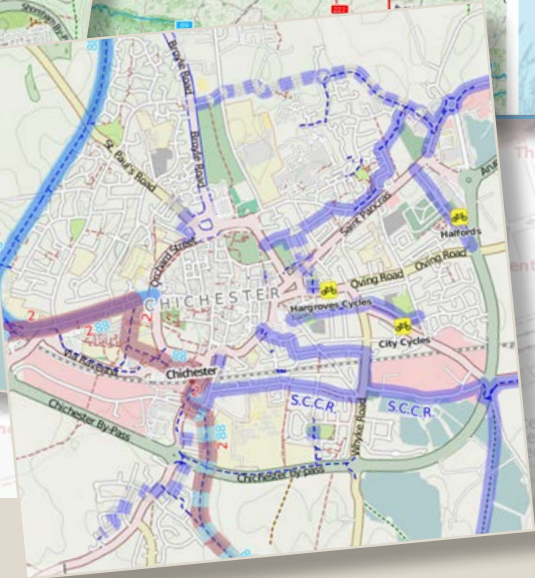
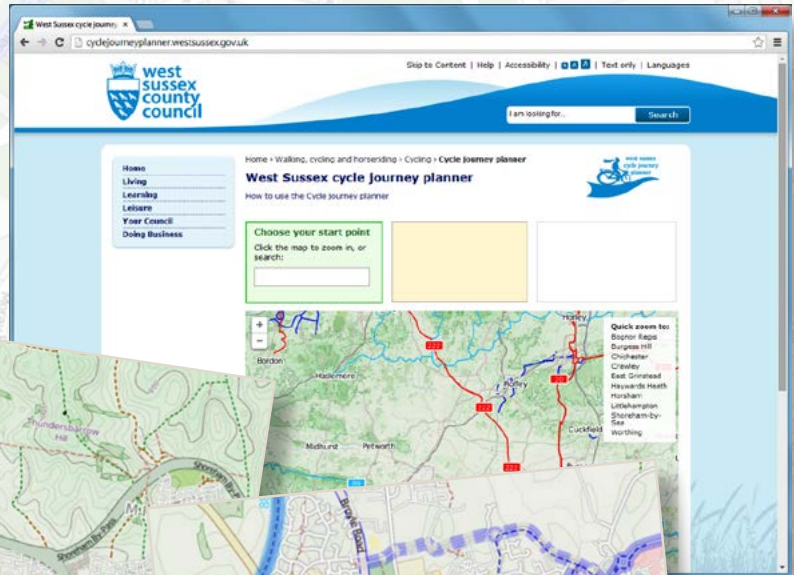


Cycle mapping for cycle routing with OpenStreetMap



UK-wide cycle journey planner,
by cyclists, for cyclists.

www.cyclestreets.net

Introduction



Finding out about good cycle routes – where it is safe and convenient to cycle – means availability of good maps and the knowledge of local people about their area.

Cycle routes from OpenStreetMap

OpenStreetMap is a worldwide volunteer project allowing people like you to map their own communities. It began in the UK in 2004 and has since had over a million contributors. The map data is released under a free and open license, allowing everyone to use the data for any purpose – from online maps to printed atlases to mobile phone applications.

OpenStreetMap data powers many different sites, including OpenCycleMap, a worldwide cycling map created by cyclists, and CycleStreets, the UK-wide online cycle journey planner. Cycle journey planners and multi-modal planners such as those of West Sussex County Council and Cycling Scotland also use this information.



CycleStreets app
(free on iPhone and Android)



You can add all kinds of details that are useful for cyclists, from off-road paths to cycle lanes to bike shops and bike parking.

We're always looking for more volunteers to help us out. There's no time commitment and no training required – simply use this guide and the online resources and you'll be improving the map in no time.

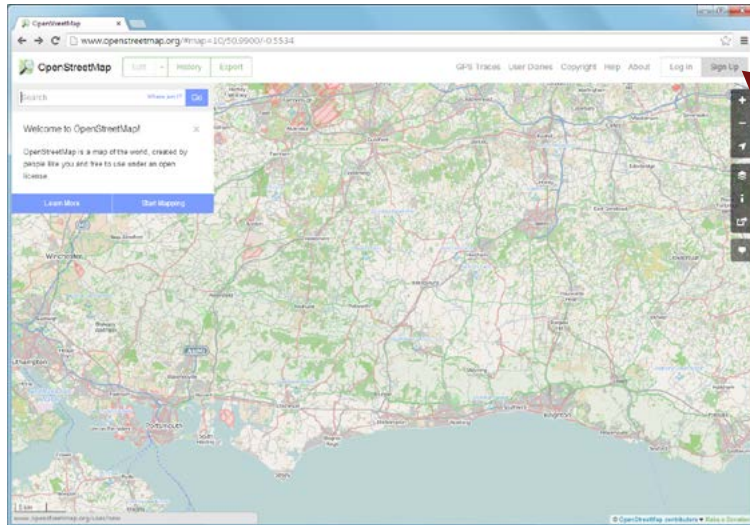
It's a fun reason to explore your local area and add new features to the map for everyone to benefit. And changes made start showing up in only a few minutes, so it's rewarding too!



