

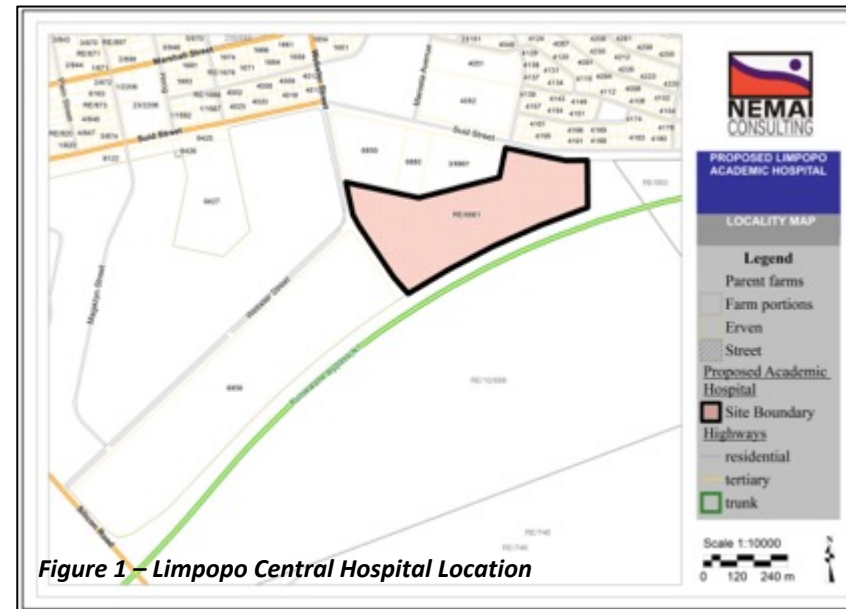
PROPOSED METHODOLOGY FOR THE PROPOSED PHASE II HERITAGE MITIGATION OF ARCHAEOLOGICAL SITES SITUATED WITHIN THE LIMPOPO CENTRAL HOSPITAL DEVELOPMENT FOOTPRINT

Consultant	NGT Infracore (Pty) Ltd
Contact Person	Nkosinathi Tomose
Tell	073 278 3317
Cell	063 708 7062
Email	nkosinathi@ngtinfracore.co.za

1.BACKGROUND

NGT Infracore applies for a Phase II Mitigation permit for the mitigation of archaeological sites on Erf 6861 of Pietersburg Extension 30 in Polokwane (*Figure 1*). The application is made in terms of Section 35 (4) of the NHRA, No. 25 of 1999 in response to the authority's Final Comment on the Phase I HIA conducted on the project and in terms of Regulation 9.2 of the Archaeological Permit Policy. The proposal is for mapping the extent of two archaeological sites situated within the development footprint, excavation, collection of archaeological material culture, analysis and destruction. The two sites are LIM-08 (stonewall enclosure) and LIM-09 (stonewall enclosure) as defined in the Phase HIA Report (Hutten, 2019). It includes assessing the extent (perimeter) and sampling of sites LIM-05, LIM-06 and LIM-07 situated immediately outside the development footprint. Site LIM-07 is situated approximately 7m from the site development footprint boundary (an ash midden measuring approximately 15m in diameter), LIM-06 is situated approximately 16m from the site development footprint boundary (an ash midden measuring approximately 25m in diameter) and LIM-05 is situated approximately 43m from the site development footprint (a stonewall enclosure measuring approximately 60m in diameter).

The current document is the methodology for conducting the Phase II Mitigation for testing and destruction of the above mentioned archaeological sites with particular focus on sites LIM-08 and LIM-09 and the high probability that LIM-07 may intersect the development footprint. LIM-05 and LIM06 are also considered based on the view that their boundary may also intersect the development footprint.



2. METHODOLOGY FOR SITES LIM-08 AND LIM-09

Sites LIM-08 (stonewall enclosure measuring approximately 90m in diameter) and LIM-09 (stonewall enclosure measuring approximately 80m in diameter) are located within the proposed development footprint (see Hutton, 2019), they are priority sites for Phase II Mitigation. The stonewall enclosures have previously been disturbed through the rehabilitation programme of the N1 and the rubbish dumping that characterises the site.

2.1. Method and Techniques to be Applied

The proposed method of investigation for the two sites involves both archaeological and non-archaeological technical methods.

