

Road Editing

High Classification Routes

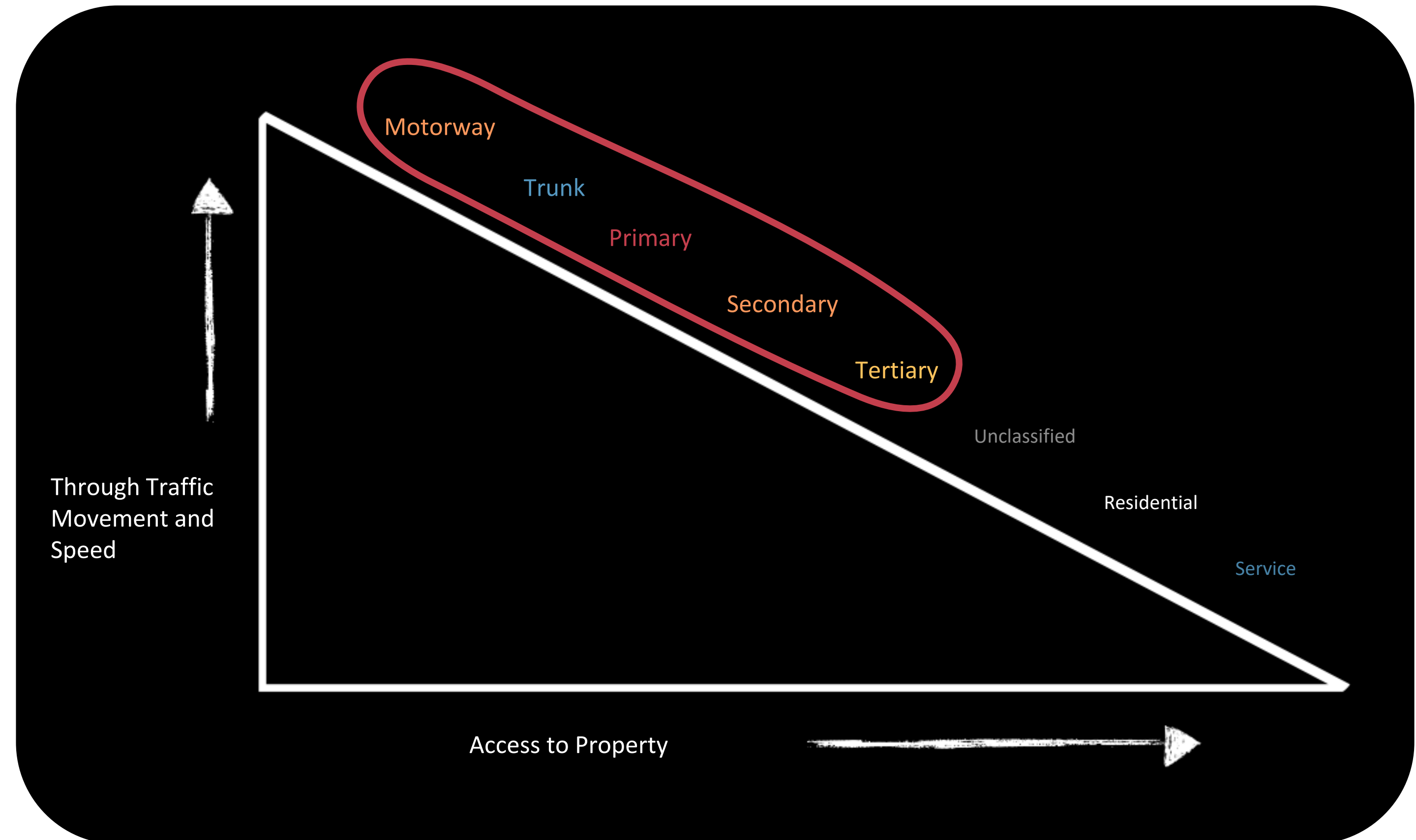
July 2018

High Classification Routes Intro

High Classification Routes

What are High Classification Routes?

- Highways classified as Motorway down to Tertiary
 - Highest impact edits
 - Most important roads of a country
- Motorway and Trunk are most critical
- Not all countries have Motorways, but most have Trunks
- Necessary for logical, cohesive network
- Allows for efficient routing and navigation



OSM Classification

High Classifications

- High Classification editing focuses on [Motorway](#), [Trunk](#), [Primary](#), [Secondary](#), and [Tertiary](#) highways
- If time is restricted, Motorway, Trunk, and Primary are the most important
- These roads have high visibility on the OSM map
- Names and highway shields (reference tags) are also highly visible, so their accuracy is important
- Low classification routes are also important since they may connect to high classification routes

motorway		A restricted access major divided highway, normally with 2 or more running lanes plus emergency hard shoulder. Equivalent to the Freeway, Autobahn, etc..		
trunk		The most important roads in a country's system that aren't motorways. (Need not necessarily be a divided highway.)		
primary		The next most important roads in a country's system. (Often link larger towns.)		
secondary		The next most important roads in a country's system. (Often link towns.)		
tertiary		The next most important roads in a country's system. (Often link smaller towns and villages)		

High Classification Routes

Why are they important?