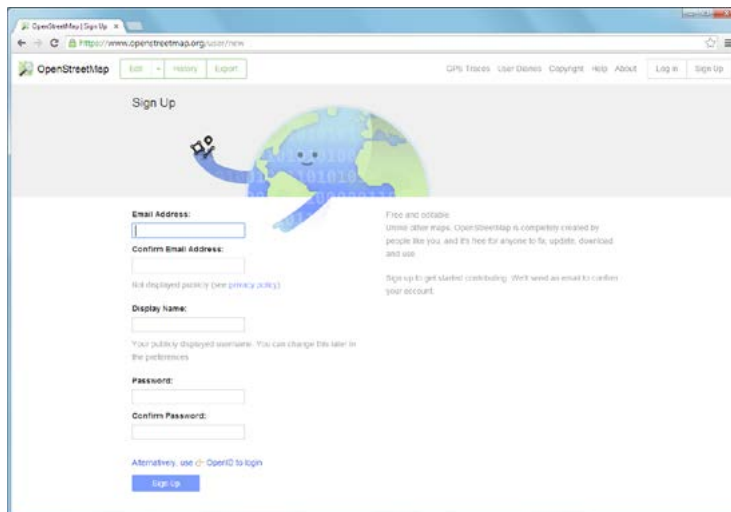
Getting started

To get started, you need to create a free OpenStreetMap account.

Step 1 : Go to www.openstreetmap.org and click on “sign up”:



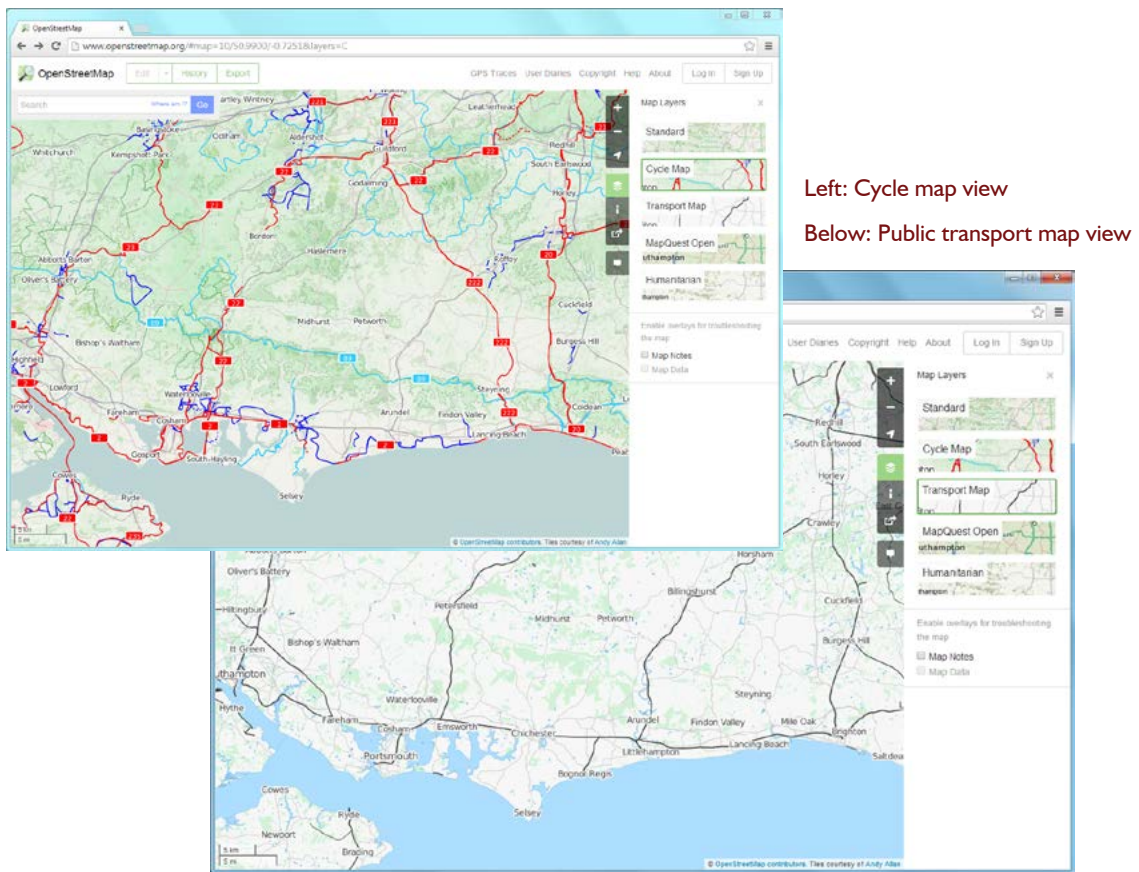
Step 2 : Fill in your details and accept the terms and conditions:



Step 3: You'll get a confirmation e-mail. Click on the link to confirm your address, and that's it!

After you've created an account there's some other things you can try out before mapping. You could add details about yourself on your user page – click on your name in the top right, and then click on **My Settings**, to get there. You can set your **home location**, and that'll show you other mappers nearby and what they are up to. And if you wish, have a read of the **User Diaries** to see what other mappers are up to around the world.

On the front page of the site you can view different maps that people have made from OpenStreetMap data – click the Layers icon on the right to see the options:



Left: Cycle map view
Below: Public transport map view

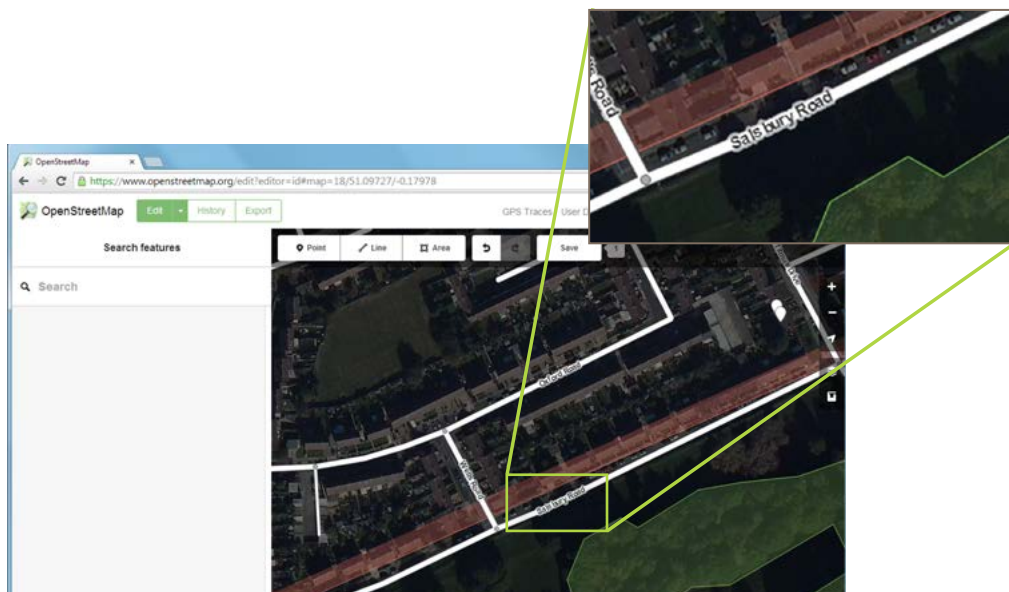
There's a button on the right if you need to find out what anything means.

If you're making leaflets, then there's the **Export** tab at the top for grabbing an image of the area that you're mapping.

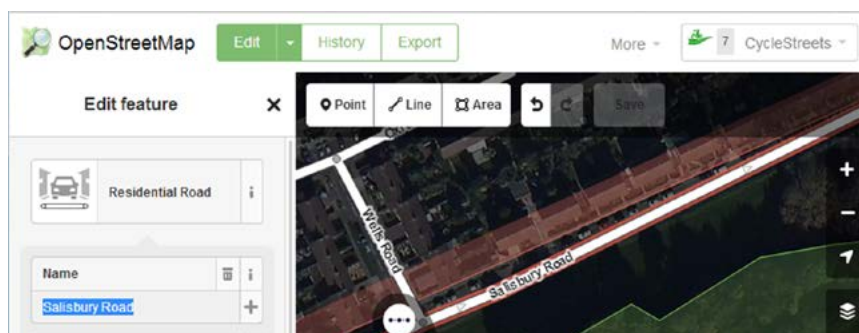
Your first edits

Let's show you how to get started with your first edits with OpenStreetMap.

