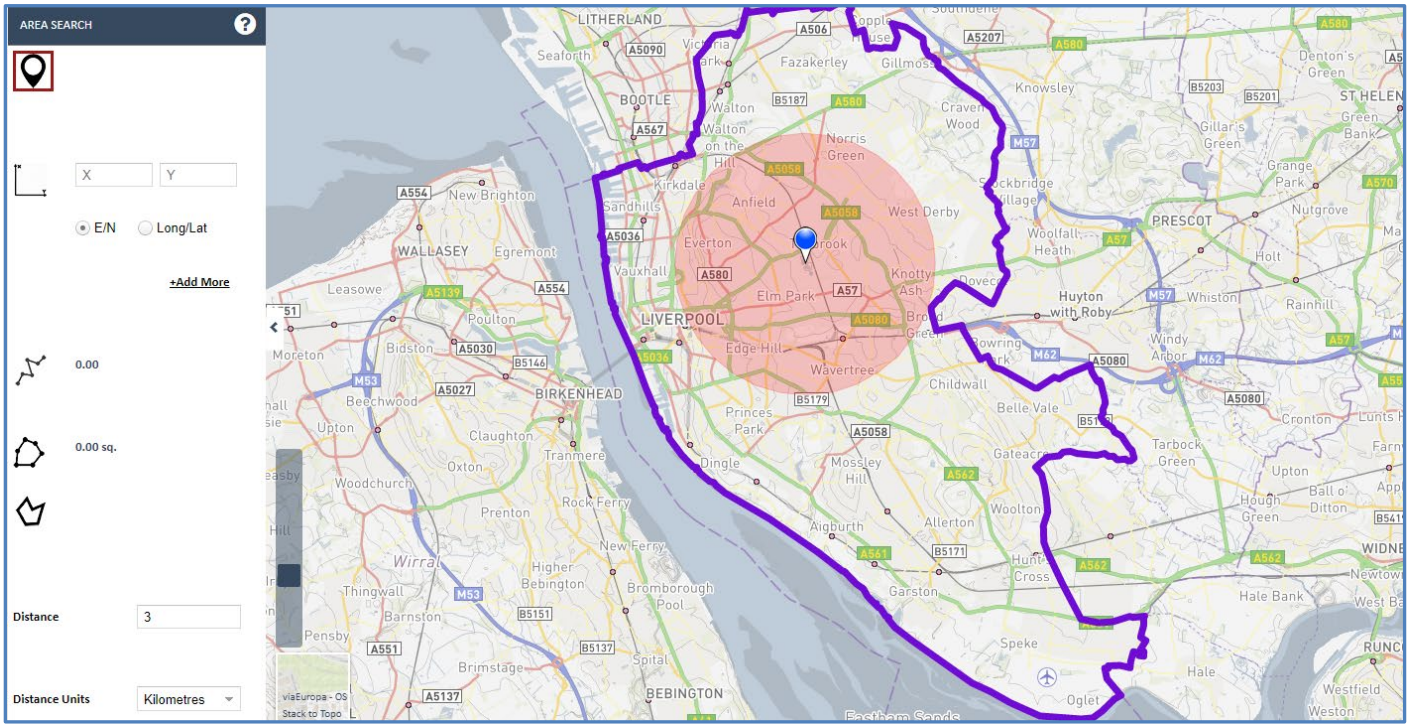
MapThat – Creating a Public Facing WebMap

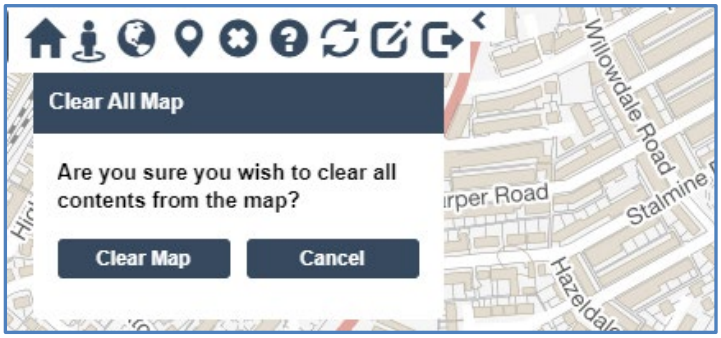
by David Crowther

DynamicMAPS
MapThat

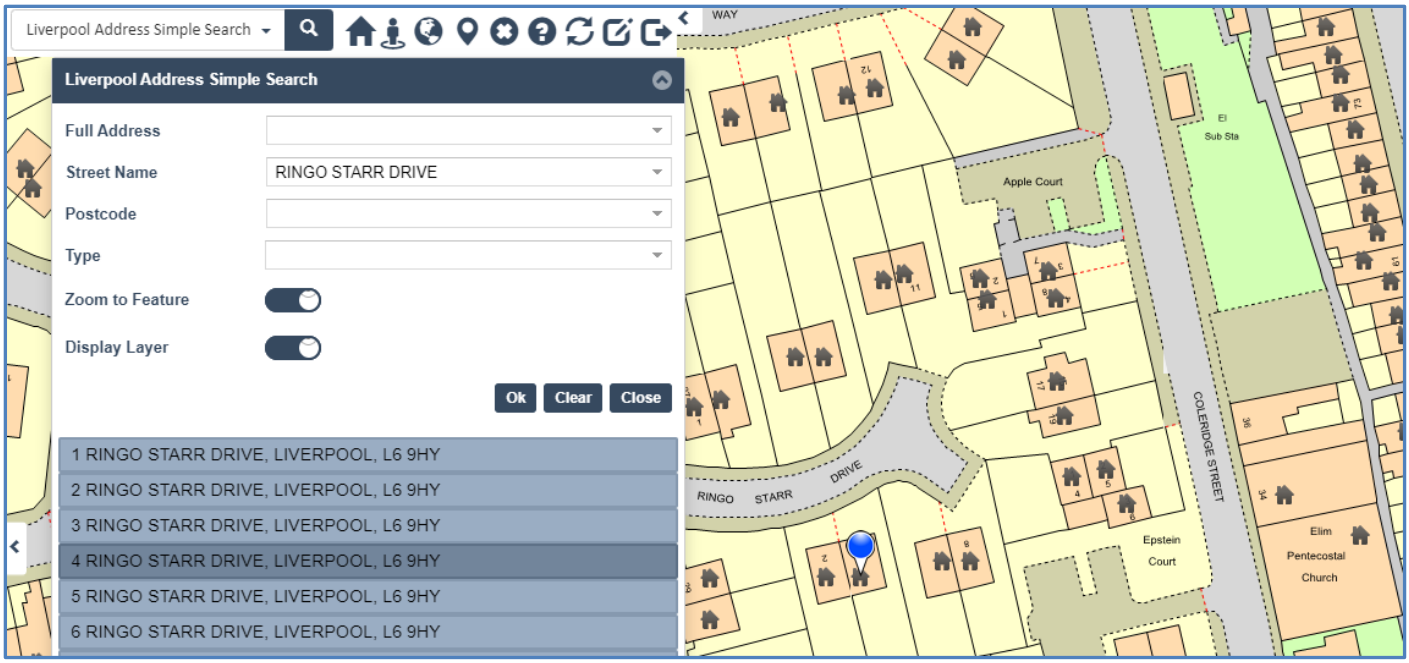
Cadline's DynamicMaps webGIS – **MapThat** – has always tried to be as **user friendly** as possible. We have avoided using complex Geospatial terms e.g. replacing the term **creating Buffers** with running **Area Searches**:



Implementing tools with as **few user clicks** as possible, and at times replacing old tools that have become overly complex with more **simplified** versions, such as our **Clear All Map** tool:

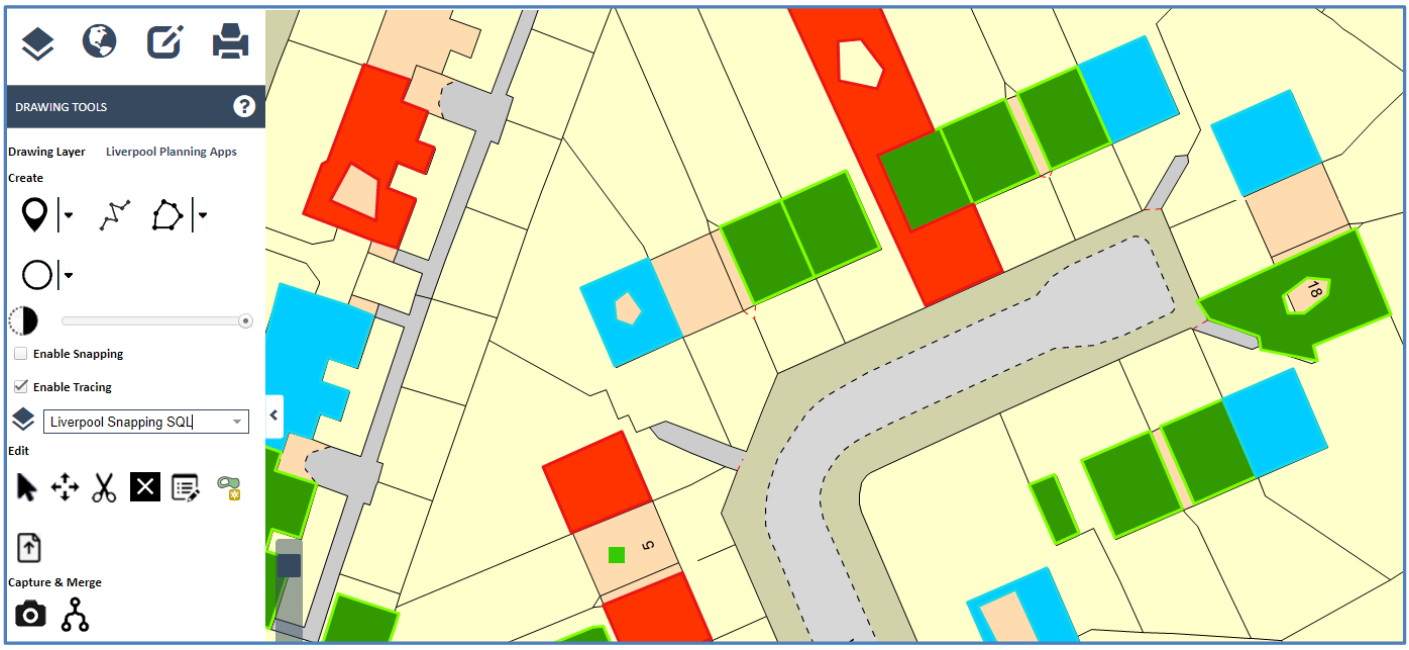


And the new **Simple Search** tool, where the results are now shown below the Search Panel:

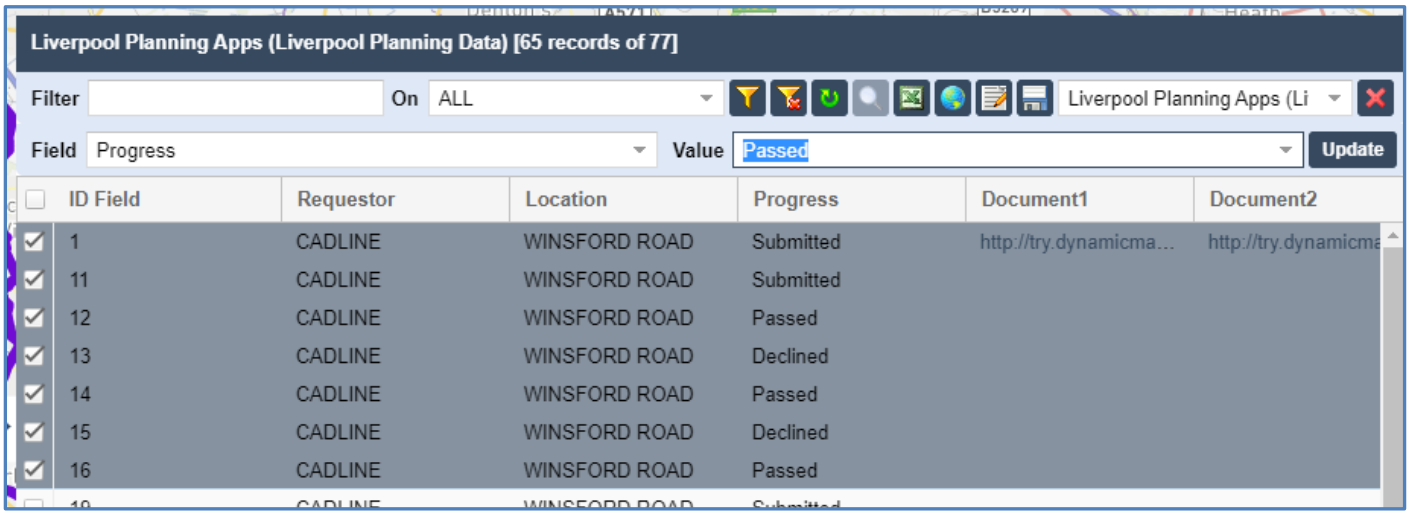


However, while we have strived to ensure MapThat is as simple to use as possible, we are just as proud to know that our webGIS has some of the **highest level of GIS** functionality available to any comparable product.

