



LEJWELEPUTSWA
DISTRICT MUNICIPALITY
Office of the District Municipal Manager

Cnr. Jan Hofmeyer & Tempest Road
P.O. Box 2163
WELKOM
9460
Tel: (057) 353 3094/5/8/9
Fax: (057) 353 3382
mm@lejwe.co.za

TERMS OF REFERENCE.

THE APPOINTMENT OF THE SERVICE PROVIDER WHO WILL ASSIST THE LEJWELEPUTSWA DISTRICT MUNICIPALITY WITH THE INVESTIGATION OF THE CAUSES OF, AND REMEDIATION OF THE 'THABONG HOLE' (SUBSIDENCE).

TABLE OF CONTENTS	Page
1. Purpose	3
2. Introduction and Background	3
3. Objectives of the proposal	4
4. Scope and extend of work	4
5. Expected deliverables/outcomes	4
6. Period/Duration of project/assignment	5
7. Costing/Comprehensive budget	5
8. Evaluation Criteria	5-7
9. Special conditions	7-8
10. Payment terms	8
11. Technical Enquiries	9
12. Conclusion	9

1. PURPOSE

To appoint a service provider who will assist the Lejweleputswa District Municipality (LDM) with the investigation of the causes of, and the environmental remediation of the 'Thabong Hole' (hereinafter referred to as the Thabong Subsidence.) by performing the following investigations:

1. **Geophysical investigation**, using the geophysical methods ERT and MASW to determine the subsurface conditions; and
2. **Subsurface stability investigation**, which requires drilling to determine the characteristics of the subsurface conditions. It is proposed to include two rotary percussion boreholes as well as a rotary core borehole to determine the subsurface geology.

2. INTRODUCTION AND BACKGROUND

The subsidence occurred next to the residential houses at a stand number 17709 located in Buick Tshabalala Street in Thabong, Welkom Free State. According to the information collected from the residents, specifically from the family members of stand number 17709, before the subsidence incident occurred, the kids who were playing outside close to the subsidence around mid-October 2020, felt shaking of the ground (tremors) for a few seconds. On the 12th of January 2021, a big sound accompanied by smoke which was emitted from 2 subsidence openings that developed next to each other. The owner of the house then used soil to fill up the smaller of the two subsidences and this seemingly worked as the subsidence is currently closed. It was further reported that from that day on, the smoke and the echo sound happened sporadically (they have estimated about 10 to 12 days over the period of a month). The sound that has been produced from the hole was heard at a distance of 10 houses (>200m) away from the subsidence.

The tremors which also could be felt approximately 200 metres away happened mainly at night and were so strong that the occupants of the house in the affected stand moved out of the house fearing that it might collapse.

The Lejweleputswa District Municipality Disaster Management Centre in conjunction with the Department of Mineral Resources and other stakeholders commissioned the following 2 studies on the subsidence:

1. A gas analysis study which revealed that extremely high amounts of carbon monoxide were emitted from the subsidence; and
2. A desktop study and a geophysical test (Multichannel analysis surface waves) around the subsidence, which recommended further investigations as outlined above.

3. OBJECTIVES OF THE PROPOSAL

The objectives is to perform the following investigations:

1. Geophysical investigation, using the geophysical methods ERT and MASW to determine the subsurface conditions; and
2. Subsurface stability investigation, which requires drilling to determine the characteristics of the subsurface conditions. It is proposed to include two rotary percussion boreholes as well as a rotary core borehole to determine the subsurface geology.

4. SCOPE AND EXTEND OF WORK

4.1 The role of the Service Providers is to assist LDM by conducting 2 investigations as outlined above to investigate the cause of the subsidence and recommend remedial actions required to safely close the subsidence.

More specifically, the consultant will:

4.2 Prepare an inception report with a Work Implementation Plan that demonstrate a clear understanding of the assignment detailing:

- I. The Proposed Work Schedule with timelines and methodology
 - a. Prepare activities with guidance and input from relevant stakeholders
 - b. Enhance and finalise the plan through a process including:
 - Consultation with District Disaster Management Centre.
 - Consultation with Matjhabeng Local Municipality, Department of Mineral Resources, Harmony Mines and other stakeholders.
 - Consultation with the community living in the immediate vicinity of the subsidence.

5. EXPECTED DELIVERABLES/ OUTCOMES

- The inception report with Work Implementation Plan.
- First Draft/ Template plan
- Second Draft of plan.
- Report of meetings, exercise, significant events in the process, challenges and lesson learned.

5.1 INPUTS OF THE LDM Disaster Management Centre.

Disaster Management Centre will provide:

- i. Relevant documents that the consultant may require;
- ii. Technical comments and feedback on the outputs of the consultant;
- iii. General oversight in the roll out of the consultancy;

6. PERIOD / DURATION OF PROJECT / ASSIGNMENT

All work associated with this project in terms of the TOR requirements must be completed within a period of six (6) months from the date of contract acceptance or earlier. Proposals must include a work program, implementation to ensure that project closure is ensured by this date.

7. COSTING / COMPREHENSIVE BUDGET

In preparing the financial proposal, service providers are expected to take into account the requirements and conditions of the Terms of Reference documents. The financial proposal should list all costs associated with the project. Comprehensive budget must be provided in a separate envelope inclusive of all disbursement costs, expenses and VAT.