In this first example, we've spotted a road that has a typo in its name – it says “Salsbury Road” instead of “Salisbury Road” – and it's easy to fix. First we press the Edit link at the top of the page, selecting **Edit with iD**, to fire up the editing software, known as **iD**. After 5-10 seconds the editor loads and we can click on the street we want to fix.



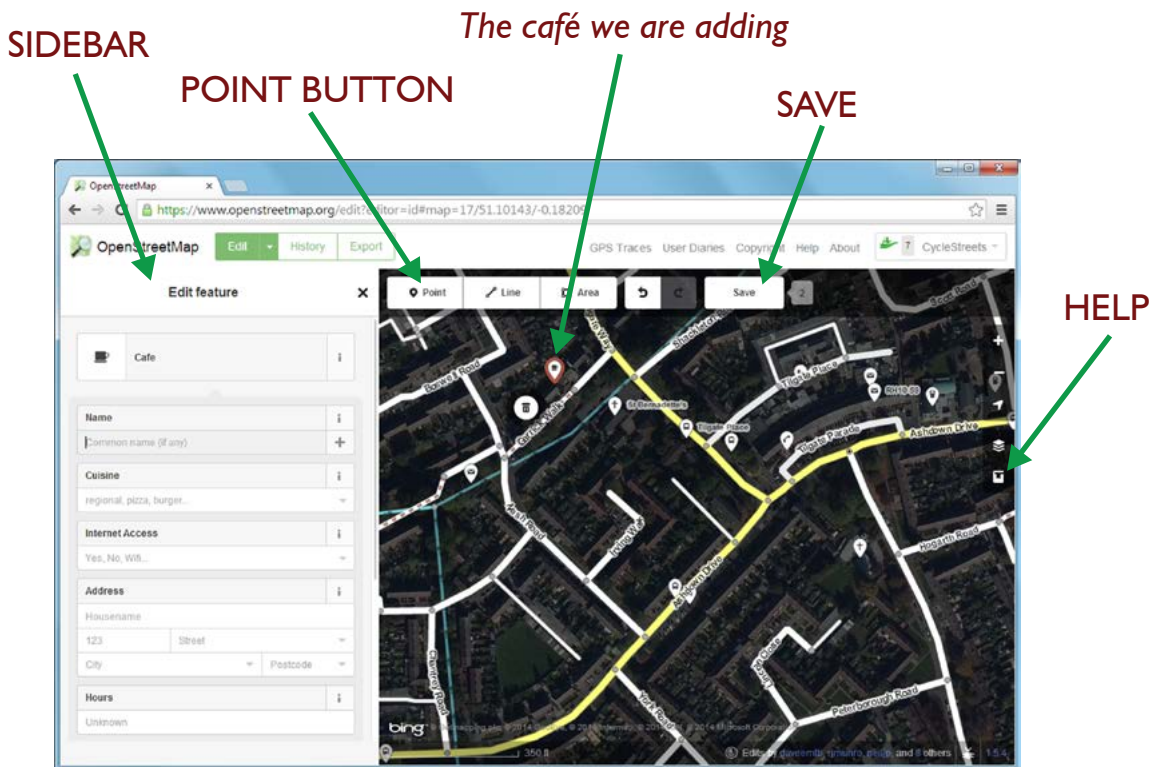
The **left hand panel** lets us change the details of the street. At the top, there is a box with the name in it – we can click here and fix the typo. Now we need to save our changes, so we press the **Save button**.



There's an optional **Commit message** box to explain to other mappers what we've changed, so we'll type “Fixed typo in street name” and press Save. And that's it! When we press the **View tab** to go back to the map, the changes will show up within a couple of minutes.

Let's try another example, but this time to add a local café.

Open the editor as before, and then click on **Point** near the top of the screen. On the left, you can then choose or search for café. When you've selected café, you can add the name of the café and any other details.



Tracing over imagery

You can add a new road or footpath by tracing over the background imagery, provided by Bing. Don't use other satellite photography or maps, though – we don't have permission to use them.

Firstly, click on **Line** at the top. Then click where you want to start drawing a line, then click again to **add the next point**, and keep clicking to the end of the road. If you want to join onto another road, click where you want the junction to appear. Click on the last point (called a 'node') twice, or press enter, to **stop editing**.