MapThat has **desktop GIS** level **Editing Tools**, including a suite of drawing options that include, Snapping, Tracing, Merging, Capturing and adding Rings:



As well as options for editing **Attributes** via the Data Table, allowing users to make individual edits, and **auto updating** values in columns for selected records.



In fact, MapThat has a complete set of **desktop comparable Geospatial Tools** that can be published (Role Dependent) including:

- Routing – P2P and Travel Time Isochrones
- Measure Tools
- Map Links to Google Maps
- Temporal Analysis Tool
- Importing – Excel and GIS files
- Exporting – Excel and GIS files
- Red Lining
- Con 29 and Land Charge generation
- True Scale Printing
- SQL Querying

We see the **high level of functionality** within MapThat as a benefit for all our clients. They can choose to configure Role Dependent Tools, which enable them to expose as much or as little functionality as they wish for specific users – and with this, the options are endless.

We have also seen how MapThat can then be used for some of our clients to replace complex (and sometimes expensive) desktop GIS software. If a team you manage simply need to print **Scale Plots** – well MapThat is for you!... if your Land Charges team need to **digitise complex planning applications**, snapping to an Ordnance Survey basemap – well MapThat is for you!

However – there is always room for improvement. While MapThat provides a perfect internal webGIS and in some cases even a replacement for desktop GIS packages, we have acknowledged that we can improve how MapThat looks and feels when used as a truly **public facing WebMap**.

So, recently we have spent a lot of development time enhancing how you can configure your MapThat Projects for Public Mapping purposes. In these cases, we do not need the high-end geospatial drawing, analysis and routing tools. Instead, we need to deliver as **simplified** a mapping interface as possible… maybe just presenting the map itself, with no decorations, no tools, no searches, no layer options – **just a basemap and the layer you wish to show!**

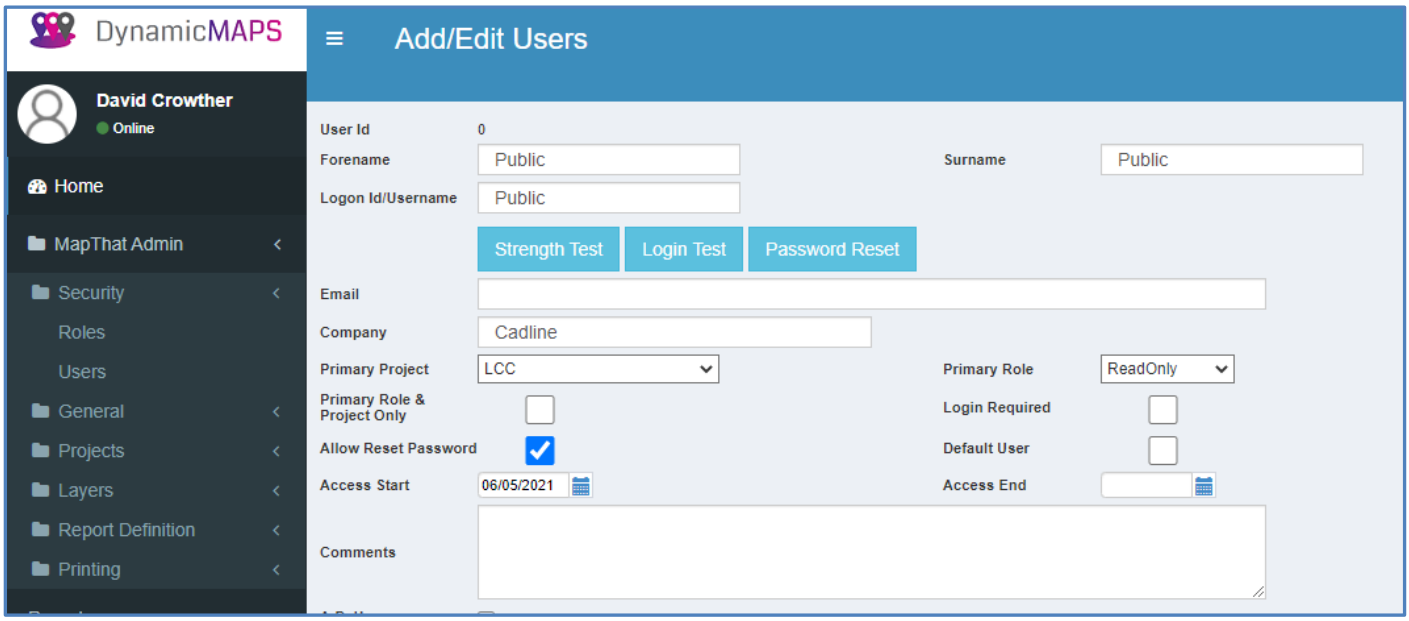
… so, let's get this Blog started and go through some existing and some **new configuration** options available to you, so that you can also generate **Public Facing WebMaps** in as simplified a format as possible.

Tip - There are no hard and fast rules to creating your own Public Facing WebMaps, but I have broken the steps that I took into the following sections. As always, the best place to start is with a User, Role and Project which ultimately will allow you to control **what, where and how things are shown.**

1 – Create a Public: User, Role, Project

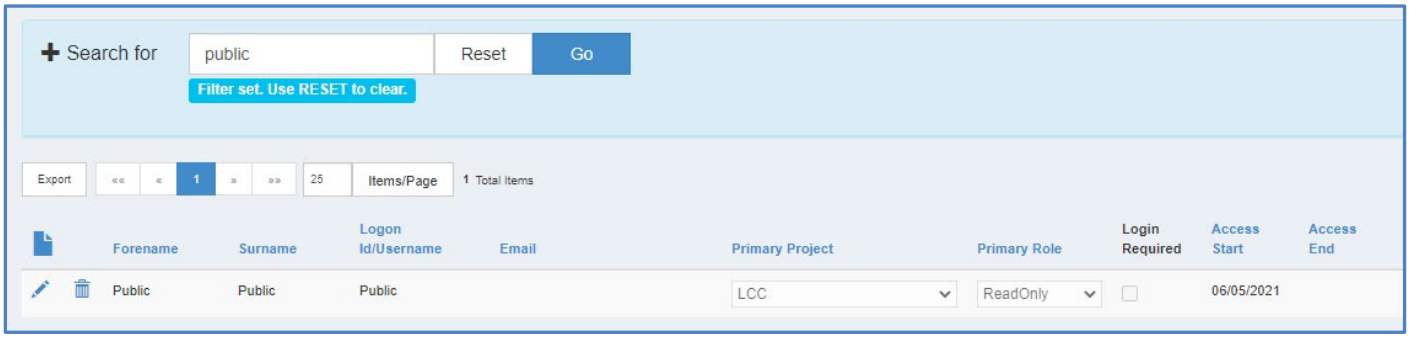
Let's start by creating a **PUBLIC User.**

Using the **MapThat Admin Forms**, you can choose to create a **New** or **Edit** an Existing User to be used for these Public Maps.



We may need to revisit some of the above settings for this Public User once the new Role and Project have also been created.

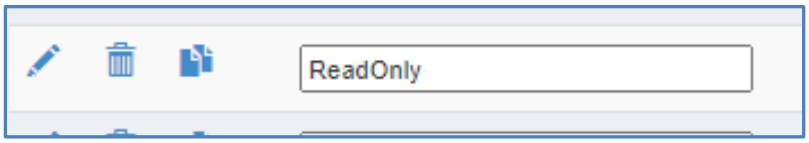
Now that we have created the new **Public User** -



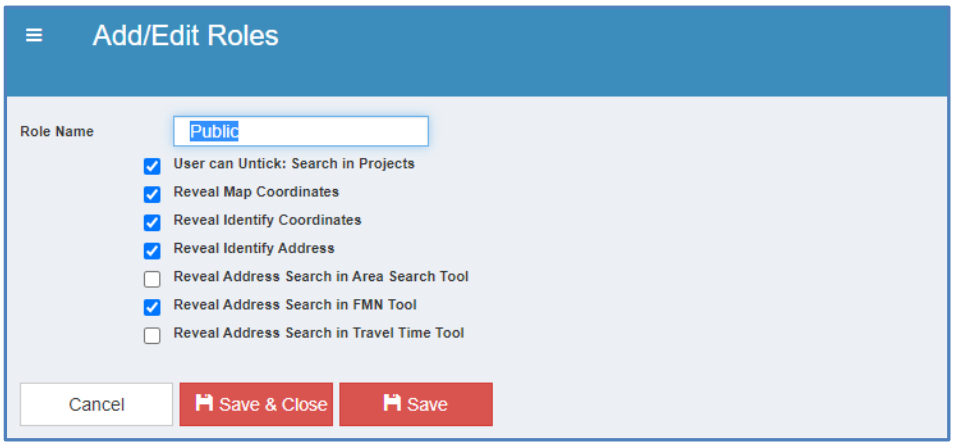
We can now create the new **PUBLIC Role.**

Again, using the MapThat Admin Forms, you can choose to create a **New** or **Edit** an Existing Role to be used for these Public Maps. I would suggest **CLONING** an existing Role is always the best option, as it will take less time to then refine the new Role.

