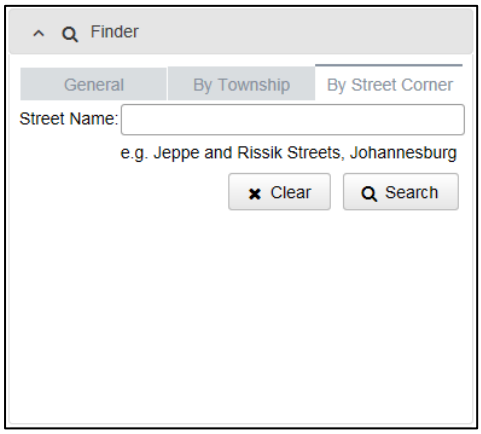
The Finder tool, shown above, is used to find points of interest using one of three finder options. To access this tool, click on the icon above. This will open up the Finder Tool Table, as shown on the left. The user can search on the either the "General", "By Township" or "By Street Corner" option.



To use this tool on the General tab, click on the "Find" drop-down list and choose an option. Enter a distance parameter, and the address from which to search (e.g. Loveday Street, Johannesburg) or pin the location of the property. Click Search. The Results Table will then appear showing a list of records that match your search criteria. The information can then be queried as with the other result tables discussed.



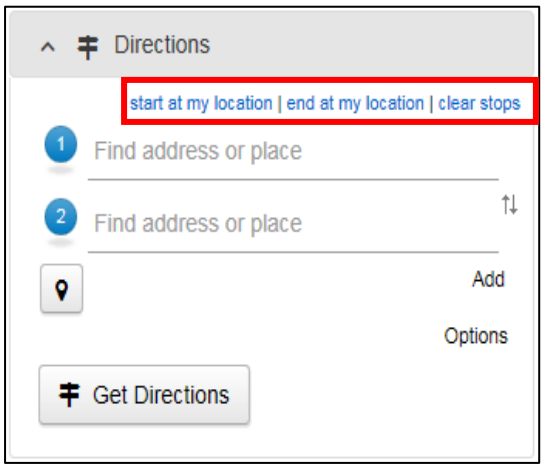
To use the By Township tab, as shown on the left, click on the "Find" drop-down list and choose an option. Enter the Township Name. Click Search.



To use the By Street Corner tab, enter the names of the two streets for which you would like to find the intersection (e.g. Bree and Rissik, Johannesburg). Click Search.

DIRECTIONS

The "Directions" option, shown above, is used to determine the driving route between any two given places.

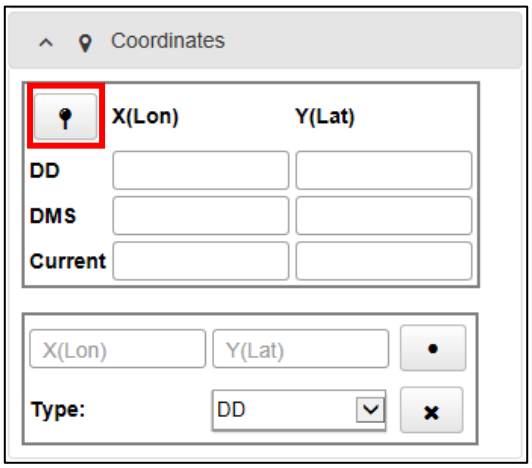


By clicking on the icon above, the user opens up the directions table, shown on the left. The user can then enter the addresses of two locations between which directions will be calculated. Click on "Get Directions" to generate direction instructions from point 1 to point 2. The user can also create a third location by clicking on the "Add" option and then entering another address to include in the directions.

The options shown in the red box on the left can be used to auto-populate the address fields with the user's location as either the start or end address, as well as to clear the stops previously entered.

COORDINATES

The Co-ordinates Tool, shown above, allows the user to plot and display map coordinates.



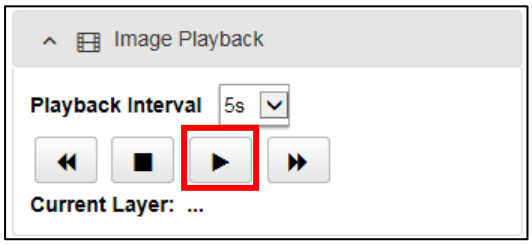
By clicking on this icon, the user opens up the Co-ordinates table, as shown on the left.

The user has the option to generate co-ordinate values in Decimal Degrees (DD), Degrees Minutes Seconds (DMS), or those of the current projection being used for any point on the map. Tis can be done by clicking on the pin shown in the red box on the left and then clicking on a point on the map for which co-ordinates will be generated.

Users can also plot known co-ordinates by entering the longitude/latitude values in the spaces provided on the left and thereafter clicking on the dot icon to plot the point. The "Type" option allows you to change the format between DD, DMS, and current projection.

IMAGE PLAYBACK

The Image Playback tool, shown above, is used to display all of the imagery of different vintages available in a single slide show.