Collecting data

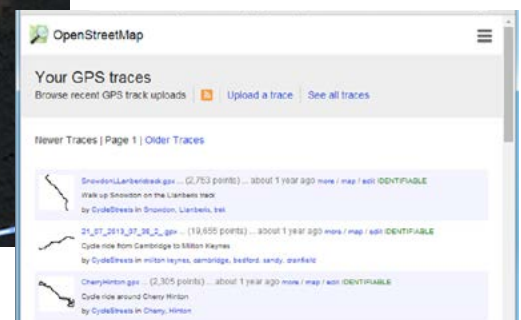


You don't need any specialist equipment to collect data – **even a pencil and paper** is enough to note down details of features you want to add to the map. It's often easier to take photos of things like street signs and shop names - especially if it's raining!

If you own a GPS device, you can use it to help with your mapping. Save your track log as a GPX file and upload it to OpenStreetMap, using the 'GPS Traces' link at the top of the page. When it's been processed, click on the edit link to start your editing session in the right place, with the route that you took showing up as a purple line in the editor. You can use your trace as a guide for exactly where you went. (The GPX track itself is not added to the map directly.)

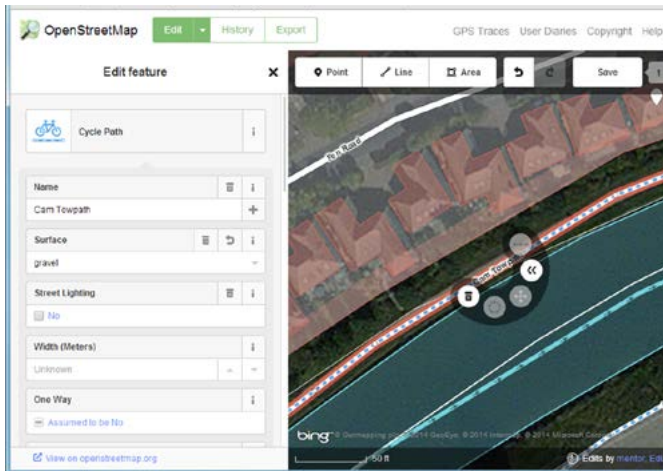


Converting your GPS trace (in purple) into a real map line (white)



Seeing the raw data

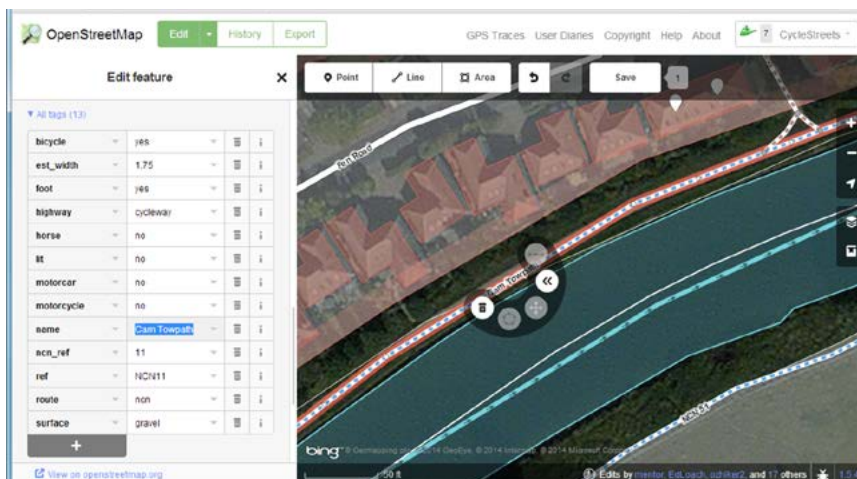
When you add details to the map, such as a street name or whether there is a cycle path and how wide it is, you're actually adding a **tag** and a **value** for it. You may never need to use this stuff, but it's sometimes useful to know that it's there.



For instance, here we are editing a track alongside a river. We've clicked on the line, and the details appear on the left.

But if you scroll down and then click on **All tags** at the bottom of the screen, you can see how the information is stored.