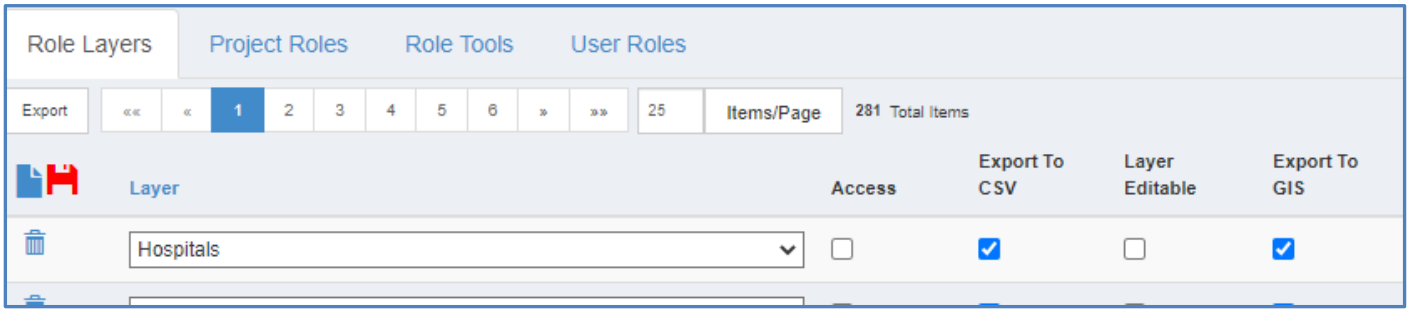
I already had a read only role, so I am cloning this one.



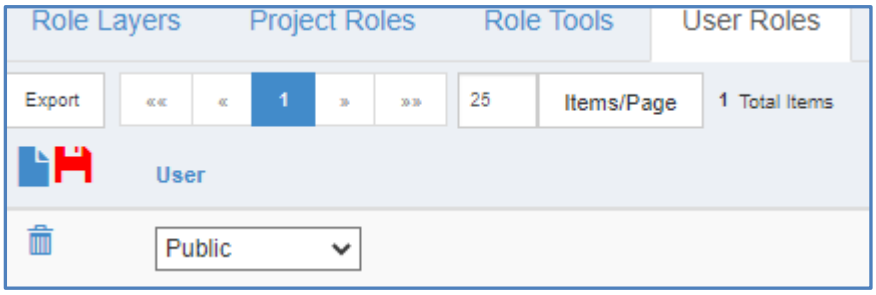
And then naming the new cloned Role to be **Public.**



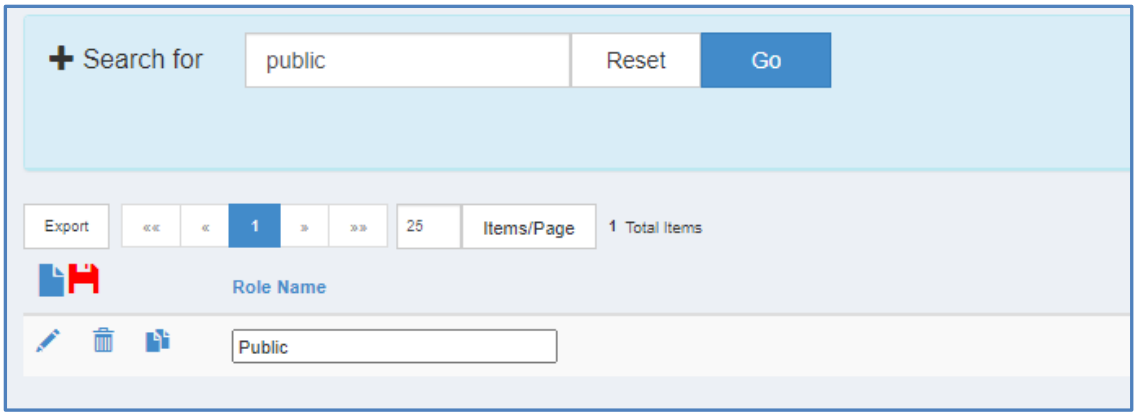
As needed, we can then use the **Tabs** at the bottom of the **Edit Roles** page to choose which Layers, Projects, Tools and Users are associated to this Role.



Again, we will need to revisit the **Project Roles tab** once we have created the new **Public Project**, but for now, I will use the User Roles Tab to associate my new **User (Public)** to this new **Role (Public).**



Now that we have created the new **Public Role** -

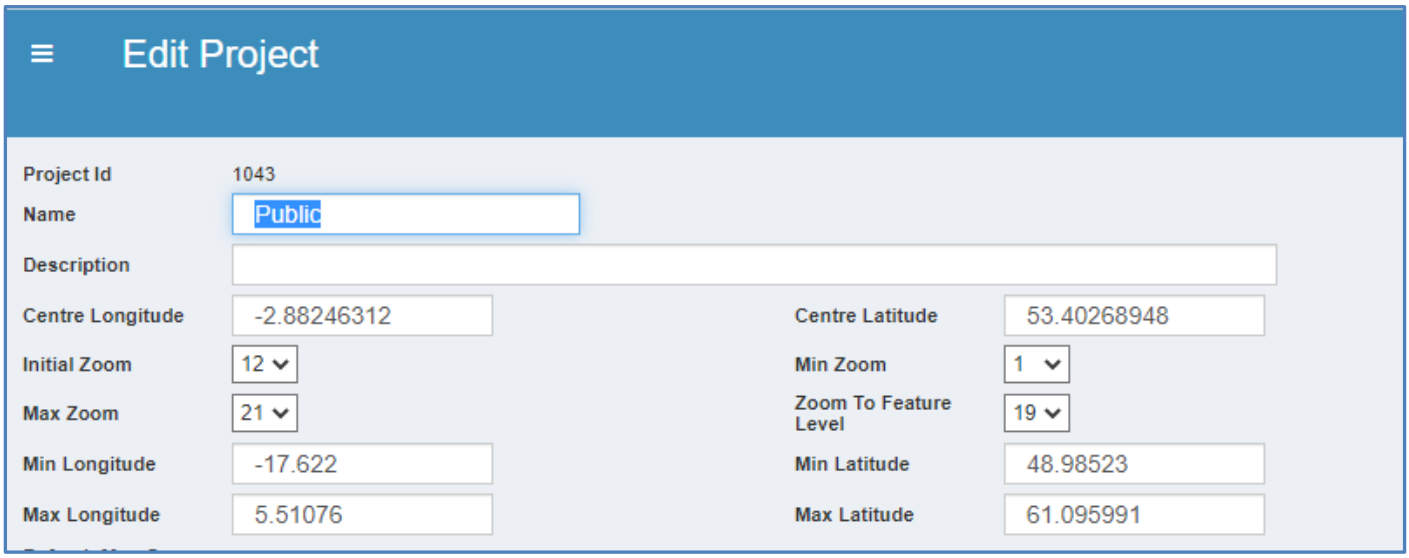


We can now create the new **PUBLIC Project.**

Using the MapThat Admin Forms, you can choose to create a **New** or **Edit** an Existing Project to be used for your Public Maps. I would suggest **CLONING** an existing Project that best matches how you wish your Public Project to look e.g. one that covers the same geographic area.

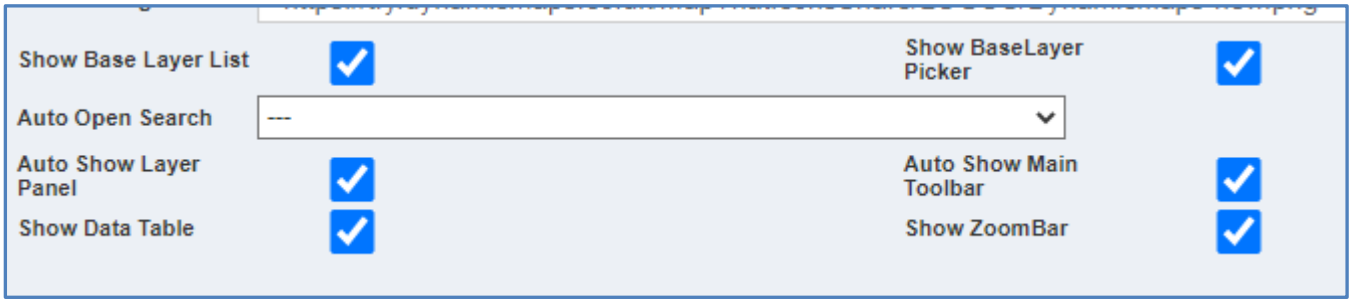
My new Public WebMap will be based on the area of Liverpool, so I am cloning my current LCC Project.

Once it has been cloned, we can then edit this new Project and name it as required - **Public.**



Because we cloned an existing Project, we can see that many of the Project related settings have already been chosen for us e.g. the **Centre Map Coordinates** and **Zoom Levels** – which saves us a lot of configuration time.

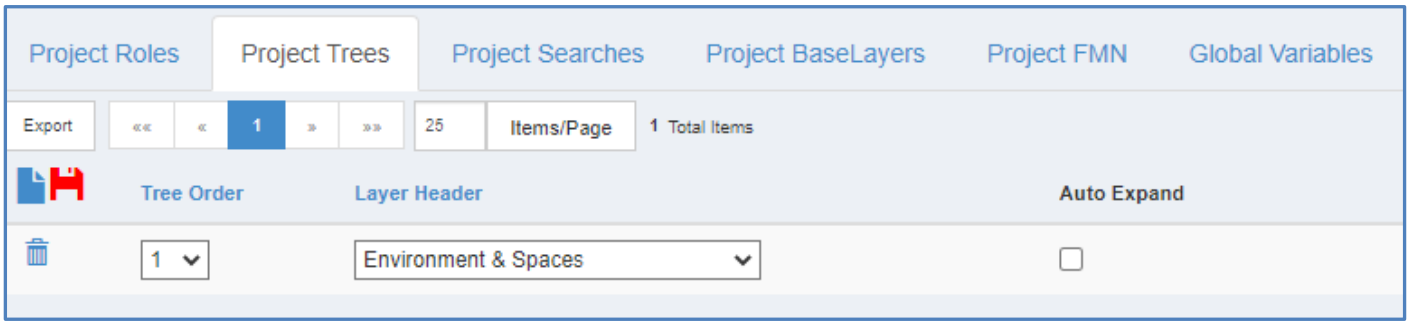
There will be a lot of Project Settings that we will use later to start to thin the Project/Mapping interface. For example, there are tick box options to define if you wish to show certain map elements e.g. the **Baselayer Picker**, the **Data Table,** the **Zoom Bar** etc.…



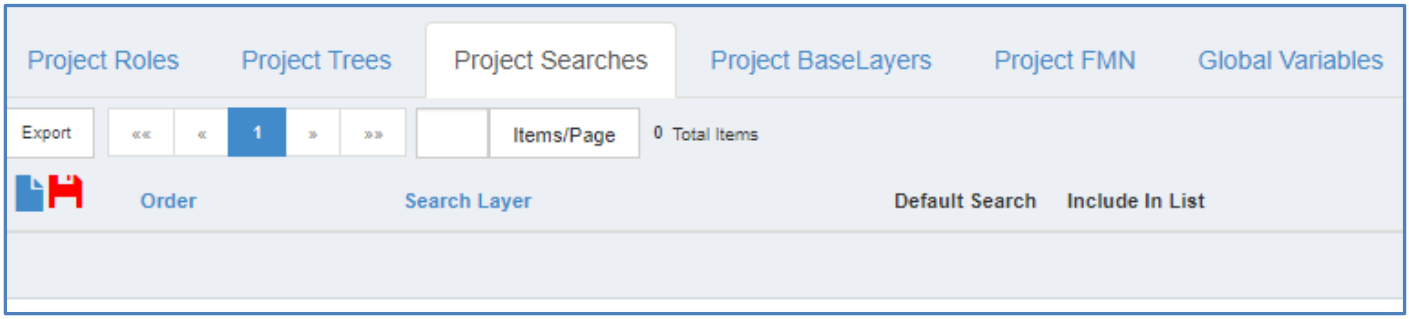
… but for the moment, we will use the Tabs at the bottom of the Edit Projects page to choose which Roles, Trees, Searches, BaseLayers etc. are associated to this new Project.

