

PROPOSED EXPANSION OF EXISTING SOLAR PLANT, UNIVERSITY OF THE FREE STATE,
BLOEMFONTEIN, FREE STATE PROVINCE

NOTIFICATION OF INTENT TO DEVELOP

Prepared for:

FCE Consulting Engineers

39 Brebner Street

Westdene

Bloemfontein

9301

Contact Person: Coenie van der Merwe

051-403 8596

082 560 0429

Prepared by:

Loudine Philip

Heritage Consultant

ASAPA No.187 – CRM-accredited

Contact details:

078 448 9307

LoudineP@gmail.com

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NOTIFICATION OF INTENT TO DEVELOP

Section 38 of the National Heritage Resources Act, No 25 of 1999

1. PROPERTY DETAILS	
Name of Property	University of the Free State (Main Campus)
Street address or location	Cnr of Nelson Mandela Drive and Koos van der Walt Avenue
Erf or Farm Number	Erf 18329
Coordinates	29° 6'19.08"S; 26°10'23.78"E
Town or District	Bloemfontein
Municipality	Mangaung
Extent of development	2 Ha
Predominant land use/s of surrounding properties	The intended expansion of the existing solar plant is situated in an area of the main campus of the University of the Free State (directly north of the sports grounds) that was previously utilised for agricultural training purposes.

2. OWNER OF THE PROPERTY	
Institution	University of the Free State
Contact person	Nicolaas Esterhuysen, Director, University Estates: Engineering Services
Postal address	PO Box 339, Bloemfontein
Physical address	Main Campus, University of the Free State, Bloemfontein
Telephone	051 4019279
Fax	
Cell	0834432694
Email	EsterhuysenGN@ufs.ac.za

3. DEVELOPMENT DETAILS			
	National Heritage Resources Act, No 25 of 1999 Section 38(1) Activities/Triggers		Description
<input type="checkbox"/>	a.	Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.	N/A
<input type="checkbox"/>	b.	Construction of a bridge or similar structure exceeding 50m in length.	N/A

	c.	Any development or activity that will change the character of the site:		
	<input checked="" type="checkbox"/>	i.	Exceeding 5 000m ² in extent;	The proposed expansion of the solar plant area is approximately 2ha in size
	<input type="checkbox"/>	ii.	Involving three or more existing erven or subdivisions thereof;	N/A
	<input type="checkbox"/>	iii.	Involving three or more erven or divisions thereof which have been consolidated with the past five years.	N/A
<input type="checkbox"/>	d.	Rezoning of a site exceeding 10 000m ²		N/A

Description on how the proposed development will change the character of the site:

Change from vacant, unbuilt area, to a solar plant.

Full description of the nature and extent of the proposed development activity including its potential impacts:

The footprint of the development is small compared to the remaining open space of the area in which it is situated. The solar panels are not high and do not create a visual barrier. A gravel road separates the solar panel area from the sports grounds on its southern side. On the eastern side is an existing solar plant, also 1Ha in size. The northern, eastern, and western areas are mainly unbuilt and still used for agricultural (training) purposes.



Figure 1: Footprint of proposed development area - it includes the existing solar plant on the eastern side

4. ANTICIPATED IMPACTS ON HERITAGE RESOURCES

Historically, the proposed area for the solar plants has been unbuilt and utilised for training activities for agricultural purposes. Although it is currently covered in a dense grass layer (Image 2), it has been ploughed in the past (Image 3). Exposed areas within the development footprint are sterile in terms of both cultural material and any stones or rocky areas.