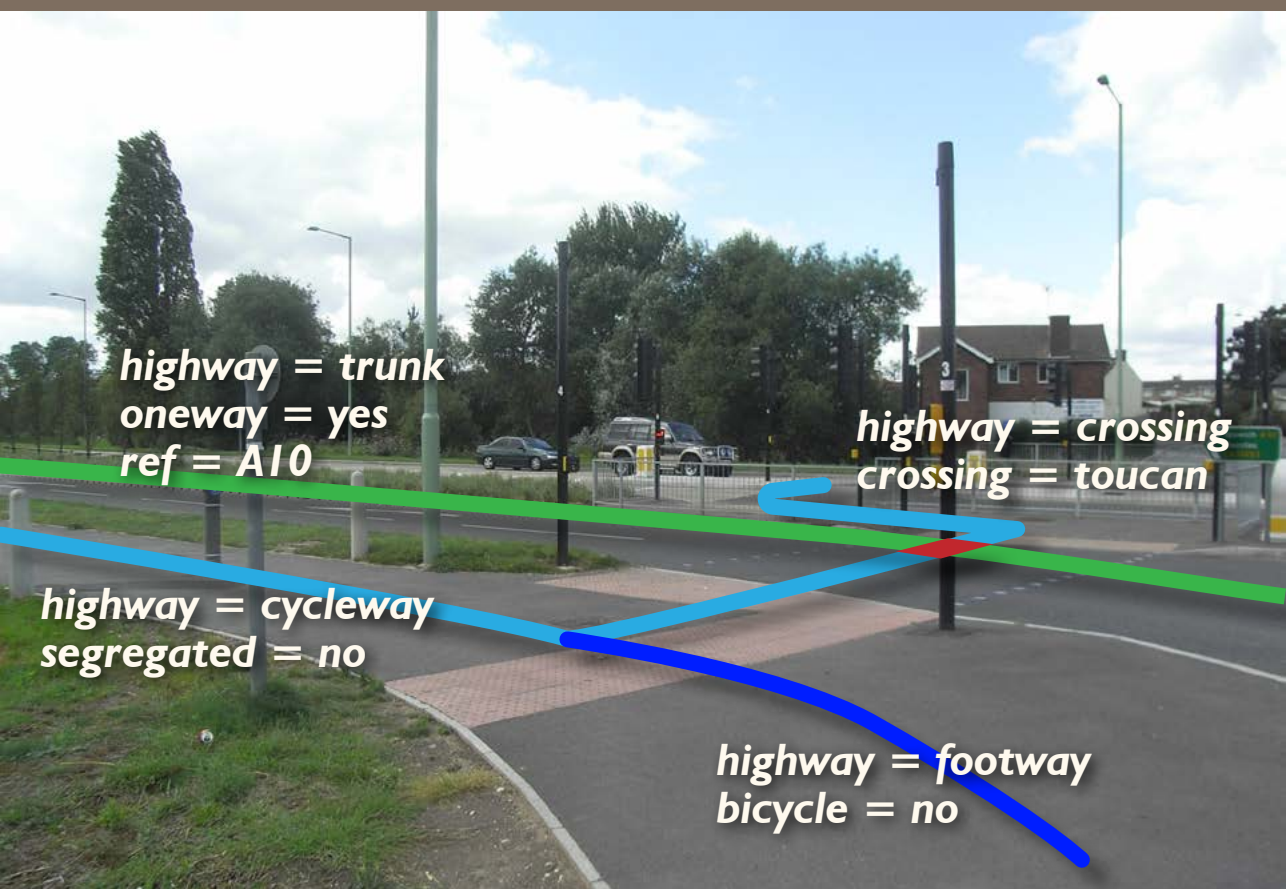
If you want, you can enter the details in this more advanced section directly.



Here the track is represented as **name = Cam Towpath**. In other words, the tag is '**name**' and the value is '**Cam Towpath**'.

Likewise, **surface = gravel** and **lit = no**, and the estimated width is **1.75m**.