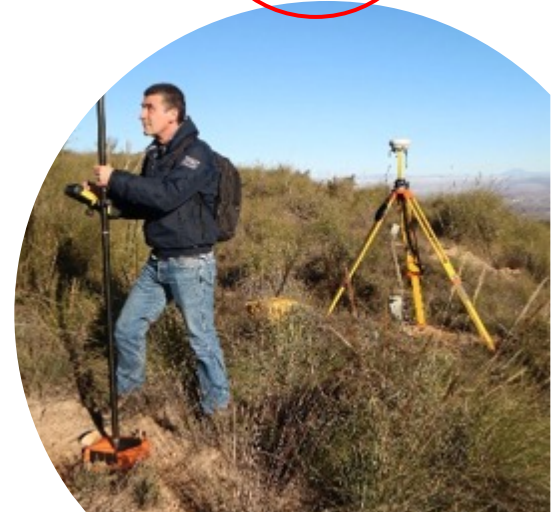
The non-archaeological method includes:

- Cutting trees and shrubs using chain saws and brush cutters for the grass to trace the extent (perimeter) of the stonewalls enclosure and expose them.

Archaeological methods include:

- Once the extent of the stonewalls is exposed from vegetation cover, clear grass along the walls using shovel spades to expose the walls to reveal their heights and width with each layer of removed soil with grass sieved using screeners to record and document any archaeological material culture that may be exposed during the site clearance as surface scatters, their type and GPS coordinates documented.
- Once the stonewall enclosure form and shape (i.e., the prehistoric from an archaeological and prehistorical architectural design perspective) are exposed, record the extent (perimeter) using Trimble R6 Rover and base GNSS receivers and use the data generated to develop sites maps and sketches which will be supported by photographic material documentation. The sketches will include the width, heights and profiles of the walls.
- After the mapping and sketch process, look at areas/sections of the stonewall enclosures that are well preserved or have the potential to yield archaeological material culture and established a datum point outside the wall perimeter and linear grids with 1x1m square (and internal sub-grids within each square meter of 50cmx50cm) on either side of the grid from wall to wall which will each be excavated at 5cm and 10cm intervals using archaeological trowels, shovels and brushes in efforts to test their archaeological integrity of each grid (e.g., *Figure 3, Section 2.2*). The excavations process will continue up to a depth to which the disturbed layer ends and there is certainty that there are no archaeological resources/ or materials on the ground excavated. Test trenches will also be established on the external perimeter of each site for further sampling using the shovel spade testing method; similarly to the internal trenches, all material will be recorded and documented with their locality and depth measured. The material recovered at each square will be documented in terms of its depth (using Trimble R6 Rover and base GNSS) (e.g., *Figure 2*), material type and form, GPS coordinates taken and given a description of the condition or status of preservation, begged in conservation appropriate begs and clearly labelled for lab analysis at the later stage. Each grid or square allocated a site recording form to capture all the data recovered. The soil excavated in each grid square will be sieved/screened to recover any archaeological material culture that could be missed during excavation (i.e., not easily spotted during the excavation process).
- The combination of material culture recovered and the type of the stonewalls (in shape and form) is crucial for a comparative analysis of the site to sites of similar type and material culture and the assessment of the uniqueness of the site compared to similar sites from a research and scientific perspective
- The data will also be crucial to ascribing meaning and significance to the sites within the broader Iron Age chronology within the Limpopo Province and South Africa in general
- The lab analysis process will entail allocating the use and association of the material culture to a particular cultural group or cluster within the archaeological record of the receiving environment.
- The objective of the prescribed method is to capture X and Y data records about the site and develop accurate data that can be interpreted and communicated for scientific research purposes.