Here you should disassociate **Roles, Trees, Searches** and **Baselayers** as needed.

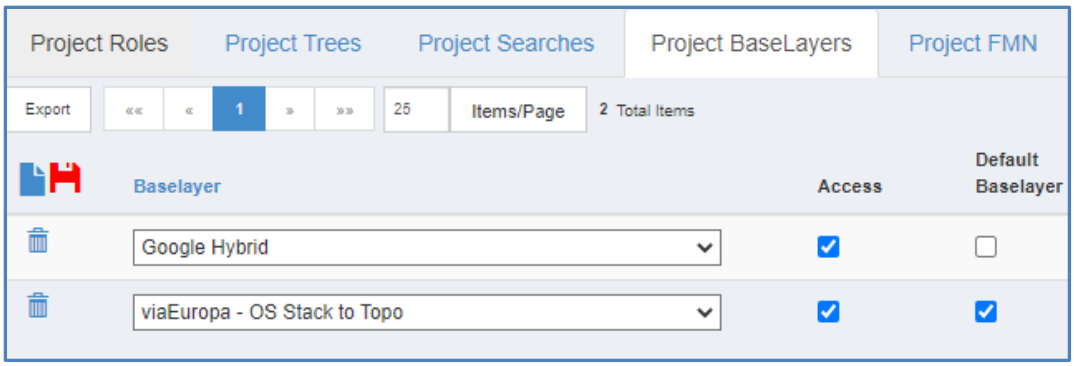
For example, we only need the layers from the **Environment & Open Spaces** Tree -



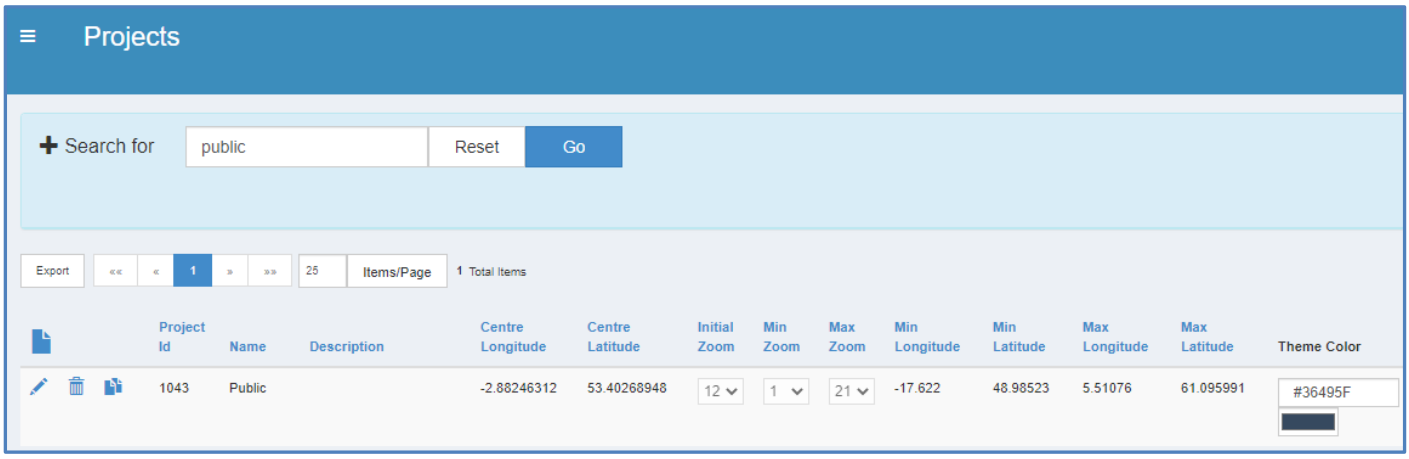
We will not need any **Searches** in the Public project –



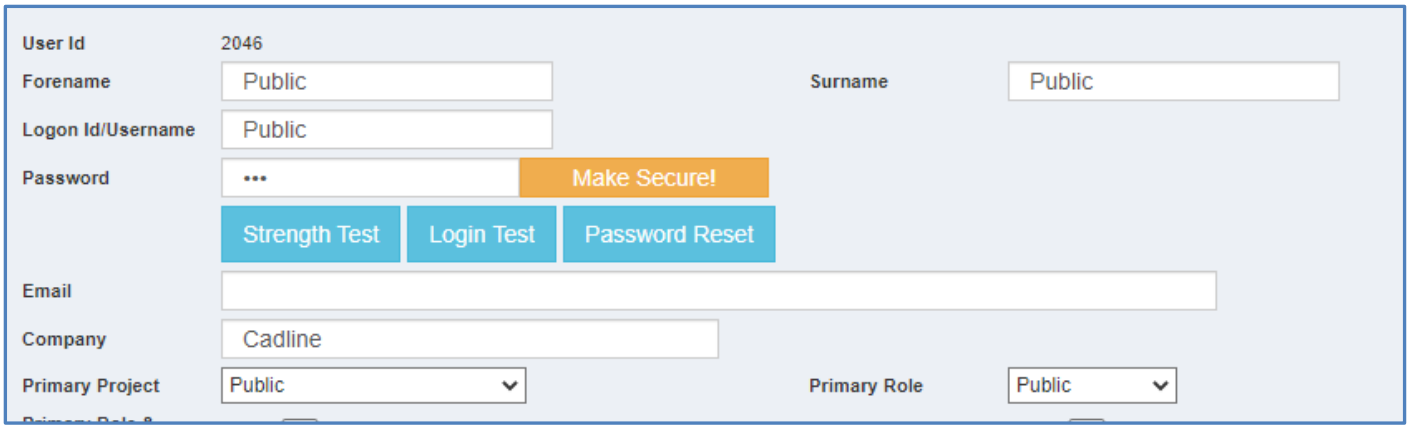
And we only want 1 or 2 **Basemaps** –



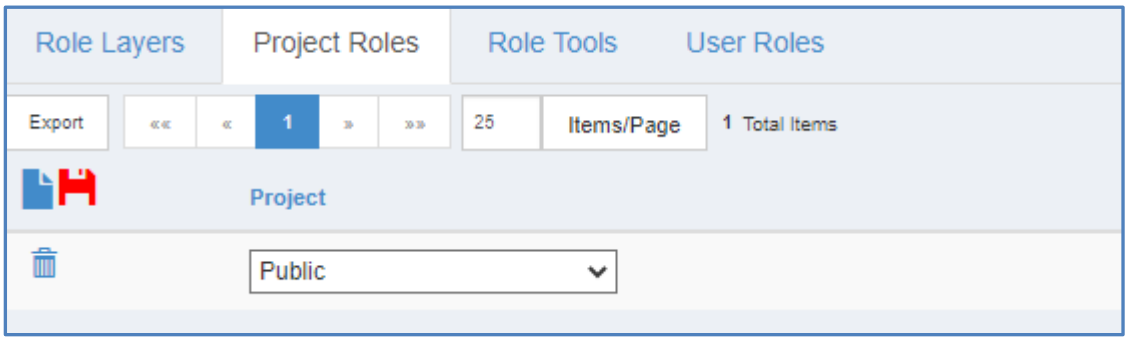
The new **Public Project** has now been created –



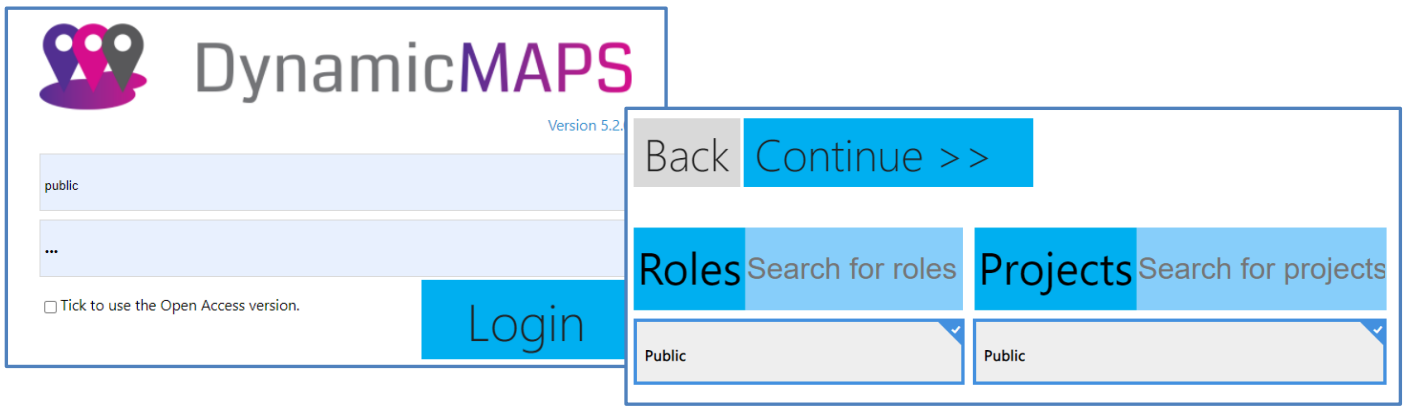
We can now re-edit the **User (Public)** to configure their settings so that their **Primary Role** and **Project** are the new **Public** ones.

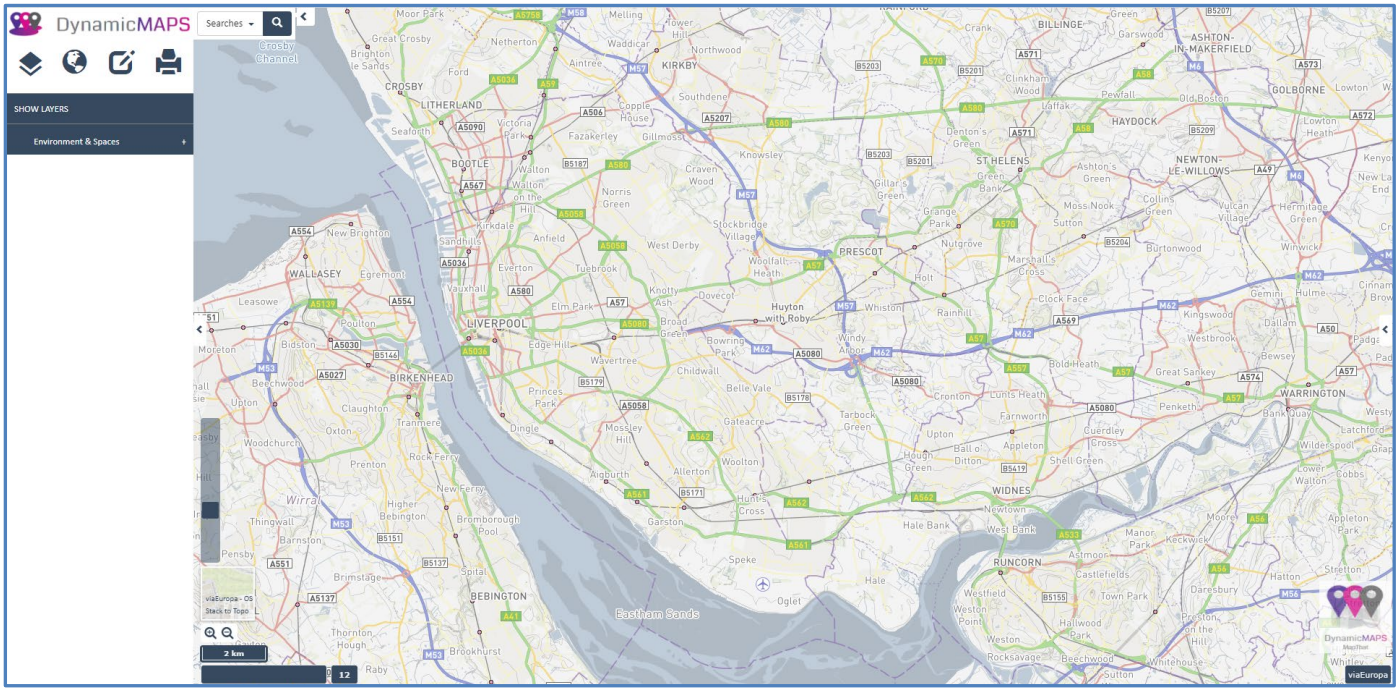


And check in the **Public Role,** to ensure the only **Project** available is the new **Public** one.



