

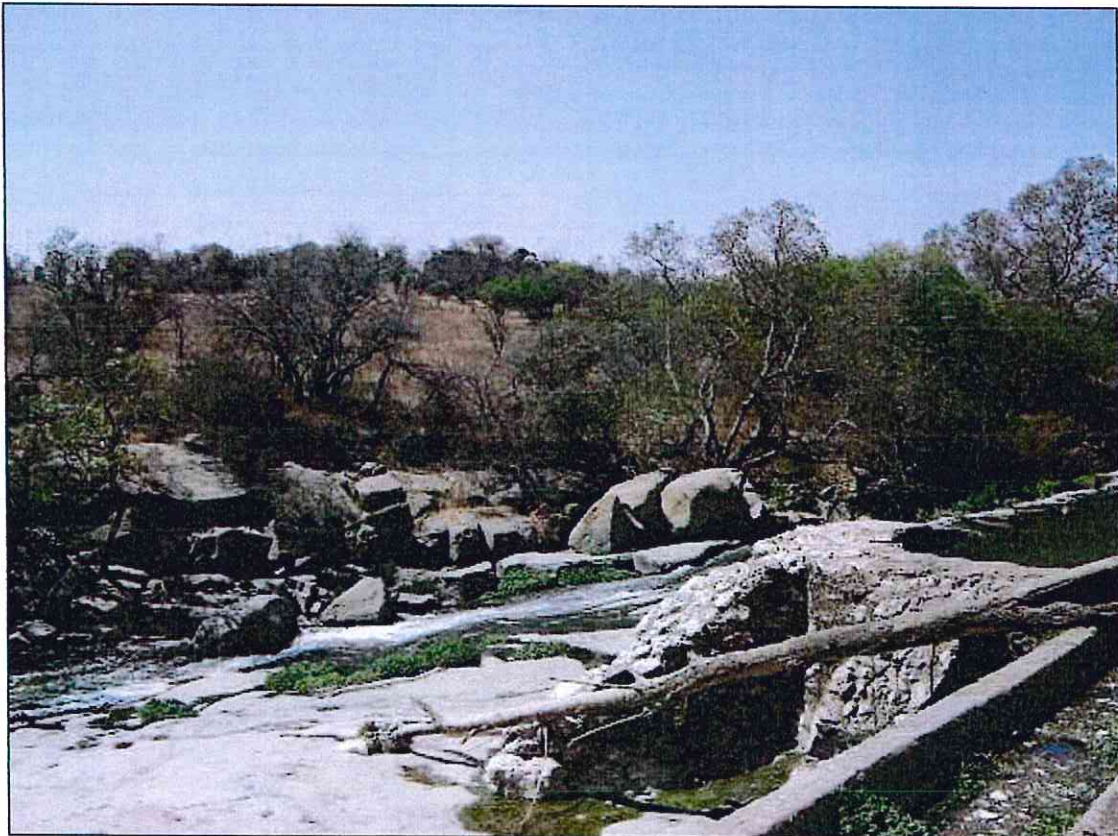


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**LEVEL 2 (HERITAGE SCOPING) REVISED FINAL  
REPORT: PROPOSED NORTHERN GOLF COURSES  
PROJECT (MIA'S FARM), JOHANNESBURG**



**SUBMITTED TO:**  
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Strategic Environmental Focus  
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**DATE OF SUBMISSION:**  
19 June 2006



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## **REVISED FINAL LEVEL 2 (HERITAGE SCOPING) REPORT: PROPOSED NORTHERN GOLF COURSES PROJECT (MIA'S FARM), JOHANNESBURG**

**SUBMITTED TO: Betty Mdala, Strategic Environmental Focus, Pretoria**

**DATE OF SUBMISSION: 19 June 2006**

### **EXECUTIVE SUMMARY**

This report fulfils the requirements for the Level 2 (scoping) phase of a Heritage Impact Assessment (HIA) as provided for in the National Heritage Resources Act (Act 25 of 1999). In this case, a

- Heritage scoping study was conducted as part of the broader Environmental Scoping Report.

The aim of the scoping investigation was to analyse heritage issues and how to manage them within the context of the proposed development. The objectives were to assess heritage significance (involving site inspections and basic desktop and archival research), to identify the need for further detailed inputs by heritage specialists, to review the general compatibility of the development proposals with heritage policy and to assess the acceptability of the proposed development from a heritage perspective. The result of this investigation is a heritage scoping report.

