



## Terms of Reference – Geotechnical Survey

### Scope of Works: Detailed Geotechnical Engineering

Public Rental Board (PRB), a Commercial Statutory Authority established to provide affordable rental flats to low-income earners invites tenders from registered and reputable Geotechnical engineers to provide a fee to assess the subsurface conditions of the Proposed Lagilagi 8 units site and provide valuable information for engineering design and construction planning.

PRB intends to develop the site with the construction of a four storey building (8 flats x 2-bedroom units). The area of the proposed site is 731.8m<sup>2</sup>.

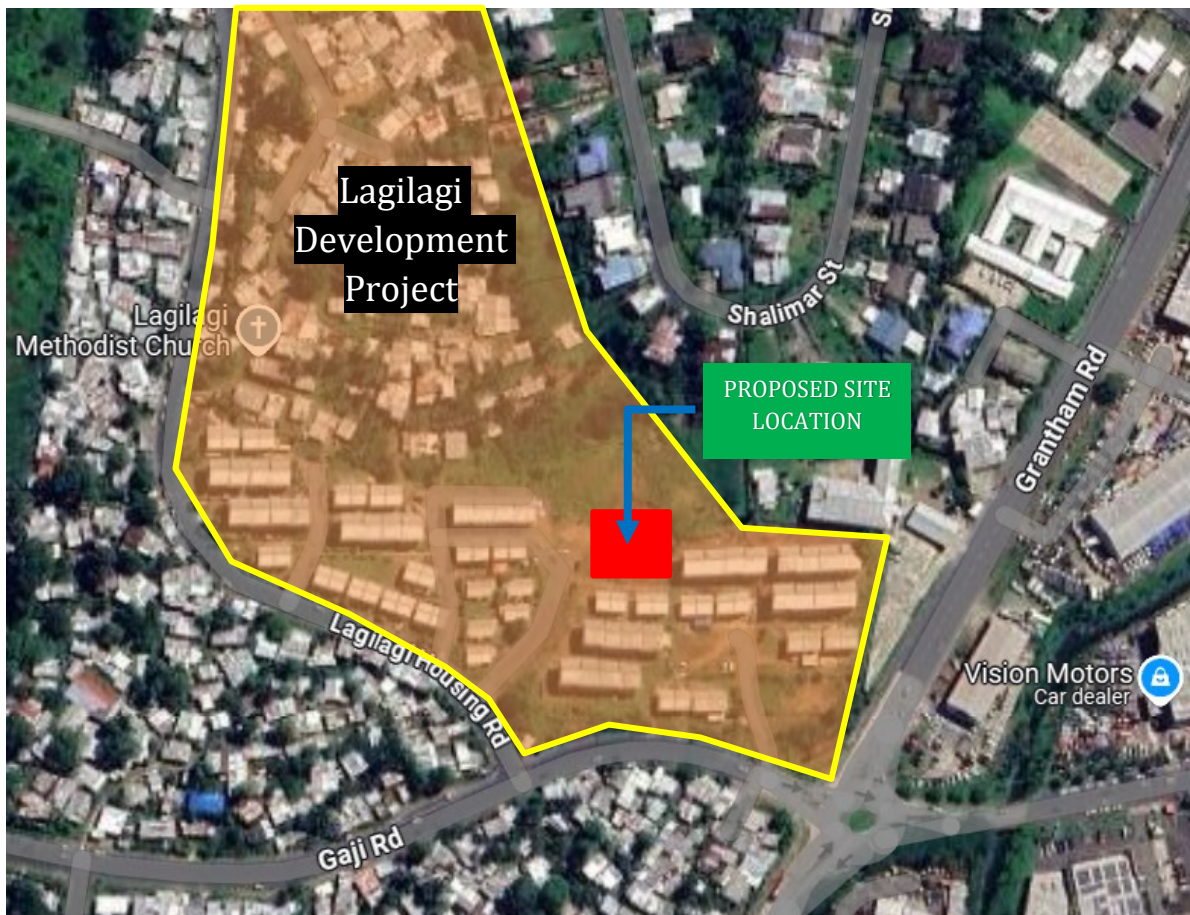


Figure 1 – Locality Plan

The design is developed taking in mind a “Smart Build” concept which target buildings to be constructed with medium to high end quality and at the most economical cost of construction that is affordable to our customers. The design has also been carefully assessed to meet all standards of the National Building Code and play an important role in enhancing PRB’s vision of providing quality low-cost rental housing that is affordable.

The Geotechnical Engineer shall provide professional engineering services for the Proposed Development at Lagilagi Estate - Gaji Road, Samabula, Fiji Islands.