- Highly visible on map
- Highly visible to OSM community and OSM users
- Critically affect routing for users
- Highest impact edits
- Best use of editing time in most cases

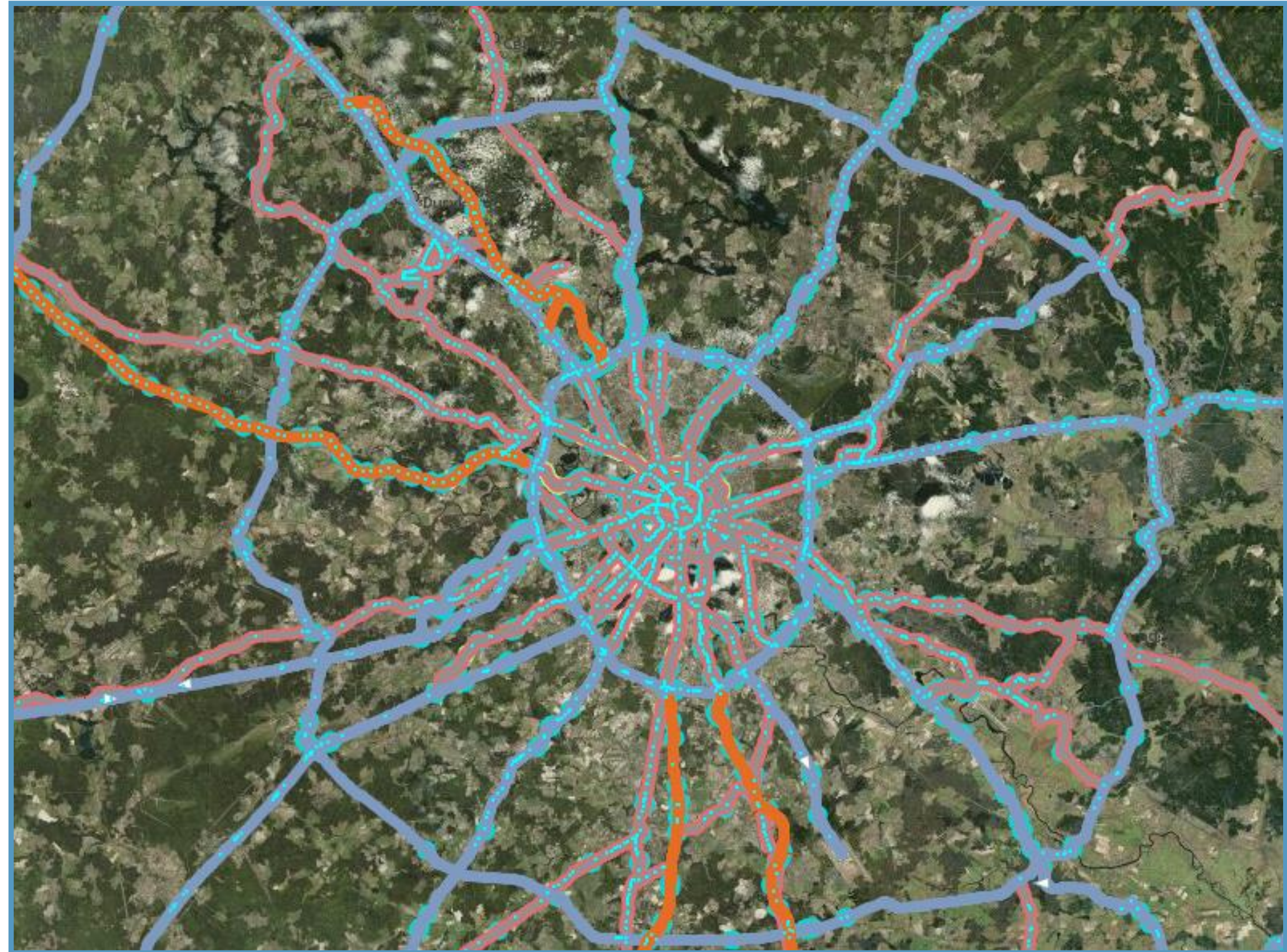


High Classification Routes

Editing Goals

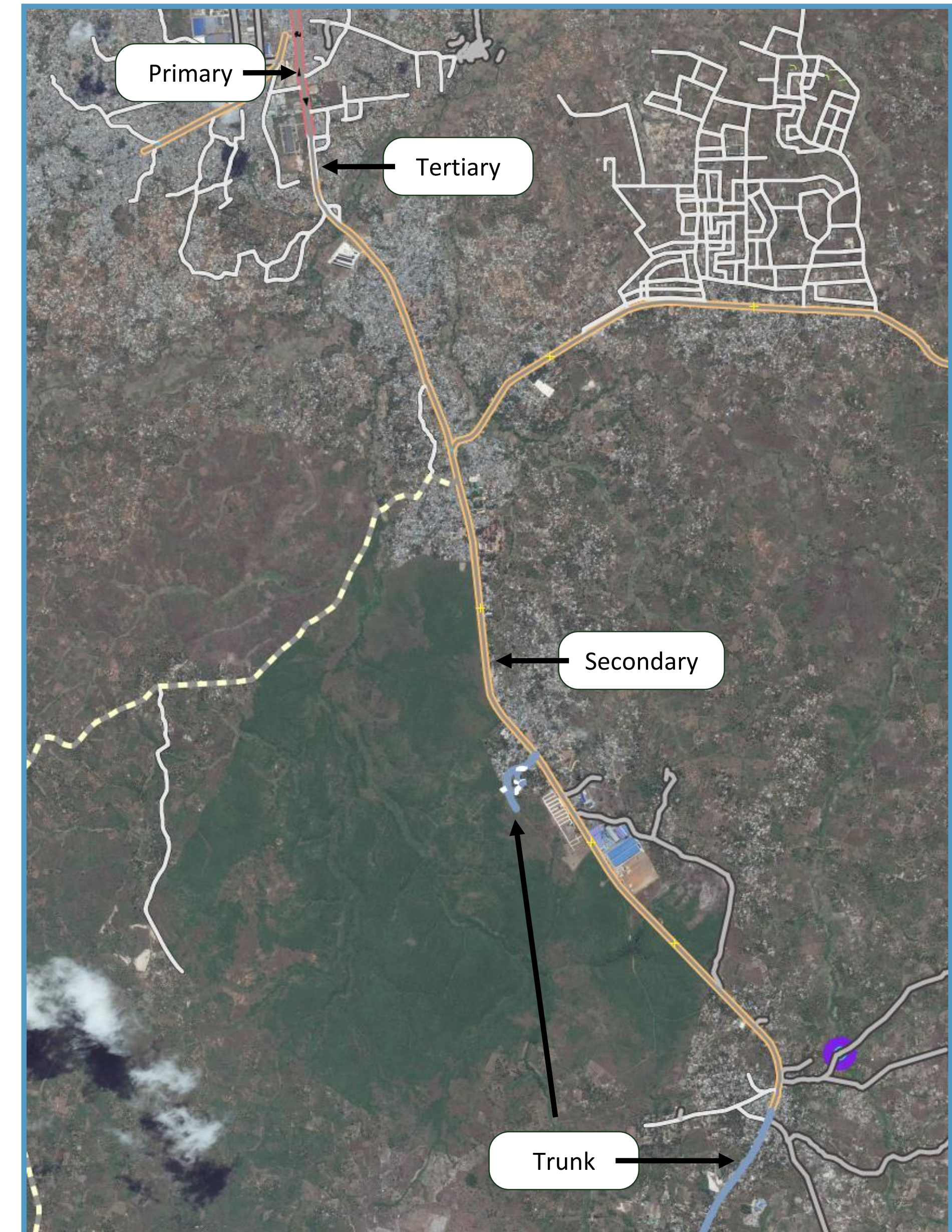
- Ensure consistent local highway classification hierarchy
- Ensure cohesive high classification network
- Fix bad geometry
- Add missing high classification roads
- Resolve name and reference tag issues
- Resolve route relation issues

Take your time! These edits are highly visible and important!