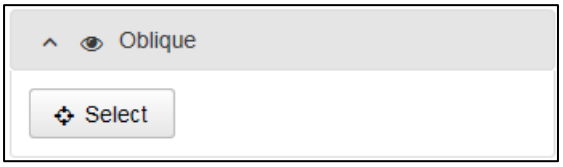
By clicking on the icon above, the Image Playback option, shown on the left, opens up.

To begin the slide show, click on the play button shown in the red box on the left. The "Playback Interval" refers to the time lapse between each vintage of imagery and can be changed by clicking on the arrow next to "5s".

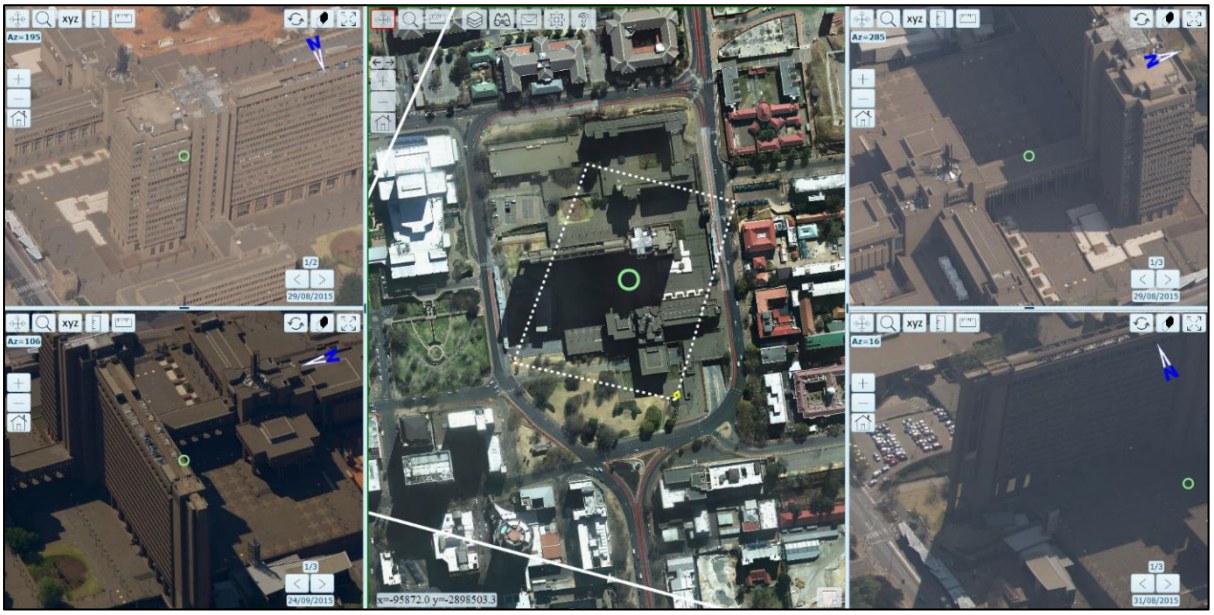
SCALE

The Scale bar tool, shown above, is used to zoom to an area at a specified map scale. The user clicks on this icon and enters the scale value into the space provided. By clicking enter on the keyboard the map will zoom to the extent of the entered map scale.

OBLIQUE IMAGERY



The oblique imagery tool, shown above, gives the user access to the new oblique imagery that is made available for any point on the map. By clicking on this icon, the Oblique Imagery Toolbar, as shown on the left, will open up. Click on the “Select” icon and then click on any one point on the map for which oblique imagery would like to be viewed. When the user clicks on a point on the map, a new tab will open up in the browser.



This new tab will load and display the oblique imagery for the given point, as well as all the tools necessary for navigating through and using the oblique imagery, as shown in the example above. The selected point will be shown in aerial view as well as four different side views. Each view is linked to the next so any changes to one view will cause subsequent changes to the other views so as to orientate the user better.

Tools for the oblique imagery include (but are not limited to) the Pan, Search, Zoom to Full Extent, Select Layers, Share or Email, Settings, About, Zoom, Measure, Sync, Clear, and Switch Oblique Modes options.

The oblique imagery viewer can also be accessed at the following link:
https://oblique.joburg.org.za/publication/Oblique%202019

*A comprehensive Help Manual for the Oblique Imagery can also be found on eServices.

PLEASE FEEL FREE TO CONTACT THE CORPORATE GEO-INFORMATICS (CGIS) OFFICES, SHOULD YOU HAVE ANY QUERIES, COMMENTS, FEEDBACK OR COMPLAINTS AT:

011 407 6159 OR IMS@joburg.org.za

CGIS PROVIDES FREE TRAINING FOR THE ONLINE MAPS VIEWER WEBSITE.

TRAINING IS DONE VIA MS TEAMS AND OTHER ONLINE PLATFORMS.

BOOKINGS ARE ESSENTIAL.

TO BOOK, CONTACT ROXANNE PARTHAB: 011 407 6159 or roxannep@joburg.org.za

TO ACCESS THE MOBILE MAP VIEWER, GO TO: https://ags.joburg.org.za/cgismobi/