Typical scenes

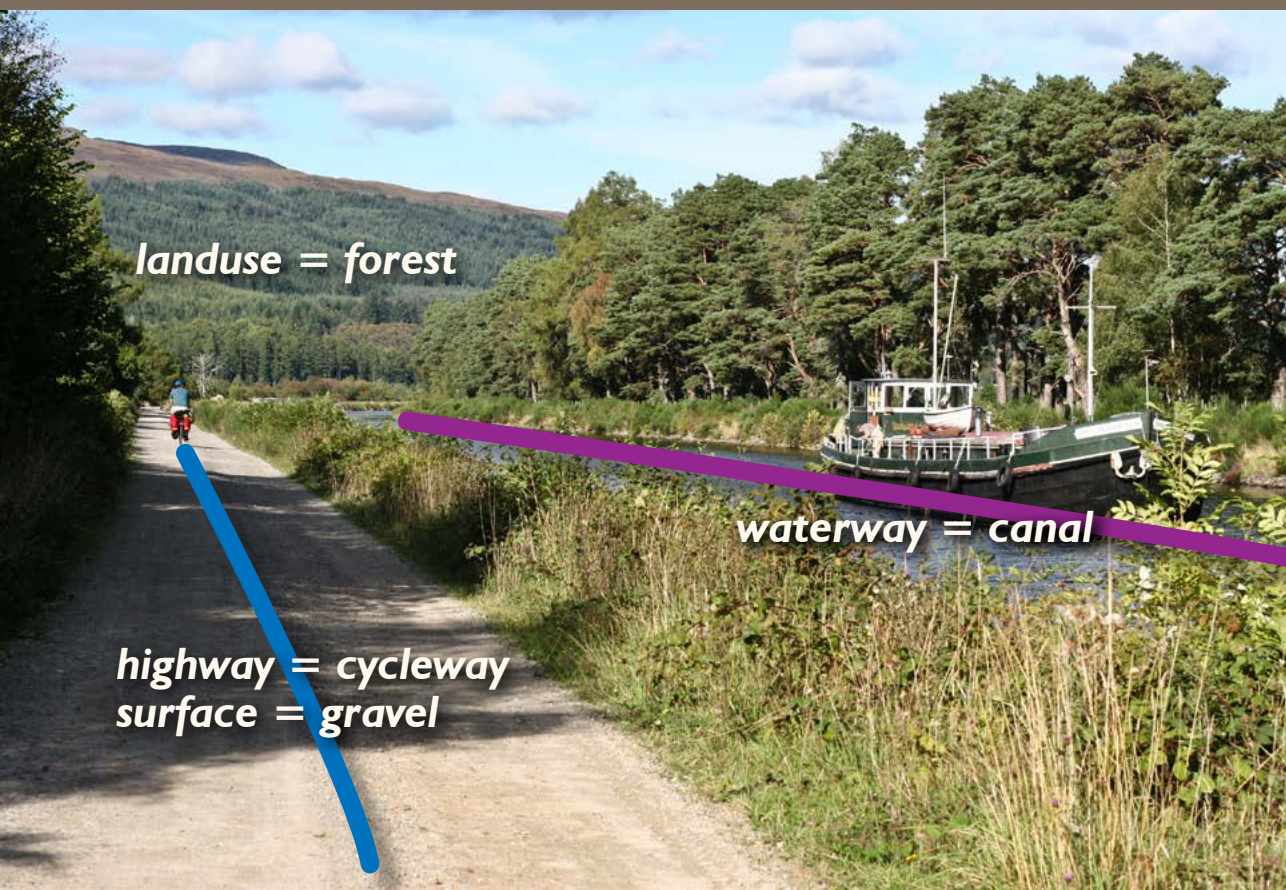


Here are some examples of how you might convert real-world situations into OpenStreetMap data. We've annotated the photos to give you an idea how you could represent things when editing.

Need more help?

Need help? There's an built-in help system within the editor, and lots more on the OpenStreetMap wiki at wiki.openstreetmap.org.

And don't worry about making mistakes – there's an undo button when editing, and the best way to learn is by trying!



landuse = forest

waterway = canal

*highway = cycleway
surface = gravel*

When collecting data for OSM always do so safely - don't put yourself in any dangerous situations, and remember to concentrate on the traffic as well as the data gathering!

For some features - like railways and lakes - it's easier to get the shapes by tracing over the background aerial imagery.

Advanced attributes

On most maps you see the same information - the type of the road, its name(s), and paths if you're lucky. **OpenStreetMap**, however, allows you to record all kinds of facts about the paths and roads – not only the basic ones but all kinds of useful details.

Adding more detailed information means that cycle journey planners can give improved routes.

Some of the attributes you might want to consider recording in OSM include (with example tags here shown in brackets):

- ▾ How many lanes of traffic are there on the road?
(e.g. lanes=2)
- ▾ How wide is the road/path?
(width=3.5, meaning 3.5m)
- ▾ What is the speed limit on the road?
(maxspeed=30 mph)
- ▾ Is the path surface asphalt, mud, or gravel?
(e.g. for gravel use surface=compacted)
- ▾ Are there railings at the edge of the pavement?
(Draw in a line with barrier=railing)
- ▾ How many steps are there in the flight?
(highway=steps, step_count=30)
- ▾ Does the path have street lighting?
(lit=no)
- ▾ What times of day does the pedestrian precinct operate?
(highway=pedestrian, hour_on=10:00:00, hour_off=16:00:00)
- ▾ Can you fit a cycle trailer between the bollards?
(barrier=bollard, maxwidth=2.5)
- ▾ Is the cycle parking a sheffield stand or some other type?
(amenity=bicycle_parking, covered=no, capacity=6,
bicycle_parking=wall_loops)