High Classification Routes

Bad Examples



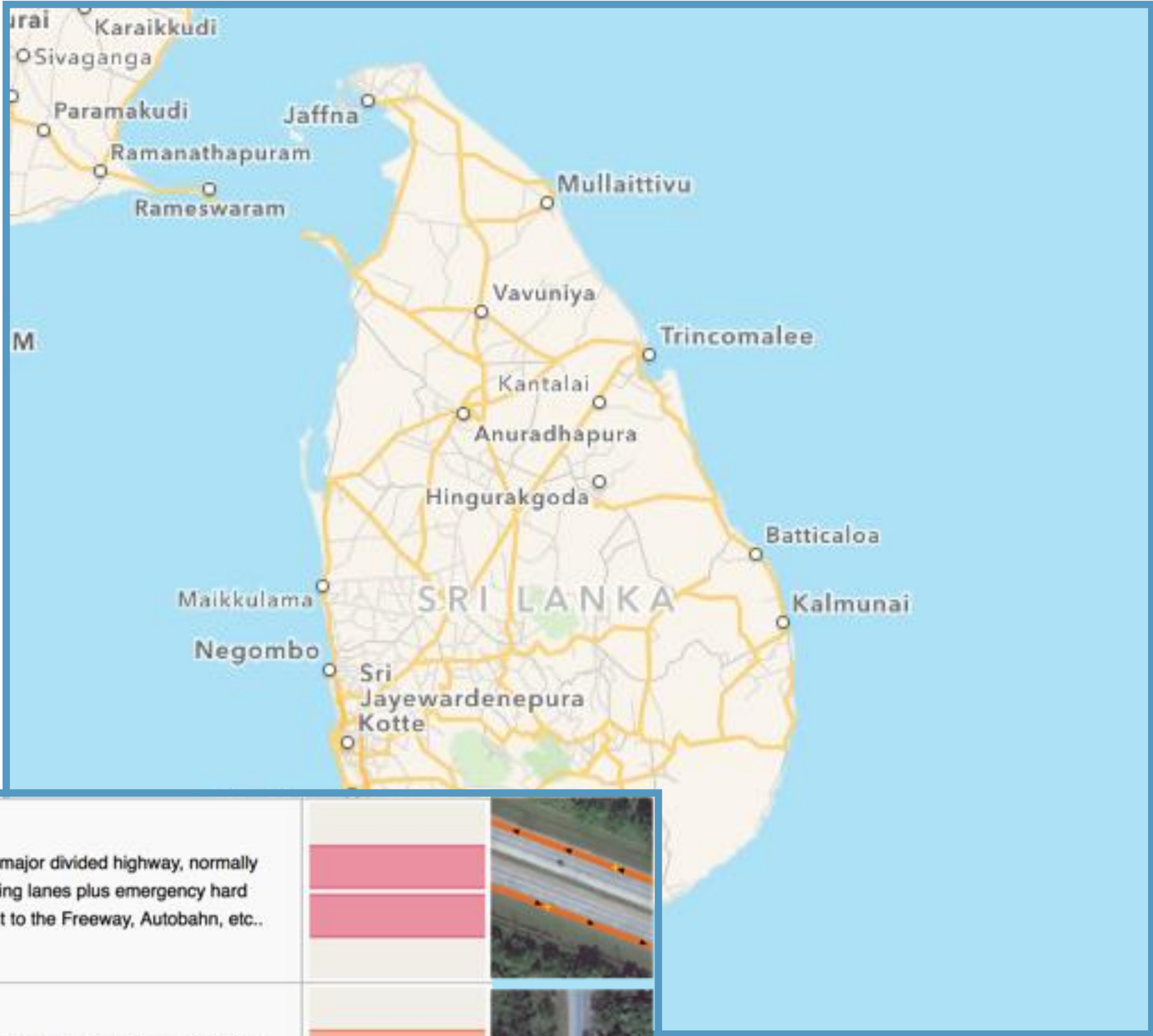
High Classification Workflow

High Classification Routes

Workflow

High Priority Roads, or HPR, was the original workflow for our team because it evaluates the “skeleton” of the highway network.

- Countrywide HPR
 - All “highway” values **Primary** & above to Motorway
 - Reviewed for countries new to our team and existing ingested countries
- Local/City HPR
 - All “highway” values **Tertiary** & above to Motorway
 - Often prioritized in areas important to our customers
- Purpose:
 - Review:
 - Conduct analysis of data quality (*Does the data make sense?*)
 - Ensure highway names and ref tags are logical
 - Edit:
 - To add missing roads, fix gaps, and classification inconsistencies



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High Classification Routes

Country-Specific Guidelines

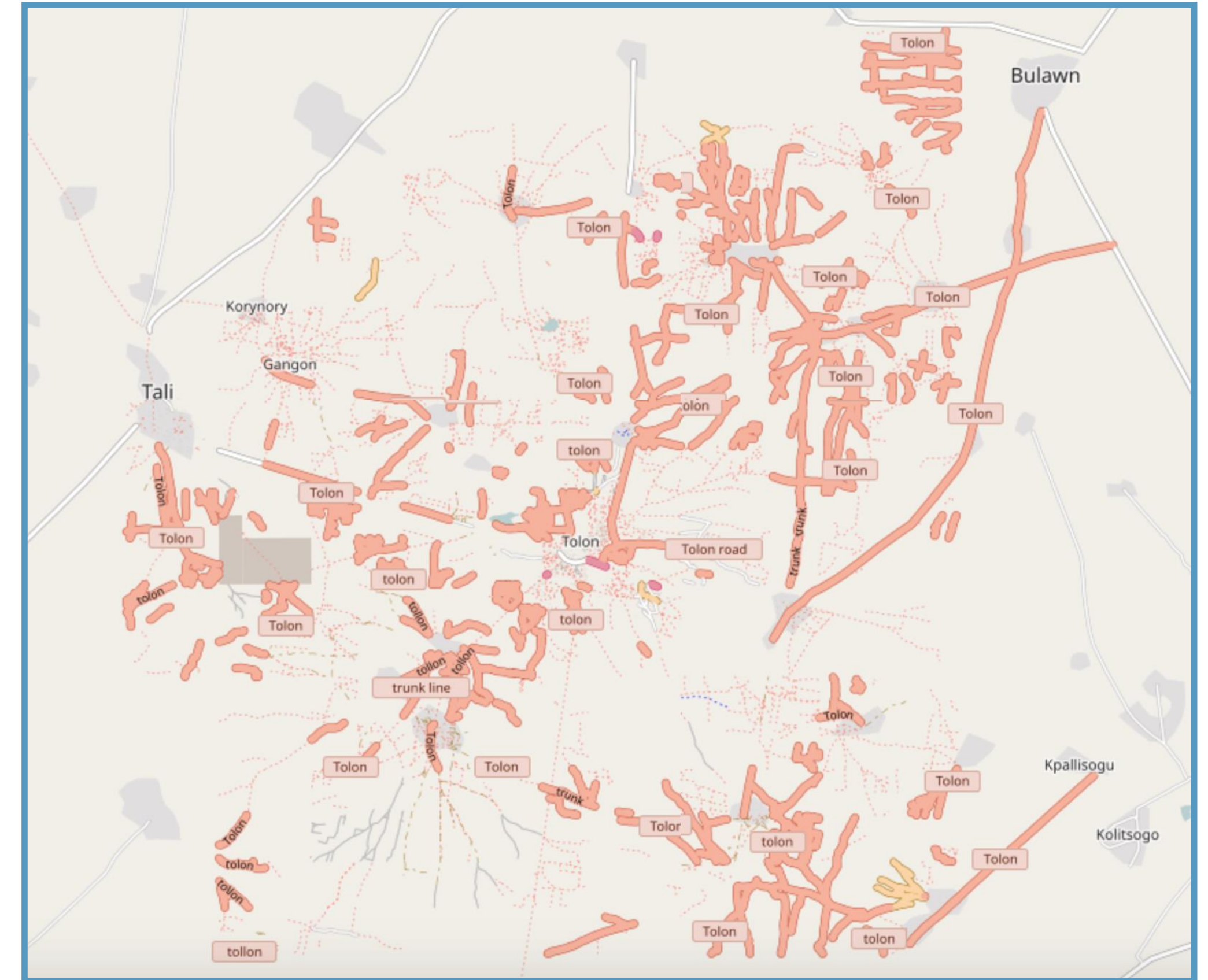
- Research a country's local OSM community for highway information so you make informed modeling decisions
- The general OSM wiki highway page is built around United Kingdom guidelines, which does not work for every country
- Some communities have developed guidelines on highway modeling



