



Road Insights: Field Maps App for Spatial Data Collection

Utilizing ArcGIS Field Maps Designer for Comprehensive Spatial Data Collection along the 5.1km Ayobo - Olorunda Road.

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Introduction

This project centers on utilizing the Field Map mobile app to gather spatial attributes along the Ayobo - Olorunda Road, 5.1km long and 20m wide, running from Megida, Ayobo (Lat. 6.6006°, Long. 3.2417°) through Ishefun, Olorunda (Lat. 6.5752°, Long. 3.2045°).

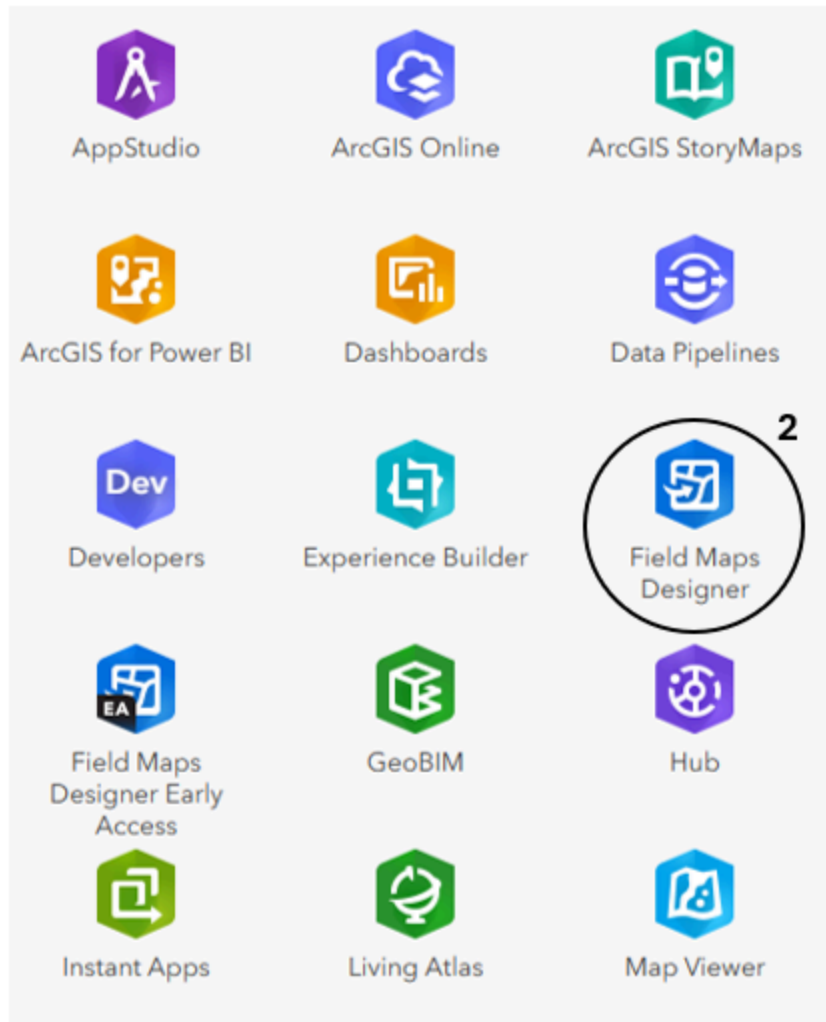


Procedure

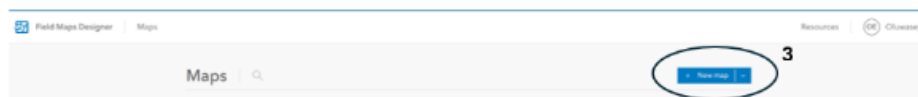
Within the ArcGIS Online platform, a point layer is created with the Field Map Designer, and this layer is accessed on the Field Map Mobile Application to collect spatial attributes of the different junctions along the Ayobo - Olorunda road.



Among the list of ArcGIS tools, select the Field Maps Designer among the ArcGIS tools