*Figure 2-
Trimble*

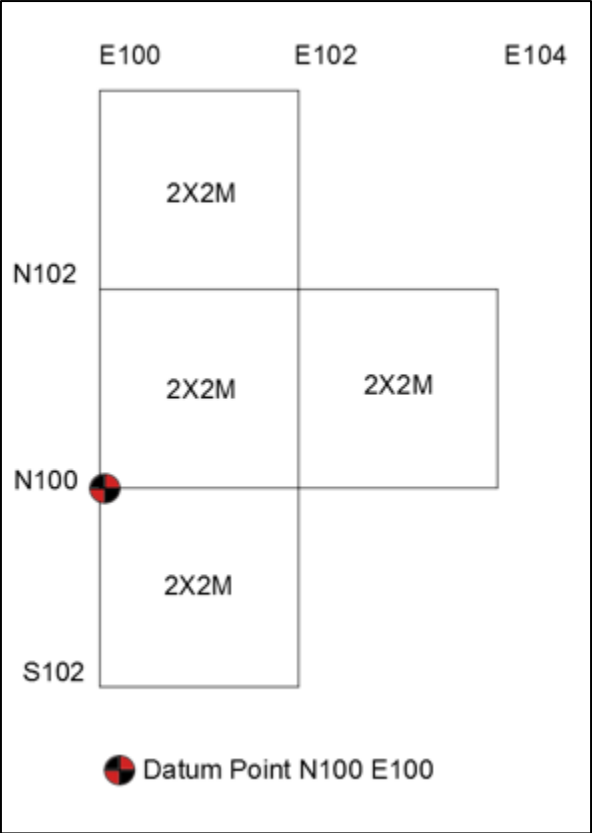


2.2. Archaeological Grid and Datum Objectives

The reason for setting up a datum and an archaeological grid to collect and document the recovered archaeological material is because once the sites have been excavated, the sites will no longer exist and proper mapping and documentation is required prior to commencement of excavation activities. It is therefore the requirement that archaeologists record the context of all material located on the site (*Figure 3*). To ensure post excavation preservation of the location of the material culture recovered during the excavation process, a grid should be developed to record and map the context of the material within the site (Brauer, 2006)

The site datum point on the other hand is marked at a fixed point of elevation near the site, in the case of the Limpopo Central Hospital targeted sites datum will be developed outside the perimeter of each stonewall enclosure or midden for establishing X and Y axes intersecting at the site datum point and develop a rectangular grid is superimposed over the entire site. Each of the developed grid square will be marked on a map and then on the site. Each grid will be assigned a unique identifier number within the entire grid system

All the material uncovered during the excavation and their locations will be recorded in the appropriate grid square. The process is to assist with interpretation of the data/objects recovered during the excavation and to use the maps and data recorded to make inferences about past events and human activities that took place on the site. This is in addition to the process of documenting and recording the site extent as explained in Section 2.1 above.



*Figure 3 –
Example of grid*

3. METHOD FOR SITES LIM 06 AND LIM-07

- The primary focus of sites LIM-06 and LIM-07 is to determine the perimeter/extent of the sites of the proposed Limpopo Central Hospital site development footprint. To assess and determine these sites' boundaries the following **non-archaeological method** will be undertaken
- Cutting trees and shrubs using chain saws and brush cutters for the grass to trace the extent (perimeter) of LIM-06 and LIM-07 (ash middens).
- For sites LIM-06 and LIM-07 the soil colouration technique will be applied to assess and determine the boundaries of each site. Based on experience, soil colouration of ash midden tends to be greyish in colour with vitrified particles of burnt glass or clay in addition to other material culture often found in middens like bones, pottery, and iron age implements.
- In the case that either one of the site boundaries does not overlap the development footprint boundary and with a buffer of more than 10m no further investigation will be undertaken to avoid the sites and treat them as a No-Go-Area and demarcated from the rest of construction activities.
- In case either of the sites (e.g., LIM-06 and LIM-07) intersects or overlaps the development footprint, a detailed investigation will take place using methods and techniques applied in mitigating of sites LIM-08 and LIM-09.

4. CONCLUSIONS

In conclusion, NGT Infracore will follow all necessary procedures to record and document the site and associated archaeological finding as per the proposed methodology. It will also catalogue and furnish the Polokwane Museum with clearly labelled and packaged data, maps and sketches of the sites and the trenches established, photographic material, field notes and the final Phase II Mitigation report and permit to be issued by SAHRA on the project.

5. REFERENCE LIST

- Hutton, M. 2019. Proposed Development of the Limpopo Central Hospital on the Remaining Extent of Erf 6861 – Extension 30 In Polokwane In the Limpopo Province. PGS Heritage SAHRIS Published Report
- Brauer, G. 2006. Gridding An Archaeological Site Center for Archaeology, Office of Social Studies Baltimore County Public Schools, Towson, Maryland