Let us now test logging into MapThat as the **Public User,** checking that the new **Public Project** loads as expected.



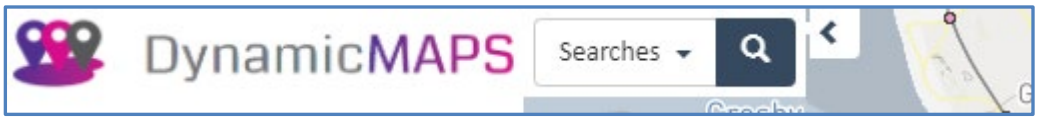


Great!

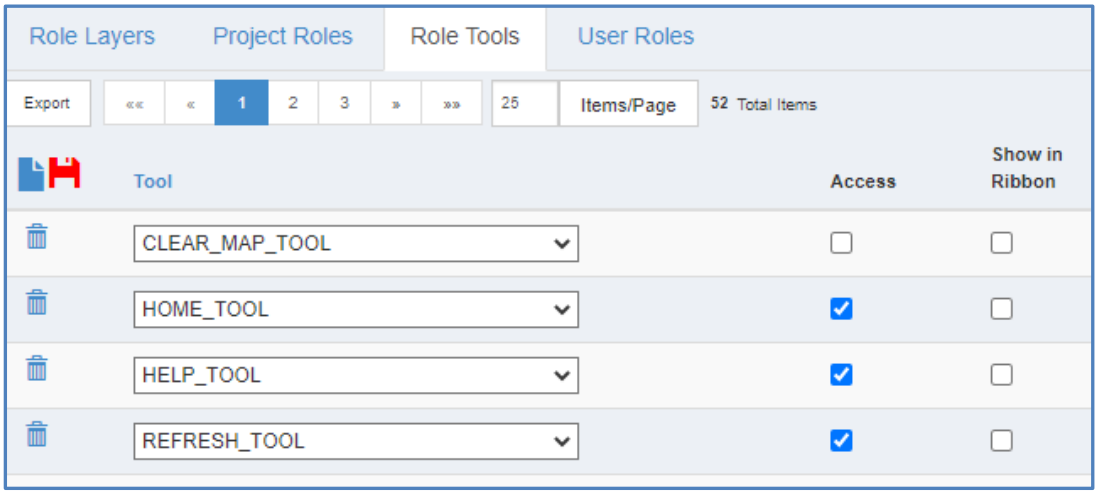
We now have a working **Public User, Role** and **Project** which we will now start to configure further by removing Tools, Layers and Map Decorations to ultimately end up with our completed **Public Web Map**.

2 – Remove Tools and Searches from Ribbon Bar

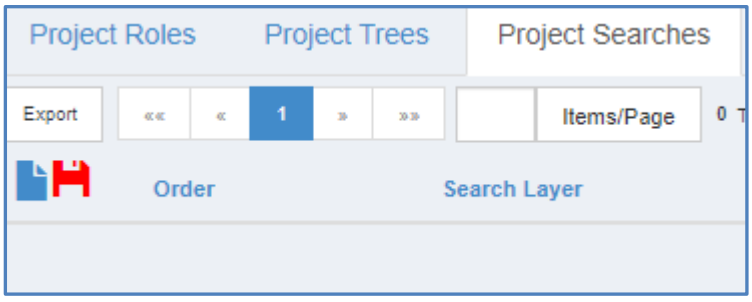
The first area to configure is the **Main Ribbon Toolbar** shown to the right of the Map Header in the top left corner.



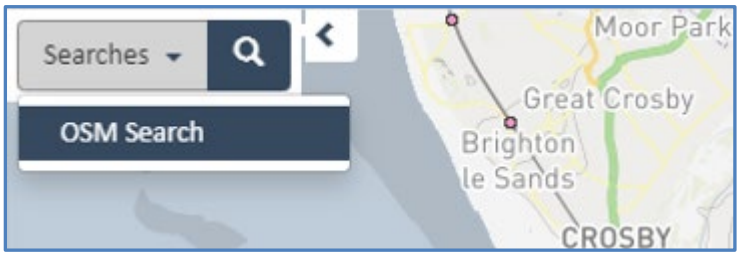
Most of the work has been done here because there are no Tools shown on the Ribbon. This is because in the **Role** settings, we can choose to either **disassociate** all Tools from the Role (untick Access or Delete), or alternately (which we have done) untick the **Show in Ribbon** for those tools.



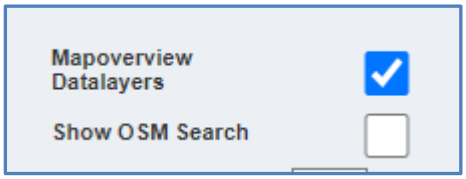
Next, lets remove the **Searches Panel**. If we check the Project – **Project Searches** Tab, we can see that there are no Searches associated to our Project –



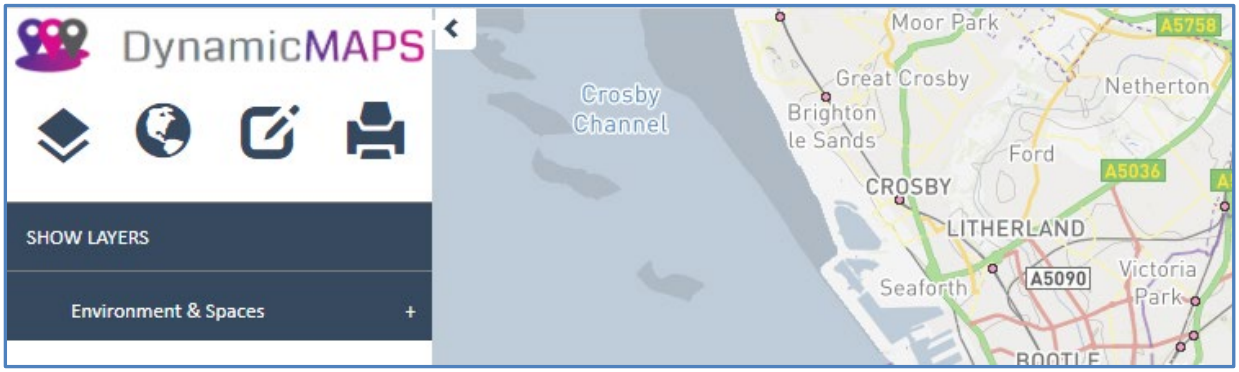
so why is the Search panel showing? Well, within MapThat, if you check in the Search List, it may show that there is an **OpenStreetMap (OSM) Search.**



This is controlled via the main Projects Edit page, where there is a tick box to choose not to show the **OSM Search.** We will **untick** this box, save the changes and check the Project again.



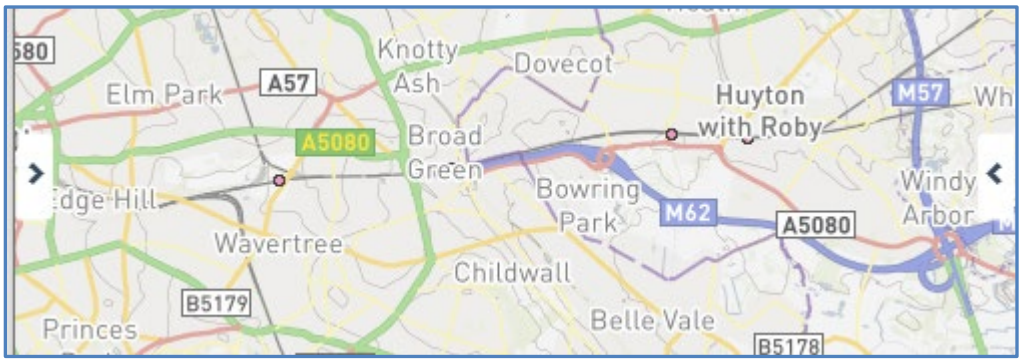
Having saved the Project and logged back in, the **Search Panel** has now been removed, because there are **no Searches** available for this project – we do not show the panel anymore.



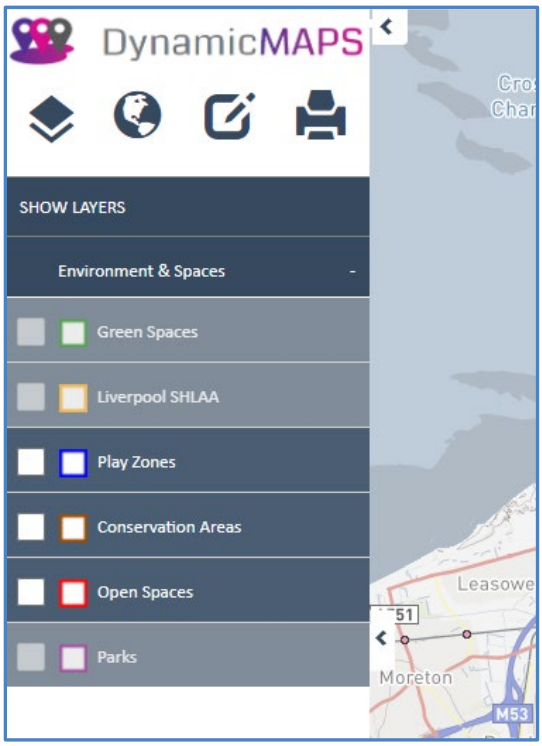
That is the **Main Ribbon Toolbar** and **Searches Panel** thinned out, so let's move onto the Layers Panel and Data Table Panel.

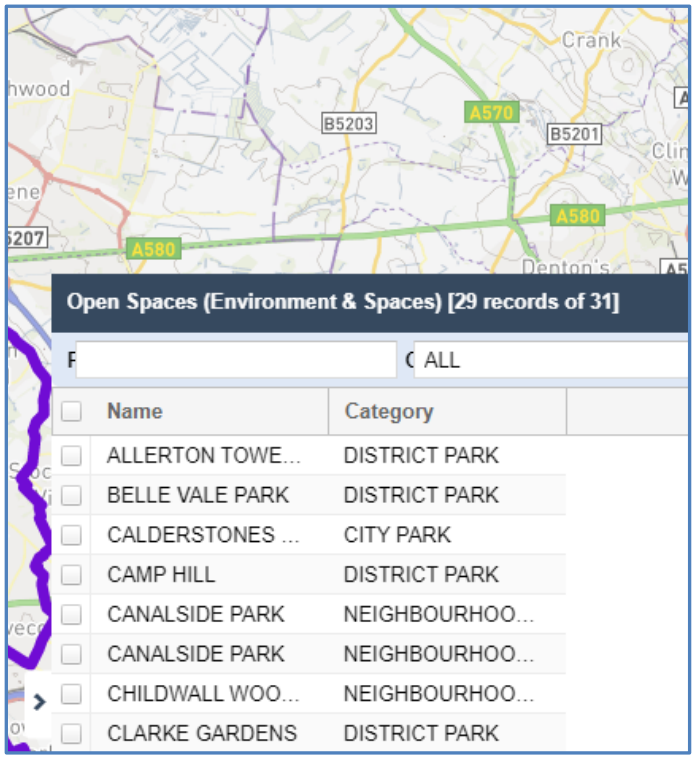
3 – Hide the Layers and Data Table Panel

The MapThat interface has two main Panels that open via an **Arrow** from the **left** and from the **right** of the map.