Figure 2: Image of development area dated 1 June 2022

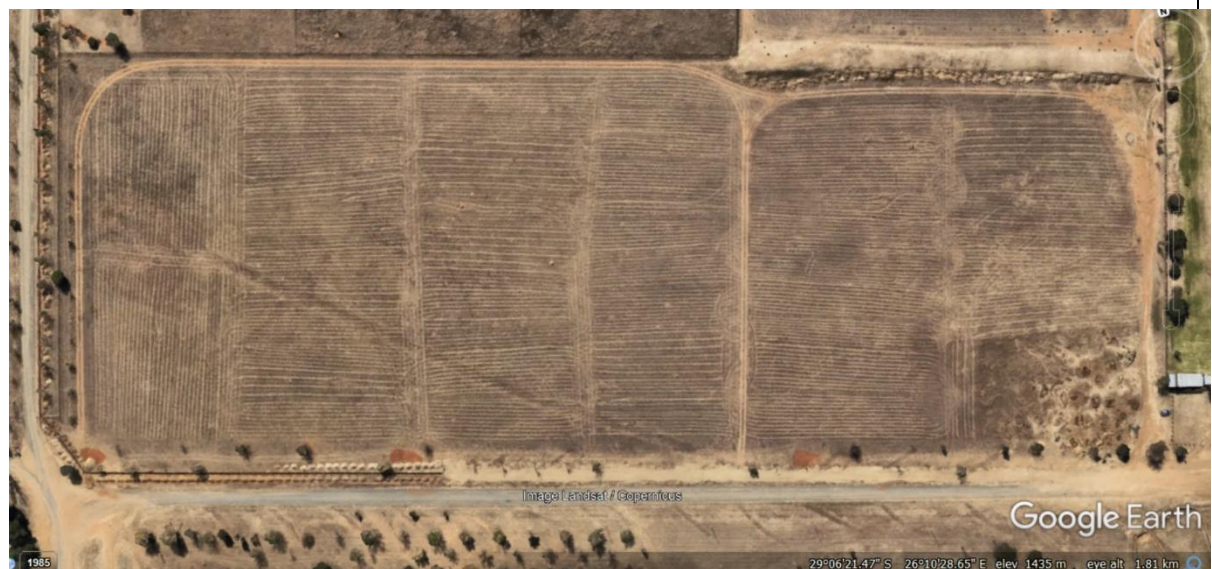


Figure 3: Google Earth image dating to 1985 of the proposed area of the new solar plants. The block on the right is the exact footprint of an existing solar plant whereas the two new plants will fit into the left-side block.

The development area is, however, in a **Red Zone palaeontological area**, but the nature of the development is such that it will not penetrate deep enough to go beyond already disturbed soil. The technical details as provided by the construction company (see Appendix D) are as follows:

*'The Solar array consists of 30 tables, each with 20 * 0,45m*0,45m*0,45m concrete blocks. The method that will be used to cast these blocks, includes the usage of prefabricated 300mm *75mm lip channel steel boxes, which is designed exactly according to the frame design from the supplier. The ten boxes that makes up one table, will be aligned according to the surveyor pegs, and then levelled in order to form a table that follows the natural angle of the ground.*

The excavation on each block will approximately be 200-300mm below the ground level, but this will depend upon the alignment according to the natural level of the ground.'

Description and nature of impacts on any existing heritage resources:

N/A	Places, buildings, structures, and equipment of cultural significance
N/A	Places to which oral traditions are attached or which are associated with living heritage.
N/A	Historical settlements and townscapes
N/A	Geological resources of scientific or cultural importance
N/A	Archaeological resources, including archaeological sites, material, rock art, & battlefields
N/A	Palaeontological resources (See comment above)
N/A	Graves and burial grounds
N/A	Sites of significance relating to the history of slavery in South Africa
N/A	Other heritage resources

Describe elements of the proposed development site that could be deemed to be heritage resources: NONE

Description of impacts on heritage resources on the proposed development site or in its immediate vicinity: NONE

Summary of anticipated impacts on heritage resources:

No artefacts, structures or any material of historical or archaeological importance are on the site or are expected to be found during the construction phase. The construction method for this particular kind of solar plant is not highly invasive and will go no deeper than the already disturbed layer of soil from previous agricultural practices. The plant is not visible from any of the historical buildings on campus and will not have an impact on that either.

5. ILLUSTRATIVE MATERIAL

Where applicable, illustrative material has been included with the text. In addition, the following has been added as appendixes:

Appendix A: Location information (1:50 000 map of the area with an enlarged section of the development area.

Appendix B: Google images of footprint of development

Appendix C: Technical drawing of solar plants

Appendix D: Technical details as supplied by construction company

6. RECOMMENDATION

In your opinion, do you believe a heritage impact assessment is required? ☐ Yes ☒ No

Recommended by:

Name: Loudine Philip

Capacity: Heritage practitioner (archaeology & built environment)

Signed: 