High Classification Routes

Issues: Road Clusters

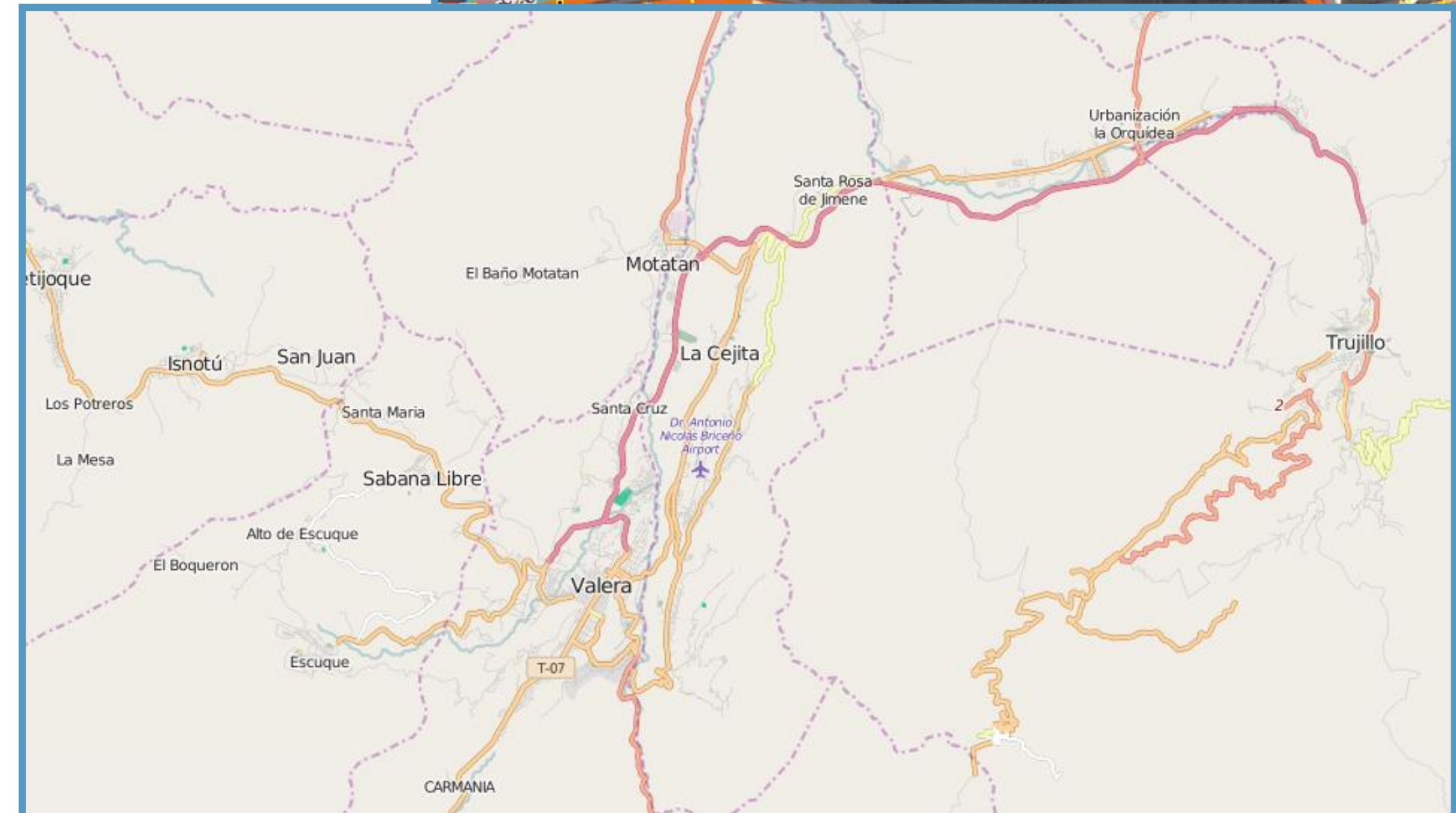
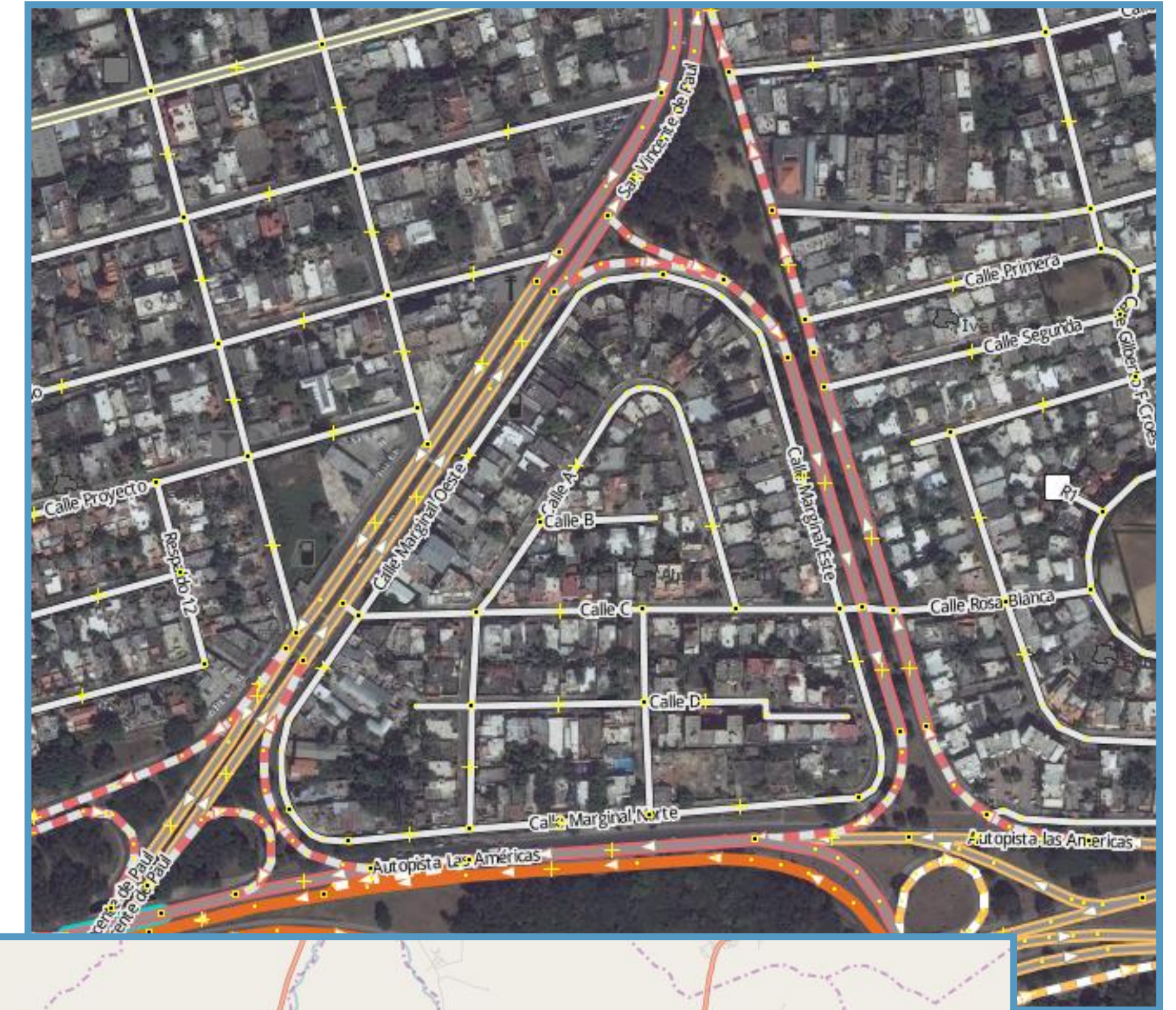
- For various reasons, some OSM editors may use too much of the same classification
- Locate these clusters because they result in poor routing and rendering
- They tend to have poor geometry as well, which should also be fixed
- Clusters of high classifications are sporadically accurate due to major population densities



