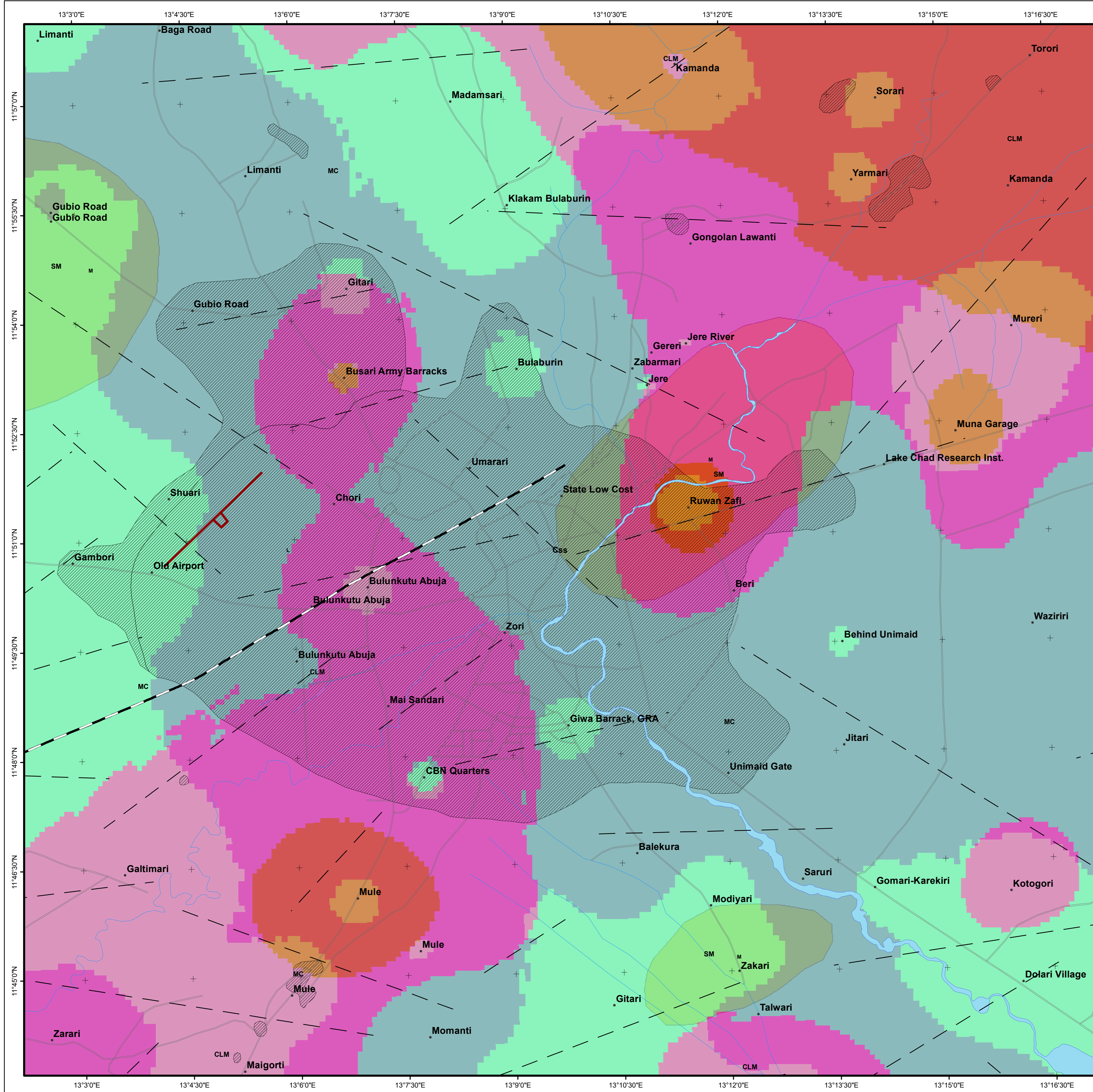


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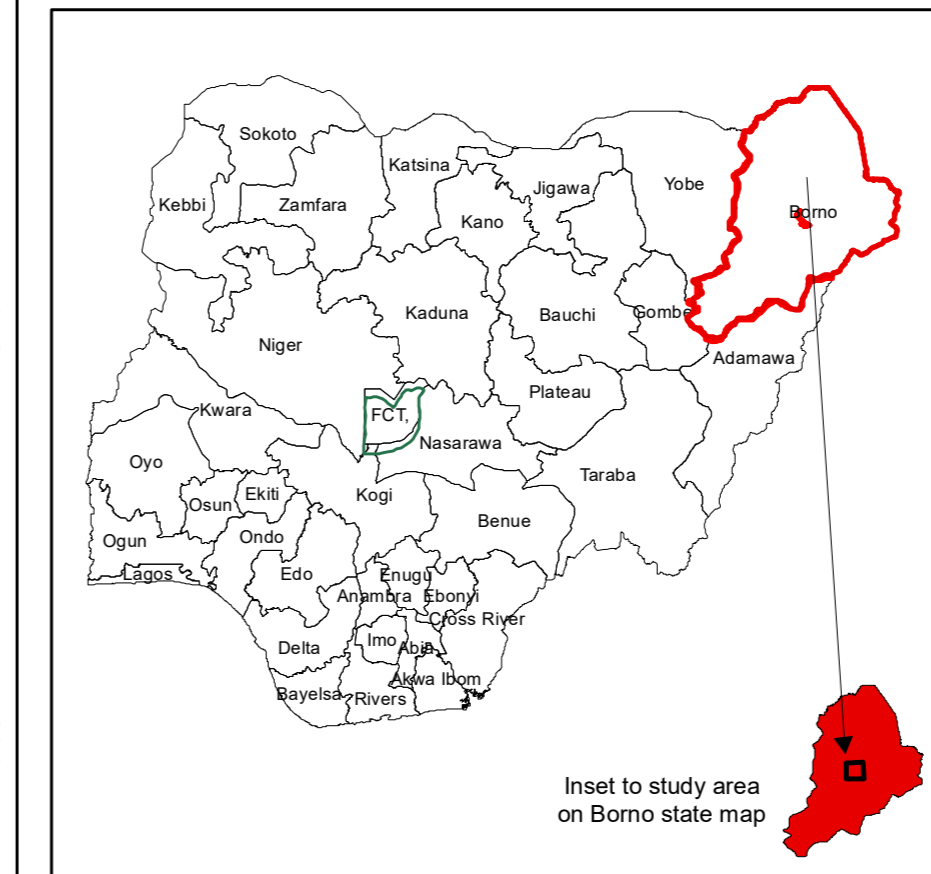
ENGINEERING GEOLOGICAL MAP OF MAIDUGURI CITY & ITS ENVIRONS



EXPLANATIONS

- Structural Trends
 - Towns
 - Run Way
 - Major Road
 - Minor Road
 - Rail Line
 - River
 - Built Up Area
- Acidity Map**
- Acidic
 - Basic
- Permeability**
- Low
 - Medium
- Bearing Capacity**
- < 150
 - 150 - 300
 - > 300
- Soil Classification**
- CLM
 - MC
 - SM
- Geology**
- Css Sands and clays { Chad formation}

INDEX TO MAP



Map History

This Cartographic Geotechnical map of Maiduguri City & its environs was produced based on field data acquired from Department of Applied and Engineering Geology, NGS A Abuja HQ.