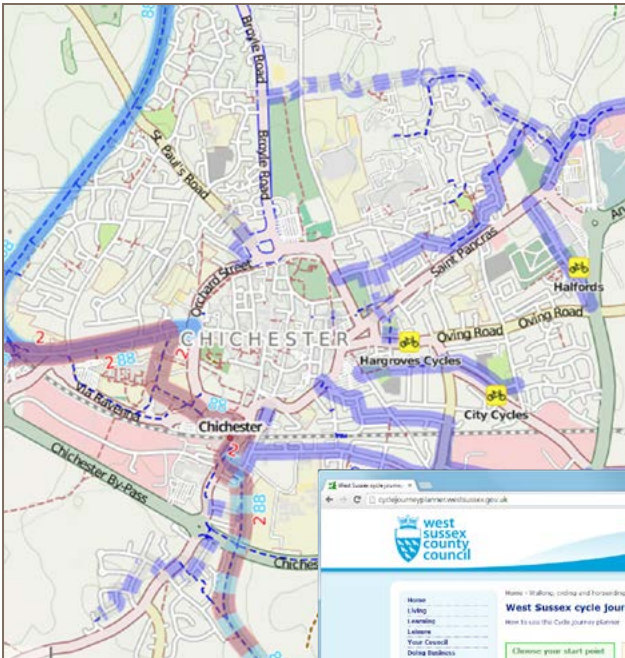
List of map features and tags

A good reference guide is wiki.openstreetmap.org/wiki/Map_Features, or search the rest of the OpenStreetMap wiki for even finer details!

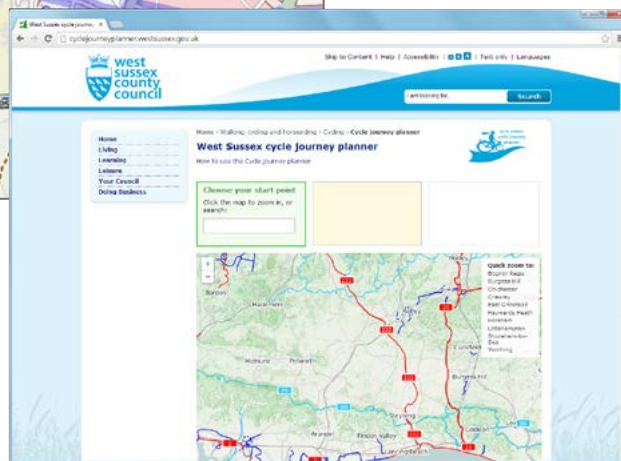
Although these extra attributes often make no difference to the way they are drawn on the map, they are used by other projects such as routing software like the cycle journey planner (from CycleStreets).

These extra attributes allow the routes to be refined to improve the end results, for example by avoiding paths that have an unsuitable surface for cycling on, or ignoring narrow cycle lanes.

cyclejourneyplanner.westsussex.gov.uk



Bike Hub app
(free on iPhone and Android)



Group meetups



A social meeting after doing some mapping!

Group meetups are a great way to meet your fellow mappers, swap notes and learn from one another. Sometimes these meetups take the form of a **'Mapping Party'** – a one or two day event where people meet, divide an area up between themselves and map! Everyone then meets back together and often edits OSM there and then. They are a great way to get started and introduce new people to OSM techniques.

Look on the OpenStreetMap wiki website to see if there's a meetup in your area. Alternatively, make contact with other mappers in the area by going to the main OpenStreetMap website, clicking on your username in the top-right, and selecting **My Profile**. You can then see nearby users, and send a message to them.



There are many places to find out more about OpenStreetMap and to get involved in your local mapping community

Documentation

There is lots of documentation available on the OSM wiki.

See wiki.openstreetmap.org

Help system

Stuck on some mapping question and can't find the answer?

Ask or search on help.openstreetmap.org

Mailing lists

Sign up to the [Talk-GB](mailto:Talk-GB@openstreetmap.org) e-mail list for GB-specific discussions

Other options

From web forums to IRC chat, check out the options at

wiki.openstreetmap.org/wiki/Contact

Mapper diaries

Read what other mappers have been up to at blogs.openstreetmap.org



Guide originally produced for, and funded by, Cycling Scotland to help encourage community mapping. 2014 edition edits for, and funded by, West Sussex County Council.

Written by Andy Allan and Martin Lucas-Smith.
Designed by Ayesha Garrett.
Created by CycleStreets 2012 and 2014.
www.cyclestreets.net
info@cyclestreets.net

Image credits: Cycling Scotland, CycleStreets, David Earl, Alexander Kachkaev, Mary Sanseverino, Andrew Turner.

Text can be freely reproduced under the Creative Commons Attribution-ShareAlike 2.0 license.