The left Arrow opens the **Show Layers, Map, Edit, Print Tools Panel**. The right Arrow opens the **Data Table**, showing the records and attributes for any layers loaded into the map.



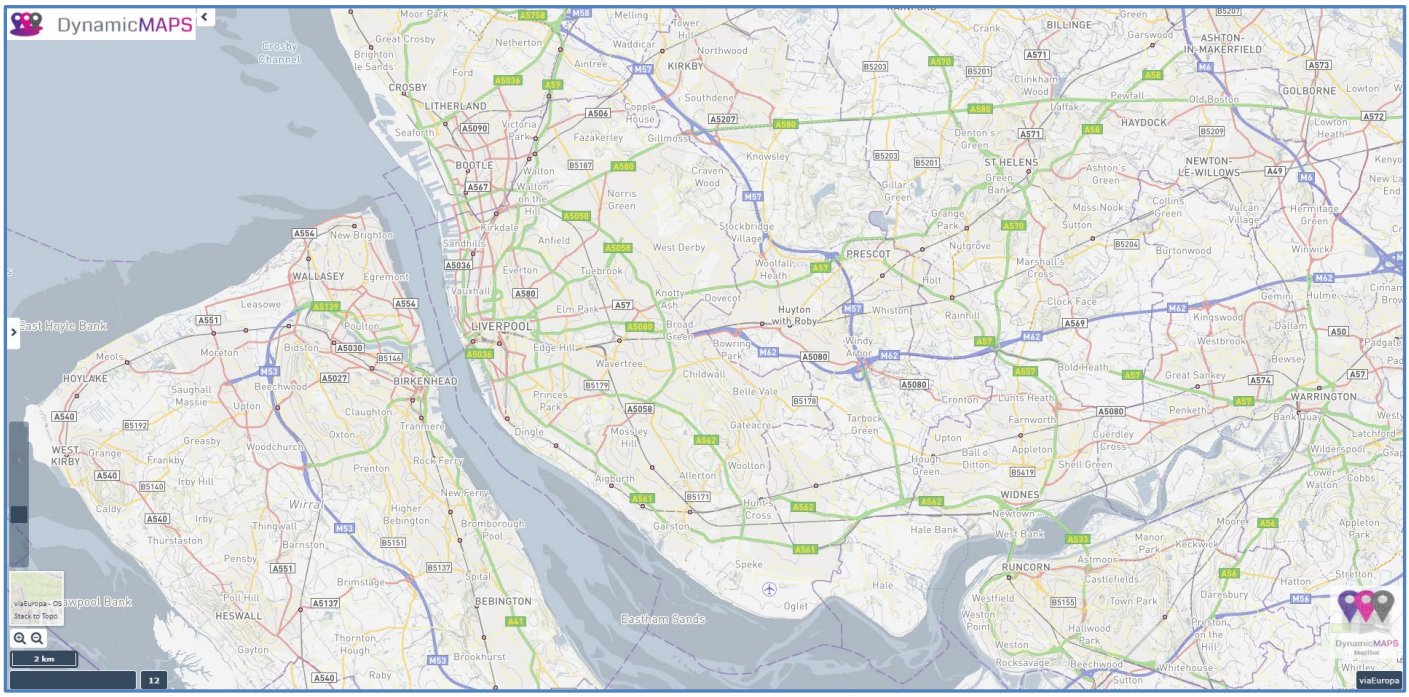


In our Public facing WebMap we are going to choose:

- To **not show** the Data Table Arrow
- To **hide** the left Layers Panel

Both are Project settings, which you can choose to **untick**:

Once we save those changes to the Project it will mean that the **user cannot open** the panels, thus simplifying the interface.

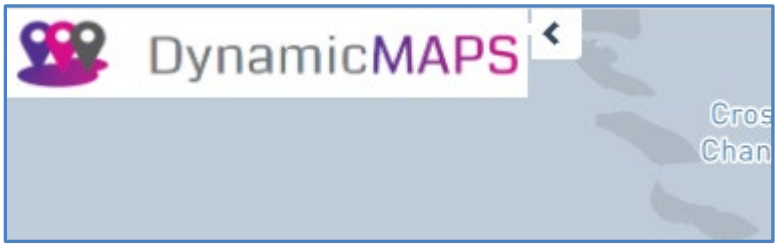


We now have a MapThat Project, where the mapping interface will not allow the users to view the Data Table (as this may be overly complicated for Public users) and the Layers panel is also hidden, thus making the map extents the focus of the webpage.

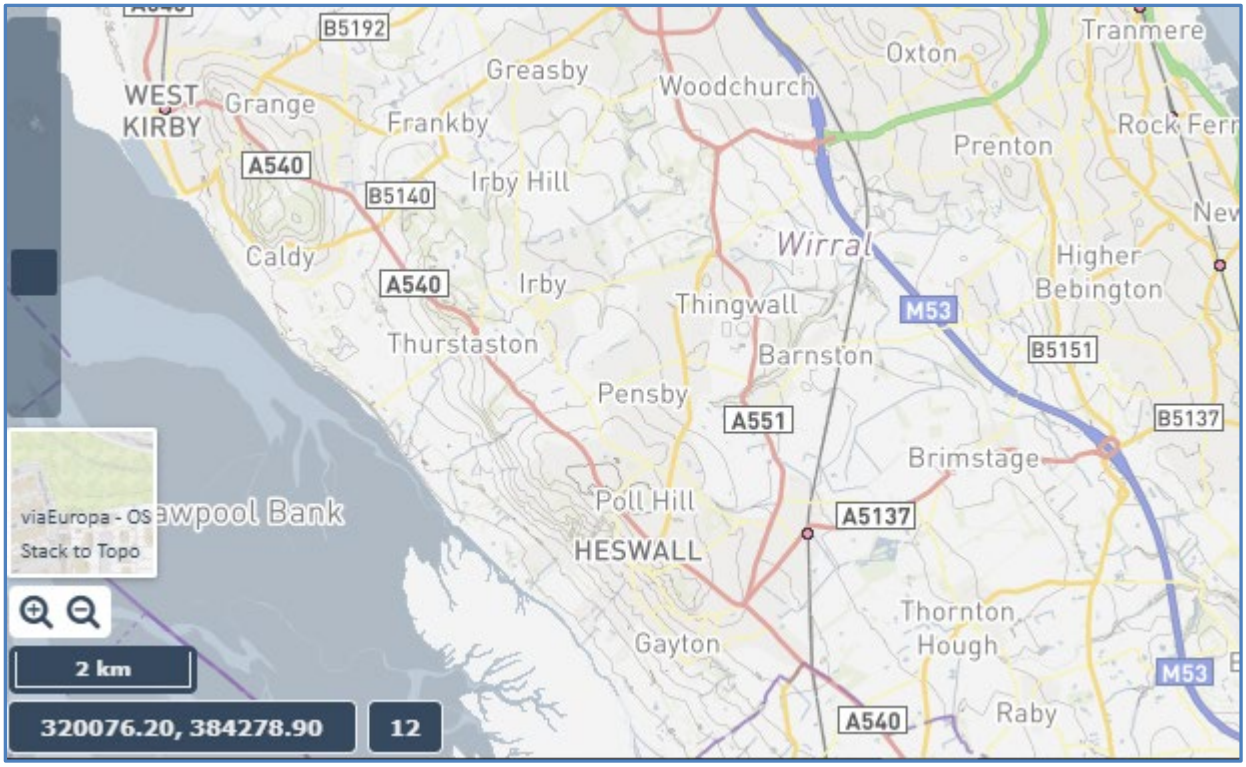
4 – De-Clutter the Map Interface

However, we still have several **Map Decorations** that are shown in the map and it would be good to hide these!

For example, in the **top left** we have the **Header Window** – which is used internally to provide a logo or name for a project.

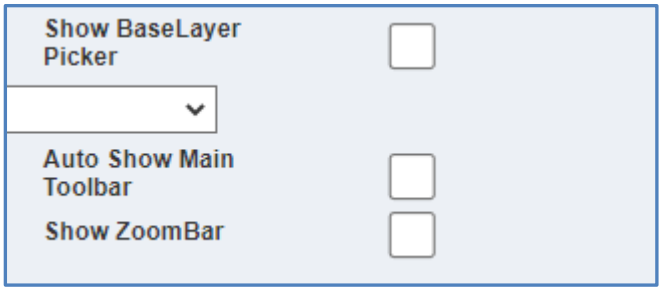


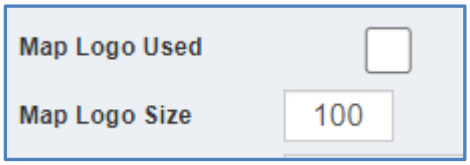
In the **bottom left** of the map we show several **Map Decorations**, including a ZoomBar, Basemap Picker, Zoom Buttons, Scale Bar, Coordinates and Zoom Level.



And then in the **bottom right** of the map we show a **Project Logo** and the **accreditation** for the chosen basemap.

Using the MapThat Admin Forms we can thin (remove) these decorations individually, leaving any that are important for your project or simply removing them all.



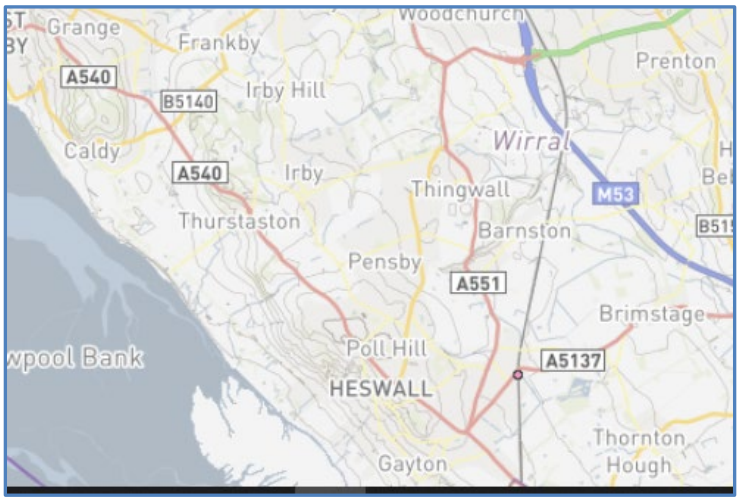


… and other options can also be **unticked,** to NOT show the:

- Zoom Buttons
- Zoom Slider
- Basemap Picker
- Zoom Level
- Scalebar
- Coordinates
- Basemap Accreditation

Once those options have been unticked, if you Save the Project, log out and login into the Public project the **map interface** is now further thinned/simplified.

The **bottom left** of the map – has no map decorations.



The **bottom right** of the map – has no basemap accreditation.

The **top left** of the map – has no Header Logo/Text.