Data collection: Supervised by Mr. Gambo Lawal

Data Processing, compilation, Cartographic Design & Reproduction: Ayodele A. Omotehinse, Alichu Alichu & Nura Adamu

Digital Processing: Supervised by Mr. H.O. Davies

Data Review: Moderated by Mr. O. Oyediji

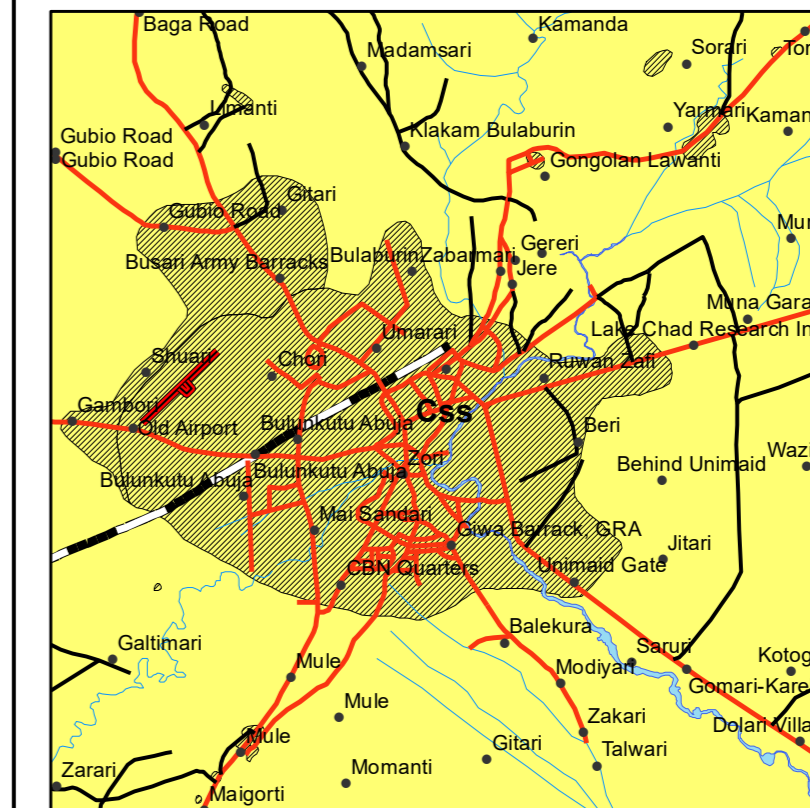
The project work was undertaken by NGS staff under the supervision of Mr. A.N. Nwogu (Ag. Director General) in 2013 and reviewed for publication in 2023.

The review team for the publication of this Geotechnical was coordinated by Mr. Iyah Robert (Director, Hydro. & Engineering Geology), assisted by Mr. Fijabi O. (DD Map production)

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ABDULRAZAQ A. GARBA P.M.D., FGS, FNMGS
Director General



