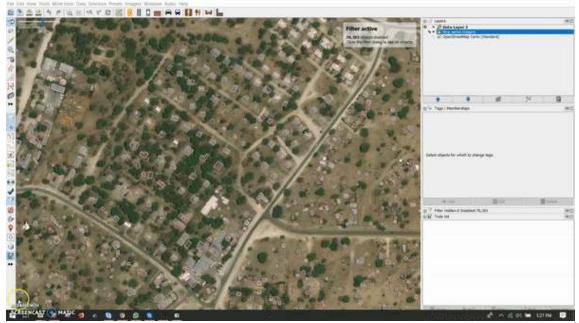## 5.3 Data Cleaning with JOSM

There are tools built into JOSM, as well as additional plugins that can assist with data quality control during the upload process.

- **Filters** is a built-in tool that allows you to disable, hide, select, and highlight specific groups of objects based on flexible custom parameters. This tool will help you to spot and avoid common mistakes, and review data.
- The **Validation Tool** is another built-in tool that will review and search for common errors as well as provide warnings about potentially problematic data.
- The **Todo List** plug-in allows users to systematically review data that is to be uploaded, and monitor progress of data cleaning work. The "ToDo List" plug-in, needs to be downloaded before it can be used. Visit this page to learn how to install plug-ins in JOSM, then download the "ToDo List" plug-in.

- **MapCSS Paint Style** is an advanced JOSM quality assurance tool that can be used to visually identify errors such as missing tags and road network issues. Existing MapCSS Styles can be imported or with some training, quality control teams can create their own MapCSS styles that match their data model.