The Geotechnical Engineer is expected to carry out preliminary study of the existing underground infrastructure and/or utility services prior to carrying out any site investigation work and is required to take all precautionary health and safety measures during geotechnical investigation works. Any plans or existing services information is to be obtained by the Geotechnical Engineer through the various infrastructure & utility departments directly.

### **GEOTECHNICAL INVESTIGATION & REPORTING – SCOPE OF WORKS**

The reporting work should cover, but shall not be limited to the following aspects for a detailed geotechnical investigation, testing, and reporting work:

1. Subsoil profiling from tests and inference with cross-sections across the entire site should cover sufficient profiling across proposed building platforms and the overall site to show layered soil profiles and estimated depths to bedrock. Refer attached Ground and First Floor Plans showing the various infrastructures for the proposed development.
2. All necessary testing including any test pits, boreholes with associated testing, etc. to be allowed for. Testing to be sufficient and representative for the various building platforms and overall site infrastructure. It is recommended to carry out 2 boreholes up to 10m and DCP Tests up to 5m, however the Geotechnical Engineer determines if more testing is required for sufficient decision-making data. A rate per linear meter shall be given for borehole drilling should the drilling depths increase or decrease in length. The intention is to drill boreholes to bedrock depths.
3. Subsurface ground conditions.
4. Recommended foundation systems & options, for example, shallow, raft or piled foundations. All necessary capacities, etc. shall be included.
5. All data required for design of retaining wall as necessary.
6. Total and differential settlements (if any) for the proposed structures for shallow and raft type foundations to be indicated.
7. Groundwater table/level.
8. California Bearing Ratio (CBR) values to be provided where applicable and

- for use in slab on grade and pavement design.
9. Recommended Finished Floor Level for all buildings and car park on site taking into consideration flood levels, etc.
  10. Detailed pile design with options of different pile types with potential load carrying capacity.
  11. Advice on liquefaction issues of the site.
  12. Advice on potential lateral spread of subsurface material. Also carry out detailed design on the number of piles that is required to resist lateral spreading.
  13. Construction recommendations for the site earthworks and applicable compaction criteria.
  14. Seismic design parameters for the proposed site.
  15. Any geotechnical issues encountered or inferred or any that may be potential issues during construction.

### **Conditions of Engagement: Geotechnical Engineering**

The Geotechnical Consultant shall provide a Lump Sum Price to carry out the Detailed Geotechnical Investigation/Reporting with inclusion of any rates for borehole drilling, etc. allowed for.

The Consultant shall submit rates for this assignment for each of the personnel nominated by the Consultant who shall be participating in the project. Costs/rates shall also be included for disbursements associated with this project.

The following SPECIAL TERMS & CONDITIONS shall apply and to be included in the Fee Proposal.

- Liaising and making necessary arrangements with borehole rigger.
- Liaising and making necessary arrangements with utility service providers to determine underground services.
- Taking all precautionary OHS measures during field investigations.
- A program needs to be submitted together with the Fee Proposal to indicate timelines for mobilization on site, field and laboratory testing and reporting. Please indicate a timeline to provide draft and final reports.

### **Confidentiality**

The consultants should note carefully that this project is of a highly sensitive nature and shall not discuss any aspect of this project either during the fee submission stage or subsequently with anyone other than the client and project managers.

The consultant will be required to sign a non-disclosure agreement with the client to protect the client's interests.

**Tenders shall include but not limited to the following:**

1. Consultant/ individual profiles
2. Company Registration & TIN Letter
3. A valid certificate of registration and must be a member of the panel of the surveyor's registration board.
4. Certificate of Exemption
5. Past work Experience
6. Human Resources break down
7. Liability Insurance
8. OHS certification
9. Timeline
10. Assumptions
11. Limitations
12. Fees and charges

**Tender Requirements**

1. The land surveyor firm shall be a recognized member of the Fiji Institute of Engineers (FIE). A copy of their membership certification shall be attached with the tender submission.
2. The tender submitted shall not exclude any items listed above (Please indicate clearly if required items are excluded in the fee proposal).
3. Tenders are to be marked "**Tender 19/24 Geotechnical Survey – Lagilagi Project, Suva**" and addressed to:

**The General Manager  
Public Rental Board  
PO Box 5275  
Raiwaqa.**

and all submissions shall be uploaded to our PRB website [www.prb.com.fj](http://www.prb.com.fj) Raiwaqa no later than **3.00pm on Friday 8<sup>th</sup> November 2024.**

4. **PRB reserves the right to reject any tender. The lowest or any other offer shall not necessarily be accepted. Late tender submission will be disqualified.**