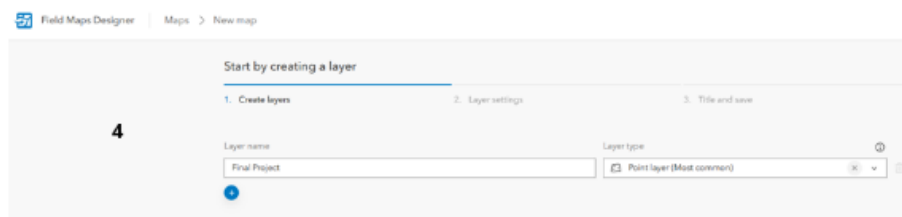


Field Maps Designer



Click **New Map** to create a new Field Map

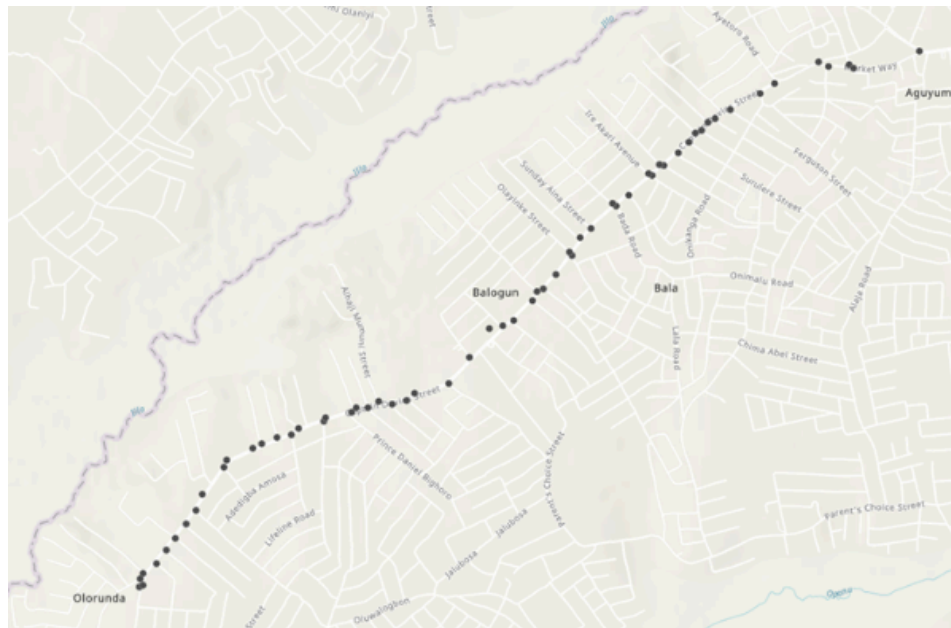
A **Point layer** is created and given a title.



Data Collection

A blank form is created. Using the Field Buttons, the form below was created and used to collect the spatial attributes along the road.

A total of 60 points collected along the route using the Field Map Mobile Application are shown in the map below



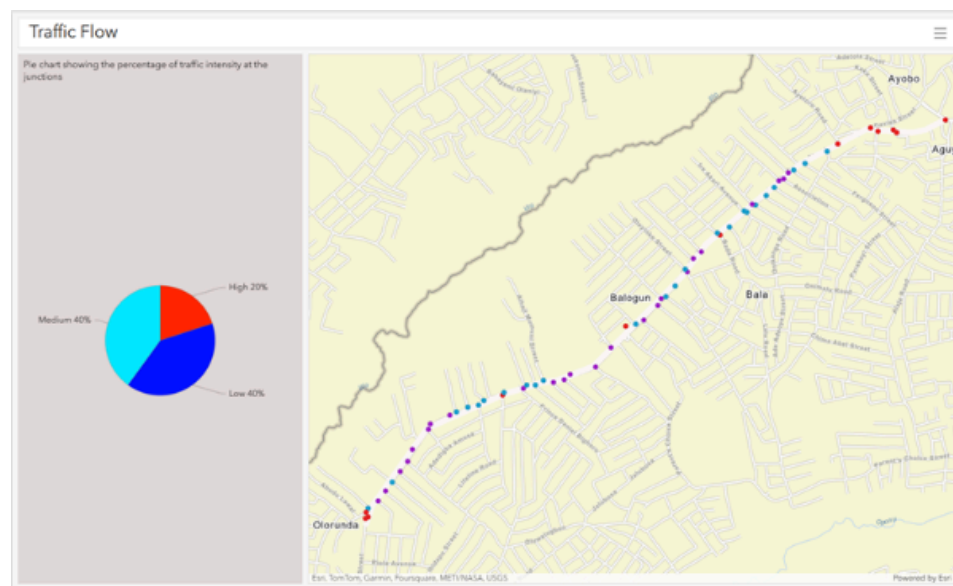
Spatial Attributes Collected

As earlier shown in the form, some of the attributes of interest obtained at each point of data collection include:

- Geographical Coordinates
- Name of the Junction
- The traffic intensity around the junction (High, Medium, Low)
- The type of junction (Intersection, Roundabout, Terminal)
- Availability of amenities (Lighting, Benches, Shelter)
- Surrounding Land Use (Institutional, Residential, Commercial, Industrial)