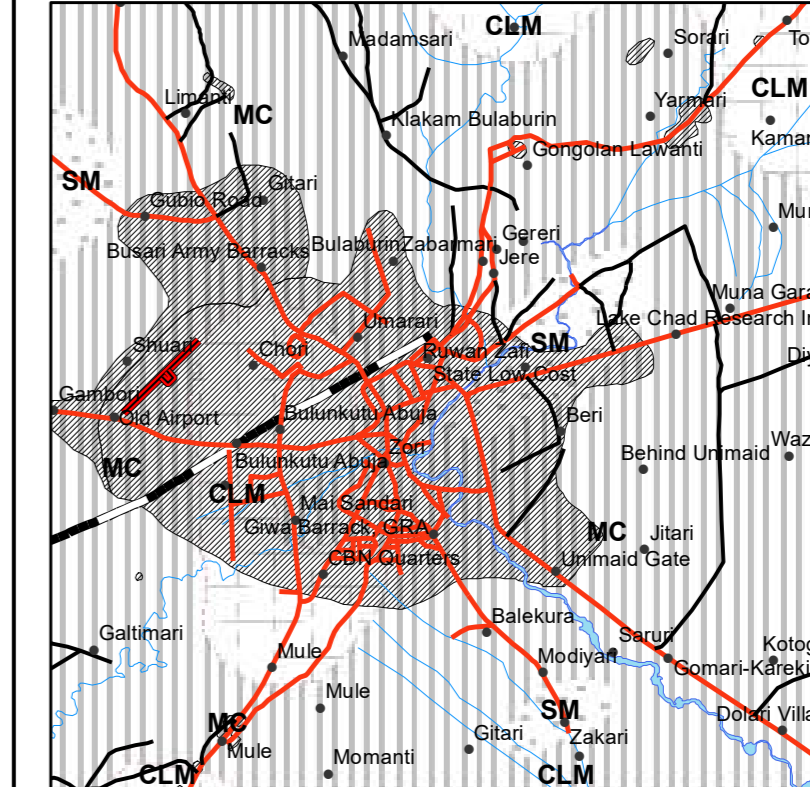
Geological Map



Geology

- Css Sands and clays (Chad formation)
- Fractures/ Faults

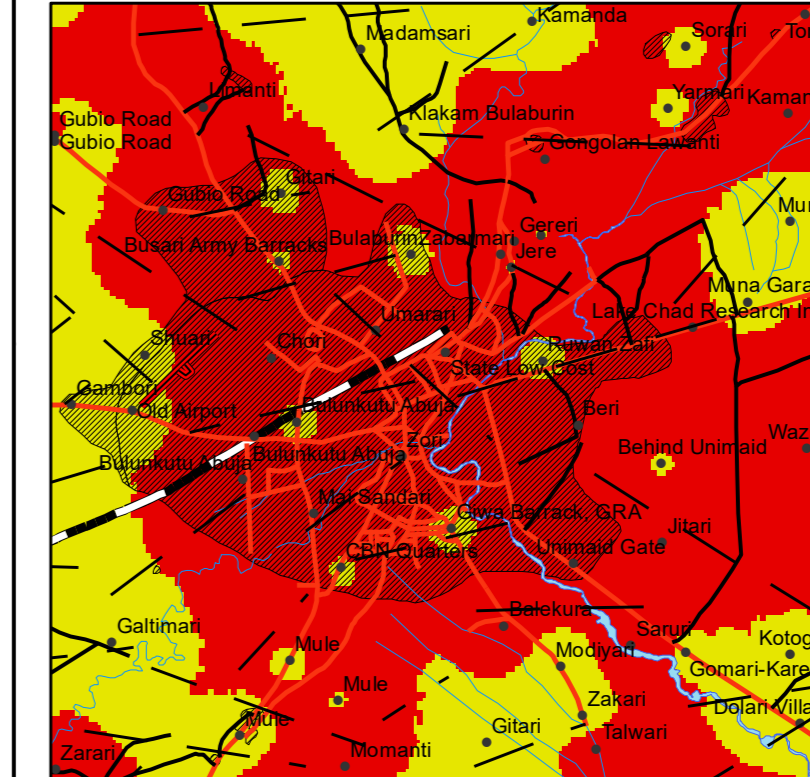
Soil Map



Soil Types & Distribution

- Clayey Silt
- Silty Sand
- Silty Clay of Low Plasticity

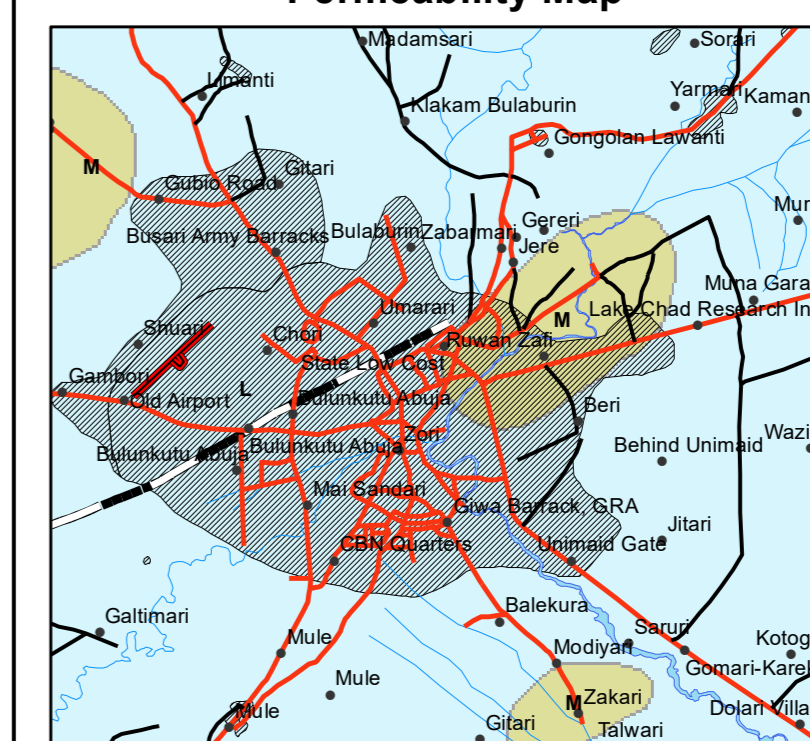
Soil Acidity Map (pH)