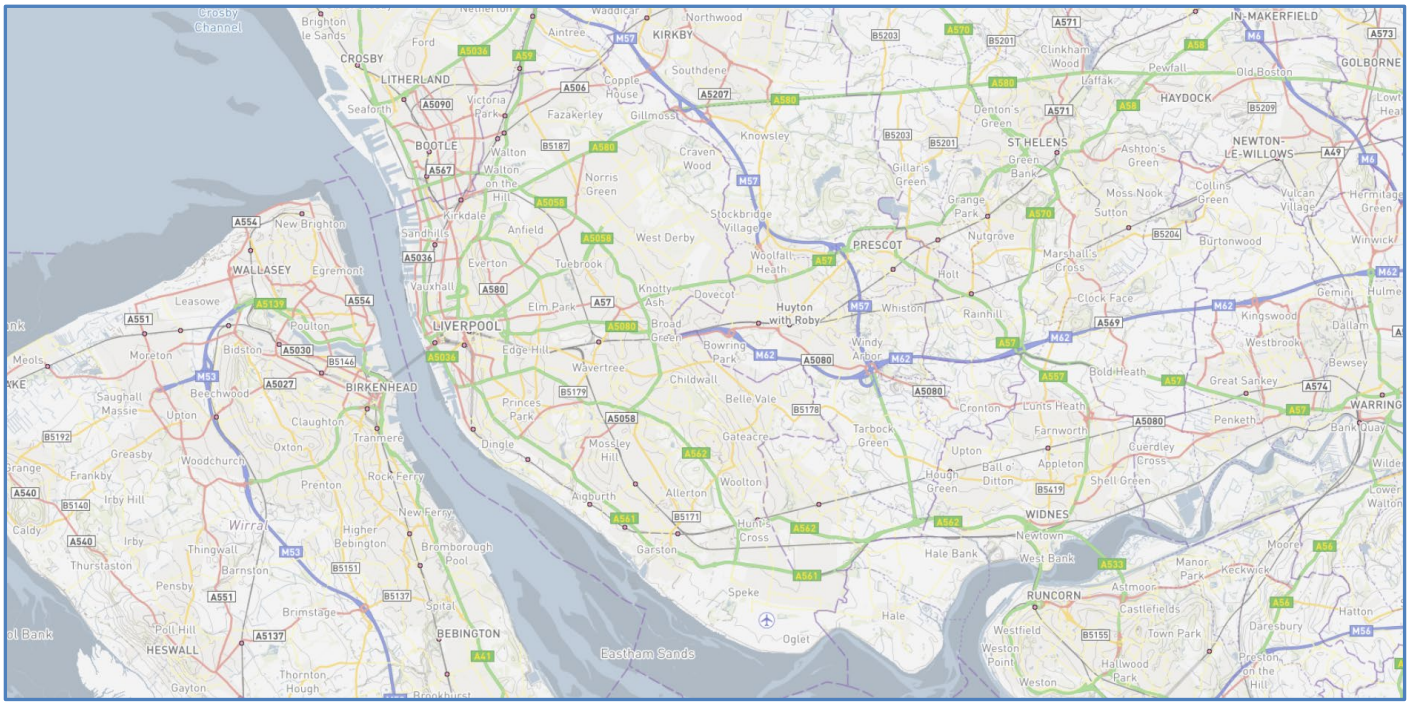
5 – Utilise Decorated URLs to Load Layers, Filter and Zoom to Records

Having now thinned/simplified this Public Project, we can start to use **Decorated URLs** to bypass the login screen and then to auto show layers, as well as zoom to specific features.

5.1. Login as Public User and open default (Public) Project:

This URL will bypass the login screen as it defines the User to be Public. Because the **Public User** only has one Project (Public) associated to it, the URL auto opens the **Public Project.**

https://try.dynamicmaps.co.uk/mapthat/Login.html?user=public

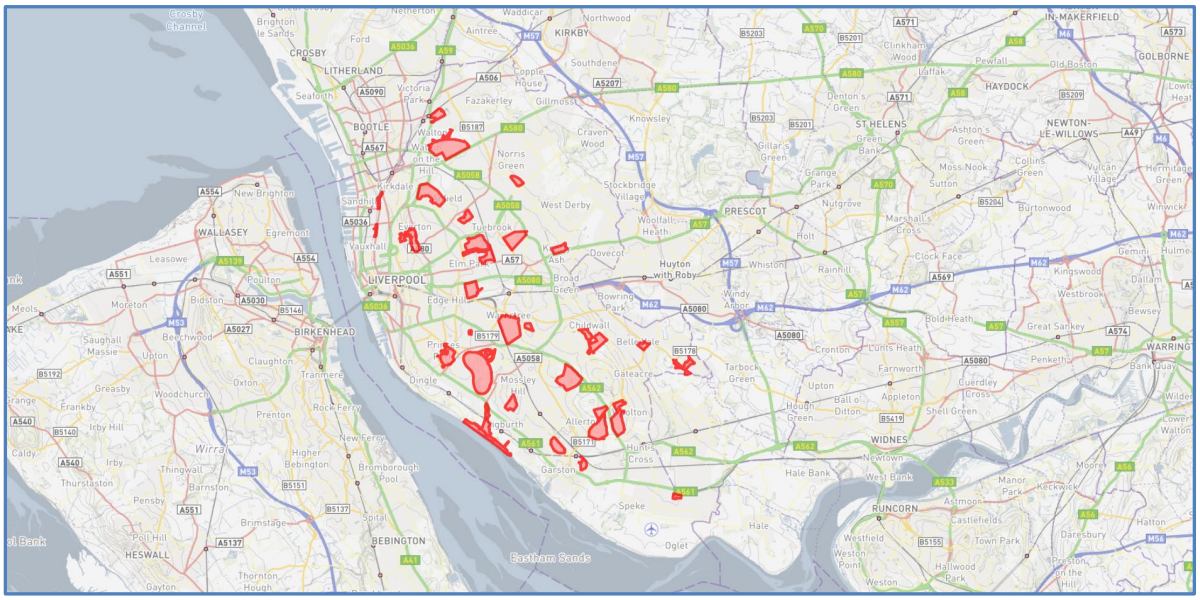


Note - *The URL does not need to specifically state the Project = Public, because our User (Public) is only associated to one Project (Public), so it auto opens that Project.*

5.2. Login as Public User and load the Open Spaces Layer:

This URL will bypass the login screen and open the Public MapThat Project using the **User – Public.** It will then show the **Open Spaces** Layer (9654).

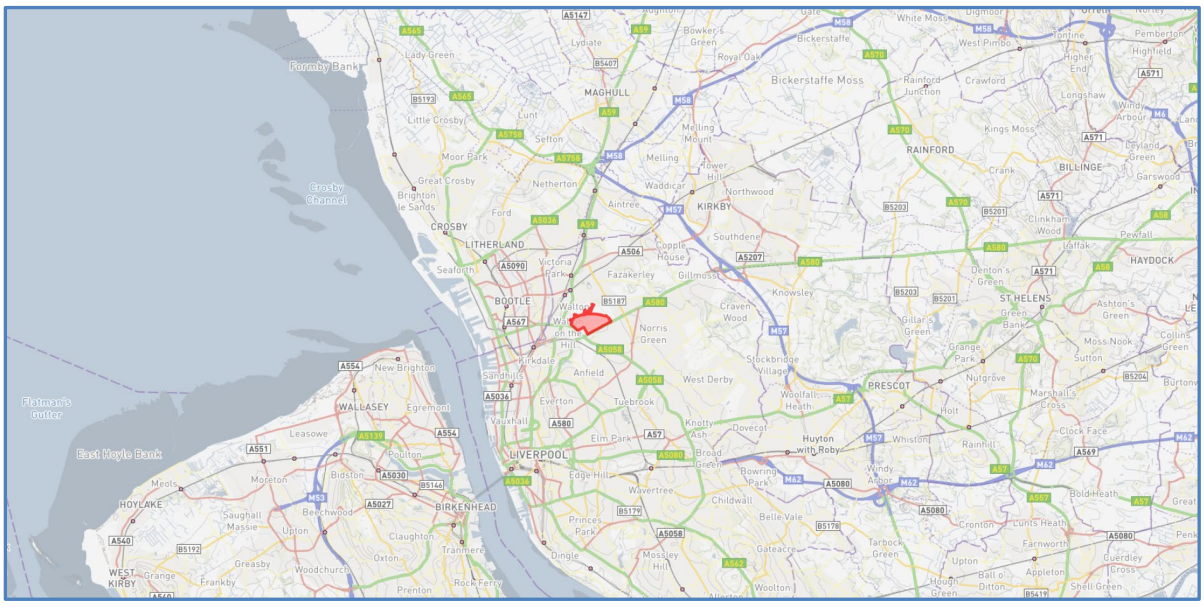
https://try.dynamicmaps.co.uk/MapThat/Login.html?user=public&treeid=9654



5.3. Login as Public User and Filter the Open Spaces Layer to Show feature ID 8:

This URL will bypass the login screen and open the Public MapThat Project using the **User – Public.** It will then show the **Open Spaces Layer** (9654) and **Filter** that Layer to only show the Open Space who's **Feature ID = 8**

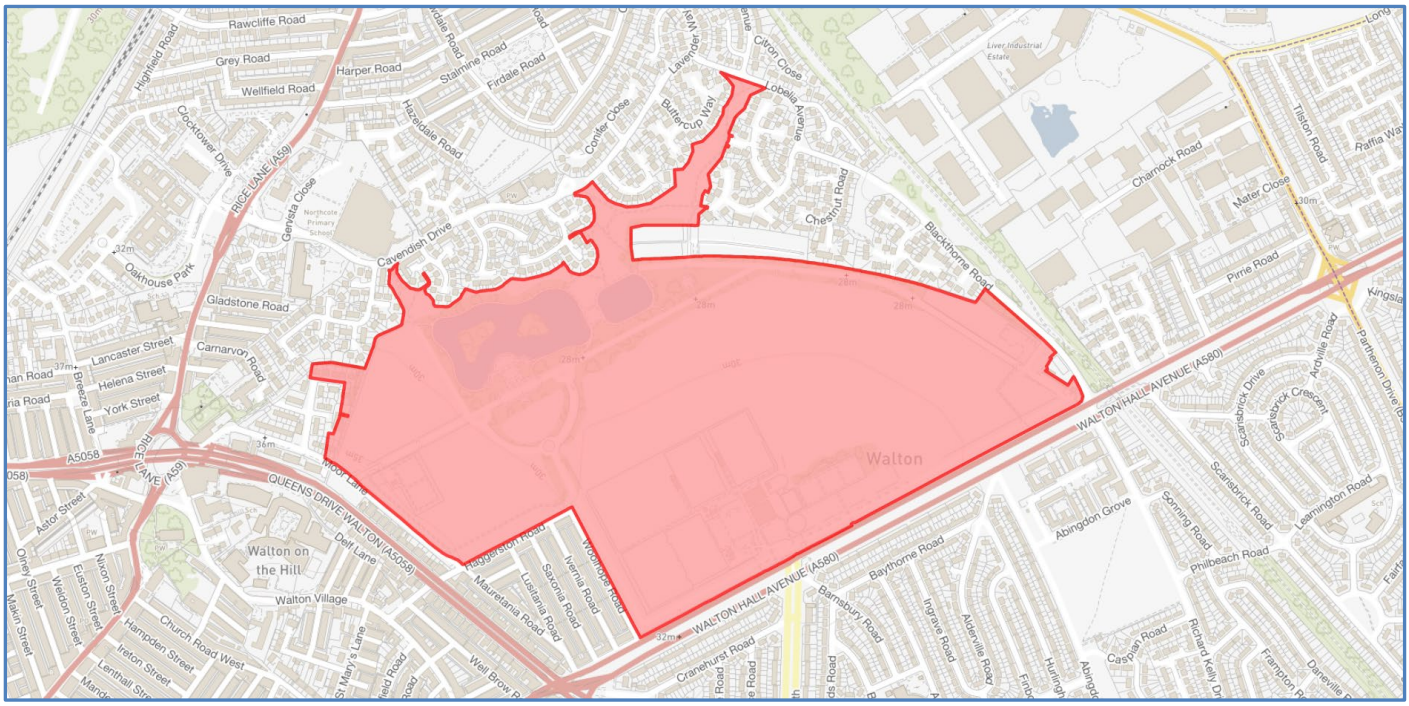
https://try.dynamicmaps.co.uk/MapThat/Login.html?user=public&treeid=9654:8&&filterrecords=y