8. EVALUATION CRITERIA.

CONSULTANT PROFILE

8.1 COMPETENCY / EXPERTISE REQUIREMENTS / EVALUATION CRITERIA.

In-order to complete the project, the following expertise and competencies will be required from service providers submitting proposals:

8.1.1 Team Leader – A Professional Geological Engineer.

Qualifications and skills – Team Leader

- Post Graduate Degree in a relevant discipline (such Engineering Geology or equivalent qualifications);
- At least 10 years' experience in the geological and/or mining field having undertaken a variety of relevant reporting assignments including national reports, and designs;
- At least 5 years' experience leading multidisciplinary teams and coordinating with stakeholders in the public and private sectors
- Excellent analytical, interpersonal and problem-solving skills, ability to bring alternative thinking to an organization.

8.1.2 General professional experience of the experts to be used:

- S/he shall have at least a master's degree in his/her area of expertise. A PhD will be an added advantage.
- S/he shall have at least 10 years of experience in his/her area of expertise.

- Extensive experience in the use of GIS technology and data analysis (GIS mapping expert), report writing assignments, general development experience.

8.1.3 Competencies:

- A good working knowledge of international best practices in geology, mining and environmental issues;
- Ability to lead strategic planning, results-based management and reporting;
- Ability to effectively coordinate a large, multidisciplinary team of experts and consultants;
- Analytical skills, communications abilities, and teamwork abilities;
- Ability to perform under a heavy workload and tight deadlines.
- Excellent writing, editing, and oral communication;
- Ability to meet deadlines and prioritize multiple tasks; and
- Each theme and subdivision of theme is to be described, assessed and analysed following the DPSIR approach (Driving Force, Pressure, State, Impact, and Response). The DPSIR framework- has been widely adopted as a basic tool in the development of strategies for Integrated Environmental Assessment
- Demonstrable experience and knowledge of the mining and geological issues of Matjhabeng Local Municipality and/or the region.
- Proven ability to work independently and meet deadlines set by the Team Leader.
- Proficiency in English, written and spoken.

8.2 THE PROPOSAL SHOULD PROVIDE THE FOLLOWING:

- i A brief description of the firm's methodology to perform the tasks set forth in the Terms of Reference, including a proposed work plan with clear deliverables and timeframes.
- ii A brief description of the firm's organisation and an outline of recent experience on assignments of a similar nature. For each assignment, the outline should indicate, inter alia, the profiles and names of the staff provided, their qualifications, and duration of the assignment, contract amount, and firm's involvement.
- iii CV's of the proposed professional staff and the authorized representative submitting the proposal. Key information should include number of years working for the firm/entity, and degree of responsibility held in various assignments during the last ten (10) years.

The firm's current make-up in terms of Previously Disadvantaged Individuals and its black empowerment goals and objectives in general and those specific to this project to be clearly spelt out. (To be determine by project management committee (PMC) in line with scope of work)

1. Bidder understanding of the brief and the method to be employed. Outline and insight information provided in the bid document (relevance and accuracy)
2. Capability (profiles of key staff and persons to be assigned to the project).
Experience and track record in:
 - geology and/or mining;
 - Project team members – submit names and CV- with relevant experience (at least two years in Geology, Mining or Environmental Management.)
3. A proposed plan of action to achieve the objectives.

9. SPECIAL CONDITIONS OF CONTRACT

- 9.1 The LDM shall do the ongoing performance management of the Service agreement.
- 9.2 The Service Provider/s must guarantee the presence of the senior in charge of fieldwork throughout the duration of the contract. Prior to the appointment of a replacement, the LDM must approve such appointment. If the senior has to leave the project, a period of at least a month is required, in which the senior must work parallel with the next person (senior consultant with similar expertise and equal years of experience) appointed able to transfer skills and knowledge.
- 9.3 All the conditions specified in the **General Conditions of Contract (GCC)** will apply and where the conditions in the special conditions of contract contradicts the conditions in the general conditions of contract the special conditions of contract will prevail.
- 9.4 Please take note that LDM is not bound to select any of the firms submitting proposals. LDM reserves the right not to award any of the bids and not to award the contract to the lowest bidding price.
- 9.5 Bidders must score a minimum of **75%** (The minimum qualifying score that must be obtained for functionality in order for a tender to be considered further should not be generic. It should be determined separately for each tender on a case-by-case basis. The minimum qualifying score must not be prescribed so low that it may jeopardize the quality of the service required nor so high that it may be restrictive to the extent that it jeopardizes the fairness of the SCM system).
- 9.6 The proposal should include, amongst other, the following:
 - A proposed plan of action;
 - A list of references;
 - Ability to ensure continuing of staff on the project.

- 9.7** Comprehensive Curriculum Vitae (CV) of the staff who will be available for the duration of the contract must be attached. In case where bidders submitted CV's of personnel from other companies, bidders must indicate if the personnel is sub-contracted or employed full time or part time, and indicate the period of the engagement with the bidder. A signed agreement between two parties or an agreement between personnel and a company must be included with the proposal.
- 9.8** The bid proposals should be submitted with all required information containing technical information.
- 9.9** LDM will not be held responsible for any costs incurred by the bidder in the preparation, presentation and submission of the bids.
- 9.10** Travelling costs and time spent or incurred between home and office of consultants and LDM office will not be for the account of LDM.
- 9.11** Intellectual property rights will belong to LDM.

10. PAYMENT TERMS

- 10.1.** LDM undertakes to pay out in full or as per deliverables within 30 (thirty) days all valid claims for work done to its satisfaction upon presentation of a substantiated claim and the required reports stipulated in special conditions. No payment will be made where there is outstanding information/work not submitted by the Service Provider/s until that outstanding information is submitted.

11. TECHNICAL ENQUIRIES

Should you require any further information in this regard, please do not hesitate to contact:

Manager, Disaster Management: Mr Sibonda J. Nzume
Office Telephone No: (057) 352
7471,
E-mail: sbonda@lejwe.co.za

12. CONCLUSION

Interested consultant should submit their proposals based on the Terms of References outlined above.