Date: 27 June 2022

APPENDIX A

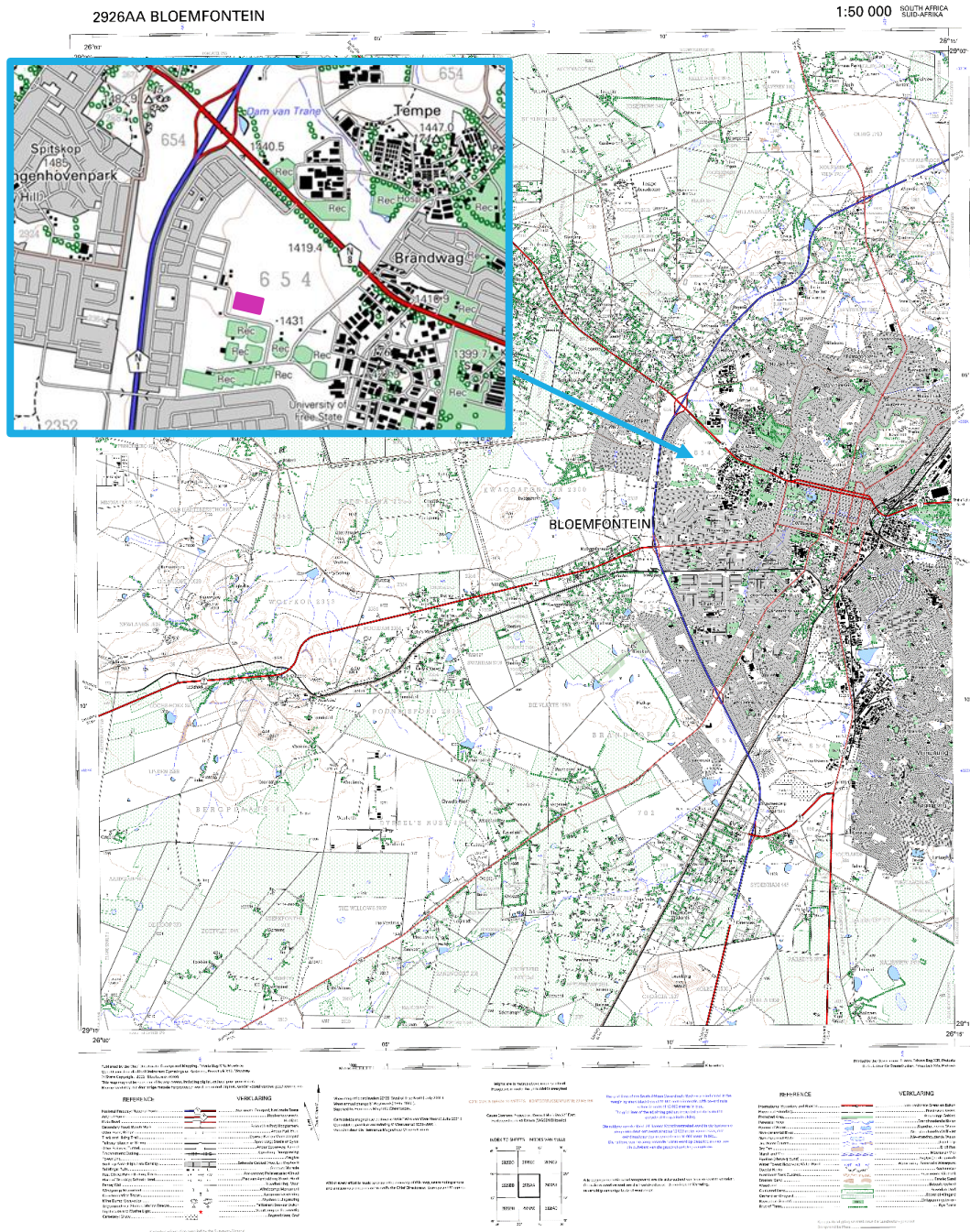


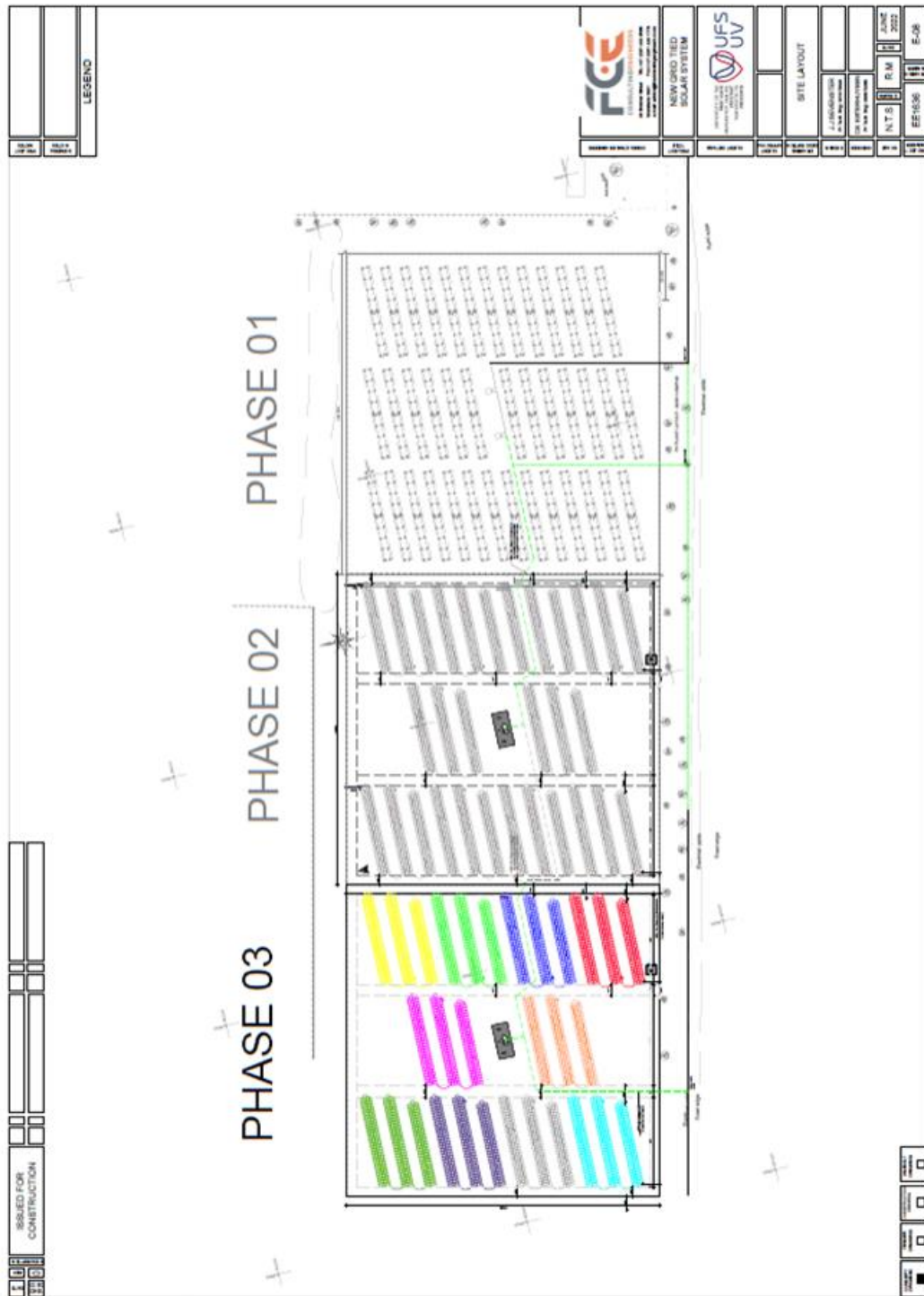
Figure 4: Pink block in insert indicates position and footprint of the new solar plants

Google image of footprint of the two new solar plants



APPENDIX C

Technical drawing of proposed solar plant extension (Phases 2 & 3)



APPENDIX D

Technical details



RWK ELECTRICAL

CONTRACTORS & MAINTENANCE

FCE CONSULTING ENGINEERS

Date: June 8, 2022

39 Brebner Street,
Westdene
Bloemfontein
9301

RE: 84812-801 GRID TIED SOLAR INSTALLATION FOOTINGS

To Whom It May Concern:

The Solar array consists of 30 tables, each with 20 * 0,45m*0,45m*0,45m concrete blocks.

The method that will be used to cast these blocks, includes the usage of prefabricated 300mm *75mm lip channel steel boxes, that is designed exactly according to the frame design from the supplier. The ten boxes that makes up one table, will be aligned according to the surveyor pegs, and then levelled in order to form a table that follows the natural angle of the ground.

The excavation on each block will approximately be 200-300mm below the ground level, but this will depend upon the alignment according to the natural level of the ground.

For and behalf of RWK Electrical (PTY) Ltd

Ryno van der Westhuizen
CEO



28 Atherstone Str, East End, BFN.
9301 (Head Office)

PO BOX 28033, Danhof, BFN, 9310

REG: 2016 / 097 793 / 07

Directors: R v/d Westhuizen
HC Koekemoer



Office: +27 51 492 4754



www.rwkelectrical.com



Email: info@rwkelectrical.com