5.4. Login as Public User, Filter the Open Spaces Layer and Zoom to the Extents of feature ID 8:

This URL will bypass the login screen and open the Public MapThat Project using the **User – Public.** It will then show the **Open Spaces** Layer (9654) and **Filter** that Layer and **Zoom to the Extents** of the Open Space record who's **Feature ID = 8**

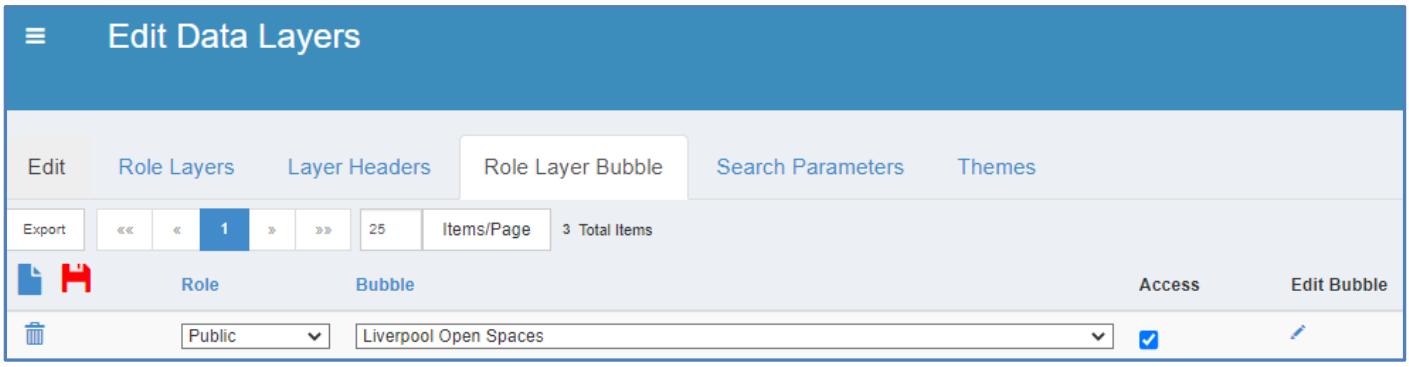
https://try.dynamicmaps.co.uk/MapThat/Login.html?user=public&treeid=9654:8&zoomextents=y&filterrecords=y



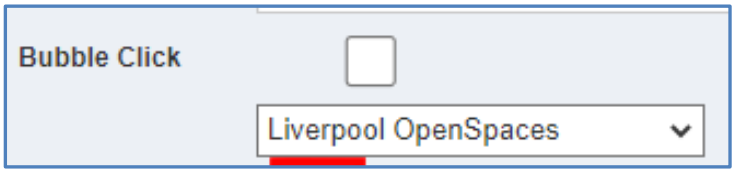
6 – Finishing Touches

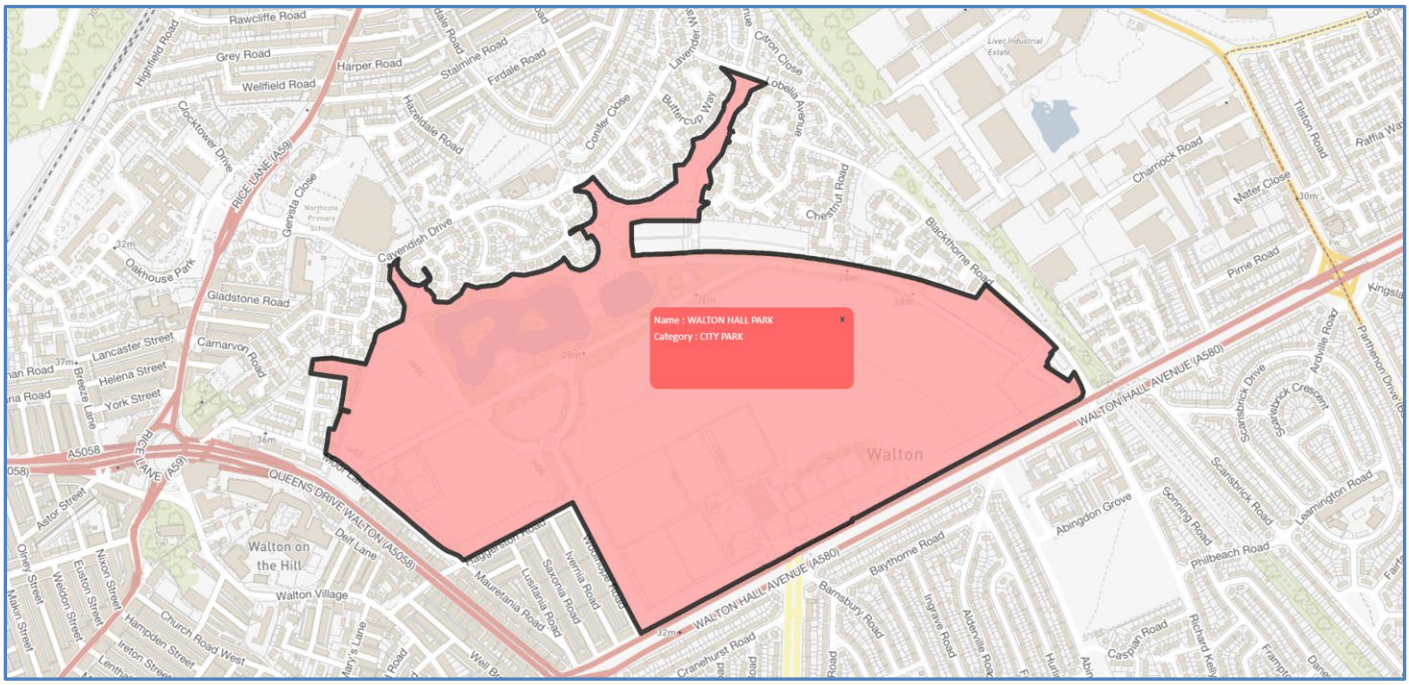
Now that we have a thinned/simplified Public Project, with decorated URLs to easily open the Project, we can start to **embed** these MapThat Projects (e.g. using an **Iframe**) more easily within your own intranet and internet webpages.

However, you may wish to apply some **finishing touches**. For example, because we have created a new Public Role, we will need to associate that Role to our **Layer Bubble**, so that we can view the **attributes** for the displayed features.



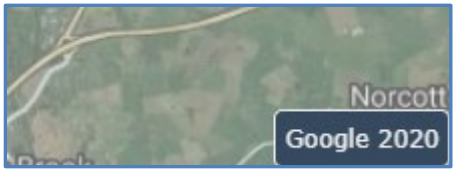
Tip - *you may wish to set the Bubble option to* ***untick*** *the* ***on-click*** *action, so that the bubble now shows when the user* ***hovers*** *over the feature. Again, this helps simplify the Public Users experience.*

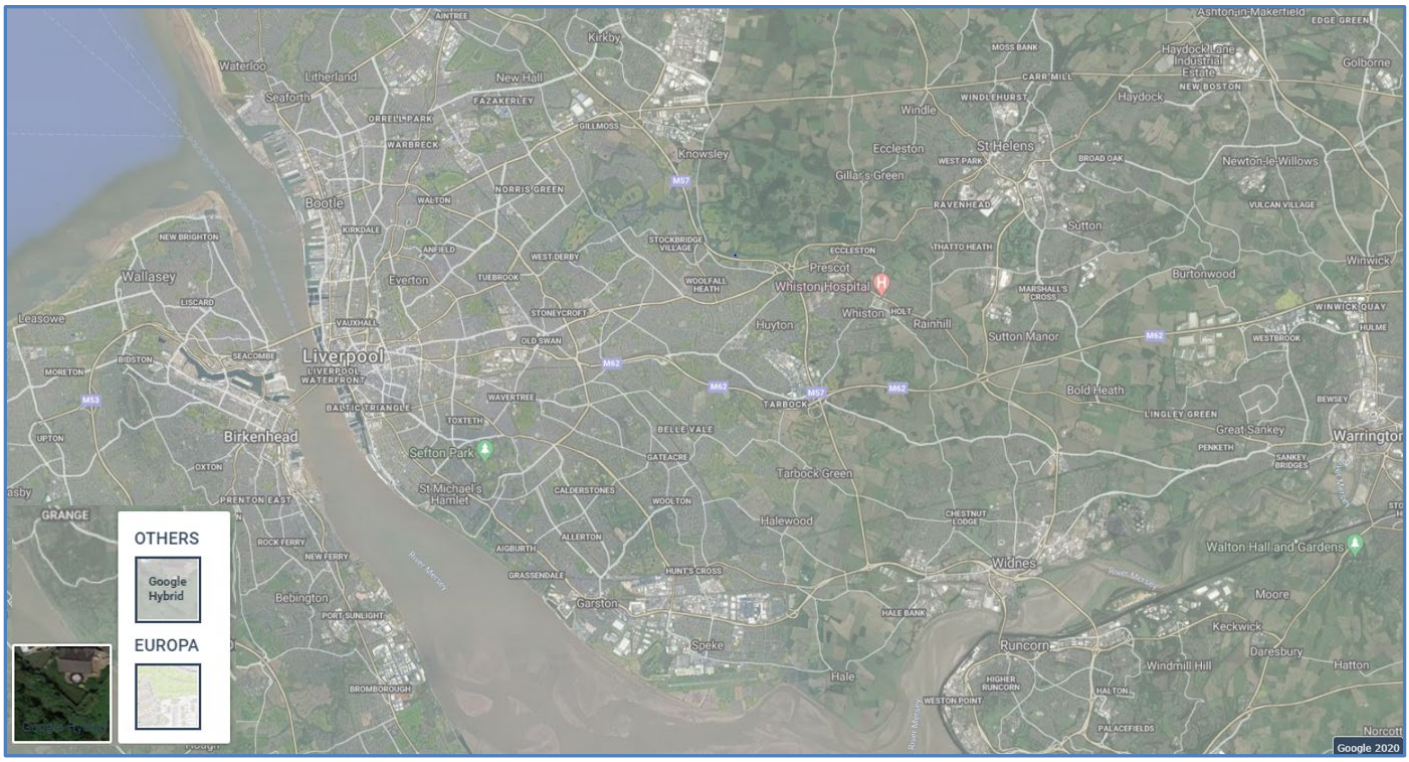




Finally, although the thinned/simplified map looks great, you may wish to add back in some core tools that you wish the Public to use e.g. the **Baselayer Picker**, so that they are able to choose an alternate Basemap.

And with that, I would always suggest you show the **Basemap Accreditation** for the chosen Basemap!





There we have it!

We have now explored how Cadline's webGIS – **MapThat** – which we often configure internally with as many high-end Geospatial Tools as possible, can also very easily be used to deliver simplified **Public Facing WebMaps.**