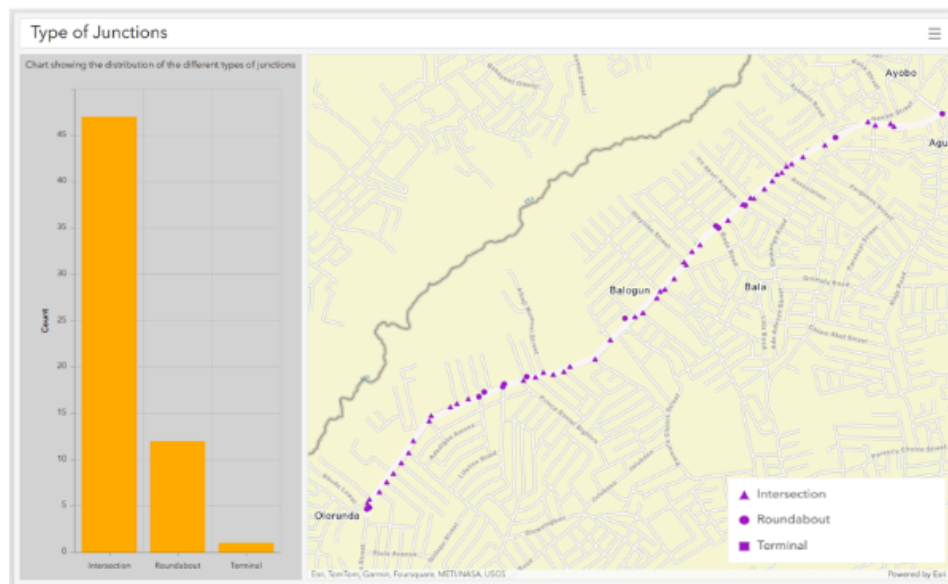
Insights

While the general traffic condition along the road is somewhat medium to low, only 20% of the junctions notably high-traffic areas, particularly towards the beginning and end of the road.



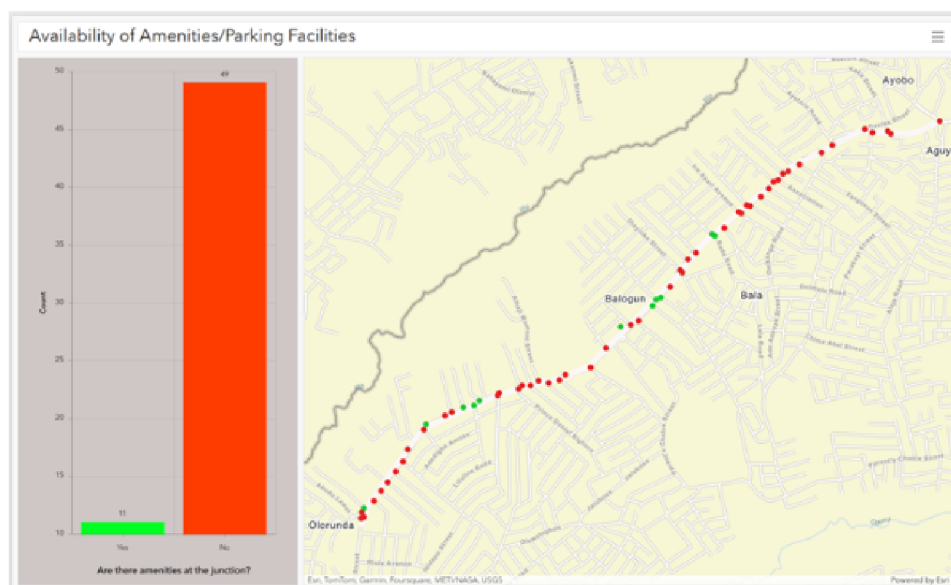
Traffic Intensity along the road

Of the 60 junctions along the route, there are 47 intersections, 12 roundabouts, and only 1 bus terminal.



47 intersections, 12 roundabout, 1 terminal

It may be necessary to review the distribution of amenities along the road as only about 18% of the junctions are completely equipped with adequate facilities to ensure the safety, security, and convenience of pedestrians, passengers, and motorists.



Conclusion

Advancements in data collection technology have revolutionized mapping enabling more efficient and comprehensive data collection. With Field Maps, this process

is further streamlined, providing real-time insights and enhancing decision-making capabilities.

References

- GIS 504, Seneca Polytechnic, Canada
- ESRI ArcGIS
- <https://secetmcs.maps.arcgis.com/apps/mapviewer/index.html?webmap=f295104041bf4195a31065ecb1c64c27rm>