

■■ Gates Map Cheatsheet (OS + PMTiles)

1. Prepare your CSV

Ensure columns:

...

id,name,lon,lat

1,Gate near: NY 37494 05457,-2.965263,54.440657

2,Gate near: NY 33018 07058,-3.034633,54.454476

...

Confirm with:

...

head -5 gates.csv

...

2. Convert CSV → GeoJSON

...

```
python3 - <<'PY'
```

```
import pandas as pd, json
```

```
df = pd.read_csv("gates.csv")
```

```
features = []
```

```
for _, row in df.iterrows():
```

```
    features.append({
```

```
        "type": "Feature",
```

```
        "geometry": {"type": "Point", "coordinates": [row["lon"], row["lat"]]},
```

```
        "properties": {"id": int(row["id"]), "name": row["name"]}
```

```
    })
```

```
geojson = {"type": "FeatureCollection", "features": features}
```

```
json.dump(geojson, open("gates.geojson", "w"), indent=2)
```

```
print("■ Wrote gates.geojson with", len(features), "features")
```

```
PY
```

...

3. GeoJSON → PMTiles with Tippecanoe

...

```
tippecanoe -o gates.pmtiles -l gates -zg --drop-densest-as-needed --no-feature-limit
--no-tile-size-limit gates.geojson
```

...

- `-l gates`` → sets the layer name (must match in MapLibre style).
- Check file size (should be <100MB for GitHub hosting).

4. Host on GitHub Pages

Put these files in your repo root:

...

```
index.html
gates.pmtiles
```

...

Commit & push.

Enable GitHub Pages → branch: ``main`` → folder: ``/root``.

Your map lives at:

...

```
https://USERNAME.github.io/REPO/
```

...

5. Update index.html

...

```
"url": "pmtiles://https://USERNAME.github.io/REPO/gates.pmtiles"
```

...

6. Ordnance Survey Basemap

...

```
"tiles": [
  `https://api.os.uk/maps/raster/v1/zxy/Leisure_3857/{z}/{x}/{y}.png?key=${OS_KEY}`
],
```

...

7. Add Vector Layer

...

```
{
  "id": "gates-circles",
  "type": "circle",
```

```

"source": "gates",
"source-layer": "gates",
"minzoom": 12,
"paint": {
  "circle-radius": 4,
  "circle-color": "#e53935",
  "circle-stroke-color": "#fff",
  "circle-stroke-width": 1
}
}
...

```

8. *Popups*

```

...

map.on("click", "gates-circles", (e) => {
  const p = e.features[0].properties;
  new maplibregl.Popup()
    .setLngLat(e.lngLat)
    .setHTML(`${p.name}`)
    .addTo(map);
});
...

```

■ Open `https://USERNAME.github.io/REPO/` → OS Leisure basemap + Gates circles (zoom 12+)
 + popup on click