(Acidity) <6 or >=7 (Alkalinity)

- < 6 --- Acid soil (pH < 6)
- > 6 --- Neutral - Low Acid soils (pH 6 - 7)

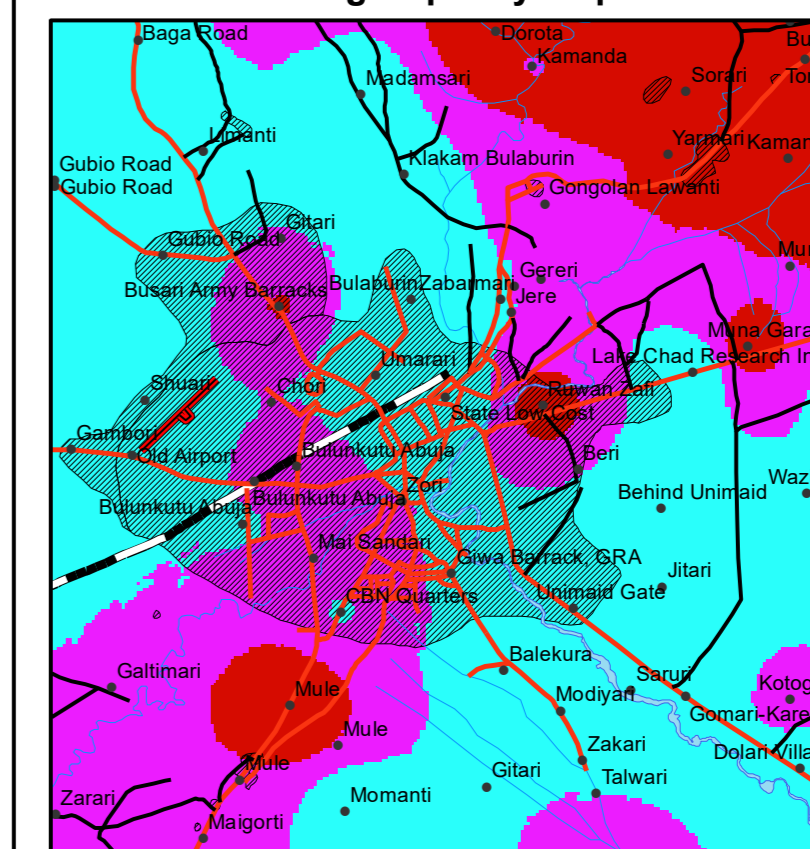
Permeability Map



Soil Permeability

- Medium permeability area
 $K = 10^{-3} - 10^{-4}$ m/sec
- Low permeability area
 $K = 10^{-5} - 10^{-7}$ m/sec

Bearing Capacity Map



Bearing Capacity

- High bearing capacity area
 $q_u > 300$ kN/m²
- Medium bearing capacity area
 300 kN/m² > $q_u > 150$ kN/m²
- Low bearing capacity area
 $q_u > 150$ kN/m²