High Classification Routes

Issues: Bad Classifications

- Poor classification will result in bad rendering and inefficient routing
- Look for classifications that don't make sense based on resources (imagery, GPS tracks, government websites, etc.)
- Look for gaps in classifications or abrupt shifts in classification mid-route



High Classification Routes

Issues: Complex Junctions

- Poor modeling of complex junctions often requires alignment and classification updates
- Focus on ensuring correct routing through junctions
- These alterations are highly visible and critical to the map, so accuracy is essential



High Classification Routes

Issues: Poor Alignment

- Review alignment of high classification highways
- Time constraints affect how much of a route you can align since high classification highways are typically long
- Focus on severe misalignment, i.e. 30 meters or more, if working under time constraints



High Classification Routes

Issues: Missing Highways

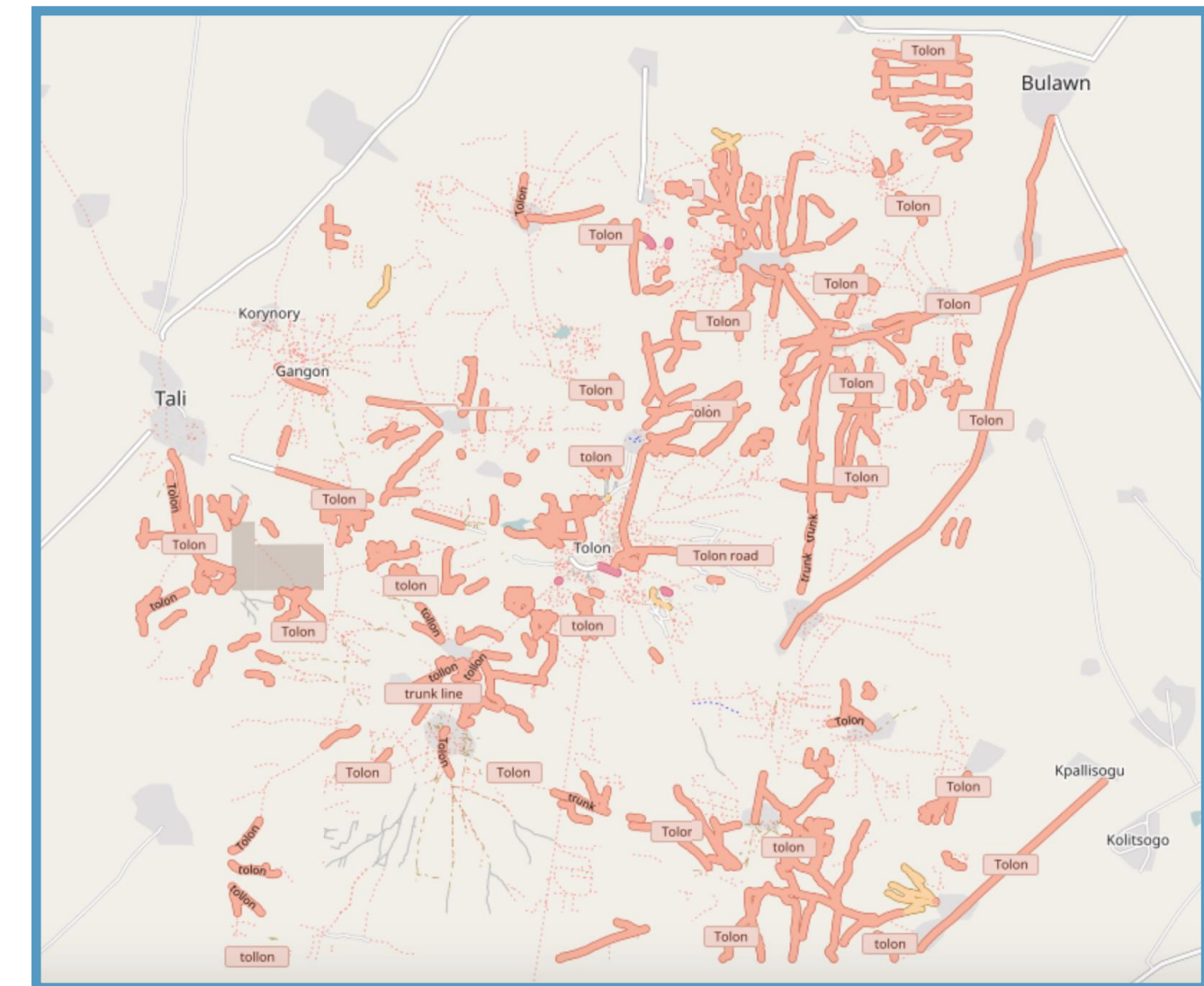
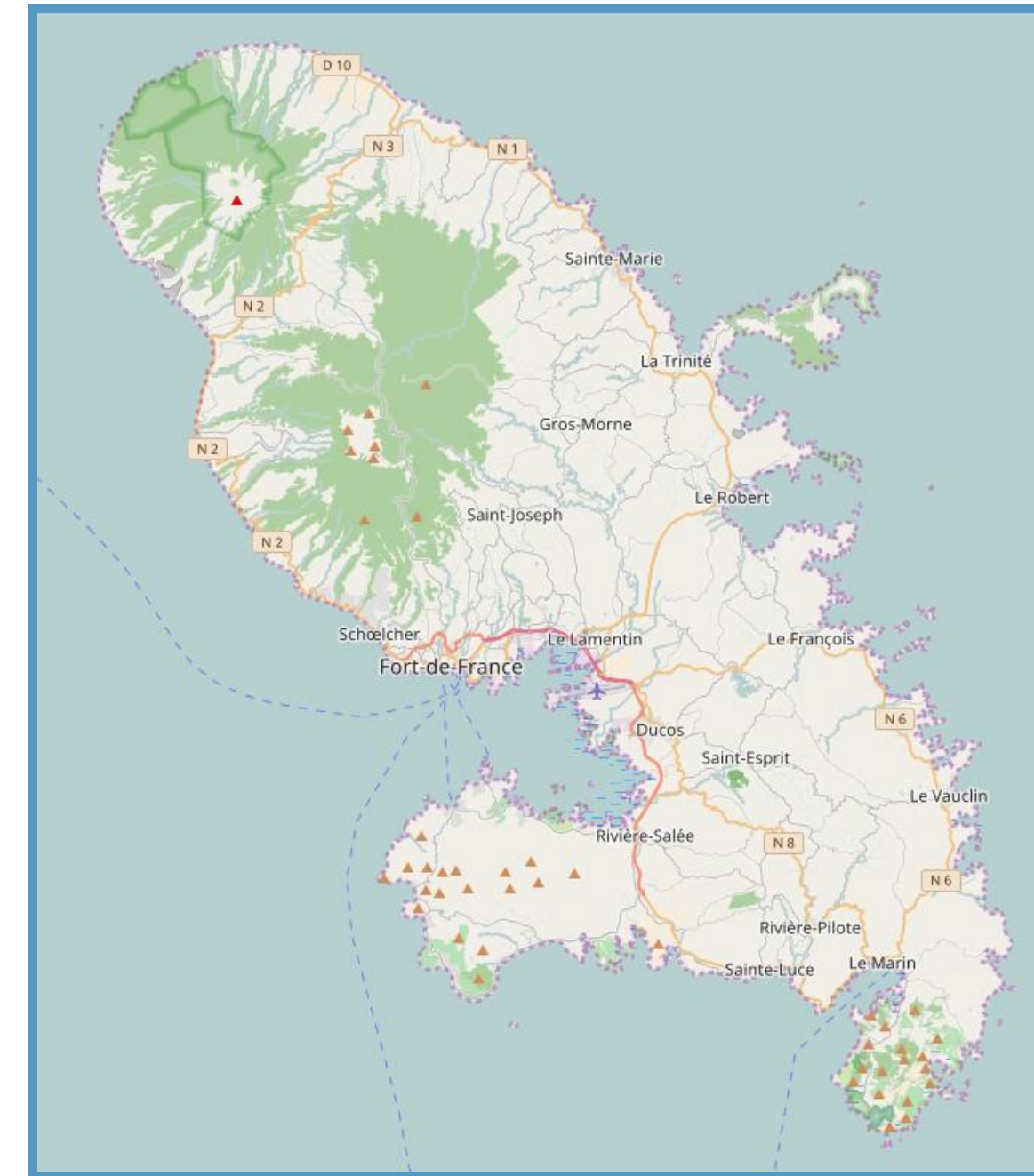
- Sometimes data sources, like GPS tracks or new imagery, reveal missing highways
- Add missing high classification highways whenever you find them
- Add newly opened construction if you can prove it is now open
- Make sure the data does not already exist



High Classification Routes

Issues: Ref Tags

- Ref tags are “reference” codes or numbers
 - Used in highway shields
 - Different from “name” tags
 - Example: “Alaska Way Viaduct” is a name but the ref tag would be “99” for SR 99
- Bad ref tags are easy to spot on OSM.org
- After downloading high classification highways, identify:
 - Sudden ref tag changes
 - Ref tag gaps
 - General errors (i.e., wrong reference number or a reference code modeled as a route relation)



High Classification Routes

Issues: Highway Names

- Note any odd or clearly wrong highway names
- Name issues negatively affect routing
- A customer navigating on to Route Nationale 1 may get a highway shield that says “RN 1” but the name might have been “Route Regionale 1,” which is clearly wrong
- Examples include:
 - “en 280 lubango namibe”
 - “bridge”
 - “RN23”



High Classification Routes

Culmination

- There are many aspects to high classification routes that need review
- Take your time to do your research and make notes of issues with high classification highways
- Some issues are more critical than others

Critical

- Bad Classifications
- Road Clusters
- Ref Tag Issues
- Missing Highways

Important

- Poor Alignment
- Complex Junction Issues
- Name Issues