The previous scoping report submitted by Cultmatrix called for the preservation of all buildings on the farmstead. Through meetings with the developers and successive interaction it was agreed to modify these recommendations to provide for the preservation of the most significant buildings, the demolition of the remaining buildings and adaptations to the layout of the development affecting the farmstead to provide for the preservation of significant landscape patterns.

Based on what was found and its evaluation, it is recommended that the proposed development can continue in the area, on condition of acceptance of the following recommendations:

- Acknowledging inputs through forthcoming public participation process (also for identifying any intangible heritage values);
- Identifying and documenting intangible heritage values;
- Documentation of heritage sites that merit conservation and incorporation into the design and layout of the proposed development (plans, photos, site plans, additional background research);
- Documentation of heritage sites that can be demolished;
- The above plus the scoping report to be submitted as a full HIA report to SAHRA for authorisation purposes;
- Relocation of the cemetery;
- Compilation of Conservation Management Plan to enable rehabilitation, adaptation and new used of conserved heritage resources.

Heritage sites that merit conservation and incorporation into the layout and design of the proposed development are the following (refer to Figure 8):

- The following buildings of the old Waterval farmstead, which has high heritage significance due to its association with the Mia family and the Waterval Islamic Institute: original cottage (building 1a), reservoir tower (1d), girls' compound (6a), original cowshed (4a) and two store buildings (5a and 5di);
- A link between the old Waterval farmstead and the Jukskei River as a green zone;
- Significant elements of the historic irrigation system (furrows, dams, weirs), which has created artificial ecosystems that are habitat to various animal and plant species;
- Old roads and tree lanes, which give structure to the landscape and are visible landmarks;
- The rapids in the Jukskei River that gave the farm its name.




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Heritage sites that can possibly not be incorporated into the layout of the proposed development and hence must be relocated are:

- A large cemetery near the north-western corner of the development area

Heritage sites that have low conservation value and can be removed after documentation where appropriate are:

- Remaining buildings on the farmstead;
- Ruins of cottages (the area east of the N 1);
- All other ruins and foundations;
- The old sewage treatment plant.



**R C DE JONG**  
Principal Member: Cultmatrix cc

## PART 1: REPORT ON PROJECT EXECUTION

The structure of this report is based on:

- SOUTH AFRICAN HERITAGE RESOURCES AGENCY, Heritage Impact Assessment: Notification to SAHRA of intent to develop (form)
- DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING, PROVINCIAL GOVERNMENT OF THE WESTERN CAPE, 2005, Guideline for involving heritage specialists in EIA processes (document)
- DEPARTMENT OF ENVIRONMENT AFFAIRS AND TOURISM, Integrated Environmental Management Guidelines
- Best-practice HIA reports submitted by Cultmatrix and other heritage consultants

### 1.1 Background

#### 1.1.1 General

The broader study entails the required environmental scoping and impact assessment investigations for the development of the Northern Golf Courses Project, located on portions of the historic farm Waterval 5 IR (also known as *Mia's Farm*, named after the Mia family who are its co-owners and also users) in the Midrand area. Annexure 2 contains maps indicating the location of the proposed development.

This is an area with a long history of human use and occupation, initiated by Stone and Iron Age communities and culminating in permanent colonial settlement in the 1850s. It includes a range of heritage resources as defined in the *National Heritage Resources Act (Act 25 of 1999)*:

- Places, buildings and structures and equipment of cultural significance;
- Places to which oral traditions are attached or that are associated with living heritage (ceremonies, festivals, economic use etc);
- Historical settlements and townscapes;
- Landscapes and natural features of cultural significance;
- Geological sites of scientific or cultural importance;
- Graves and burial grounds;
- Sites related to the history of labour.

This project entails the development of a golf estate with two private golf courses (on land west of the N 1) and a public golf course (on land east of the N 1).

Another part of the development of Mia's farm is commercial and retail facilities, which is apparently dealt with through a separate EIA process.

The proposed Gautrain will run through the Mia's farmland east of the N 1, and the route for this project has already been through the EIA process.

Strategic Environmental Focus (SEF) appointed Cultmatrix cc as an independent heritage consultant to conduct a strategic assessment (heritage scoping) of places, buildings, objects and structures of cultural significance found within the boundaries of the area that is to be impacted upon by the development.

#### 1.1.2 Terms of reference and approach

The investigation consisted of conducting a Level 2 investigation of the site in accordance with the requirements of Section 38(3) of the National Heritage Resources Act (Act 25 of 1999).

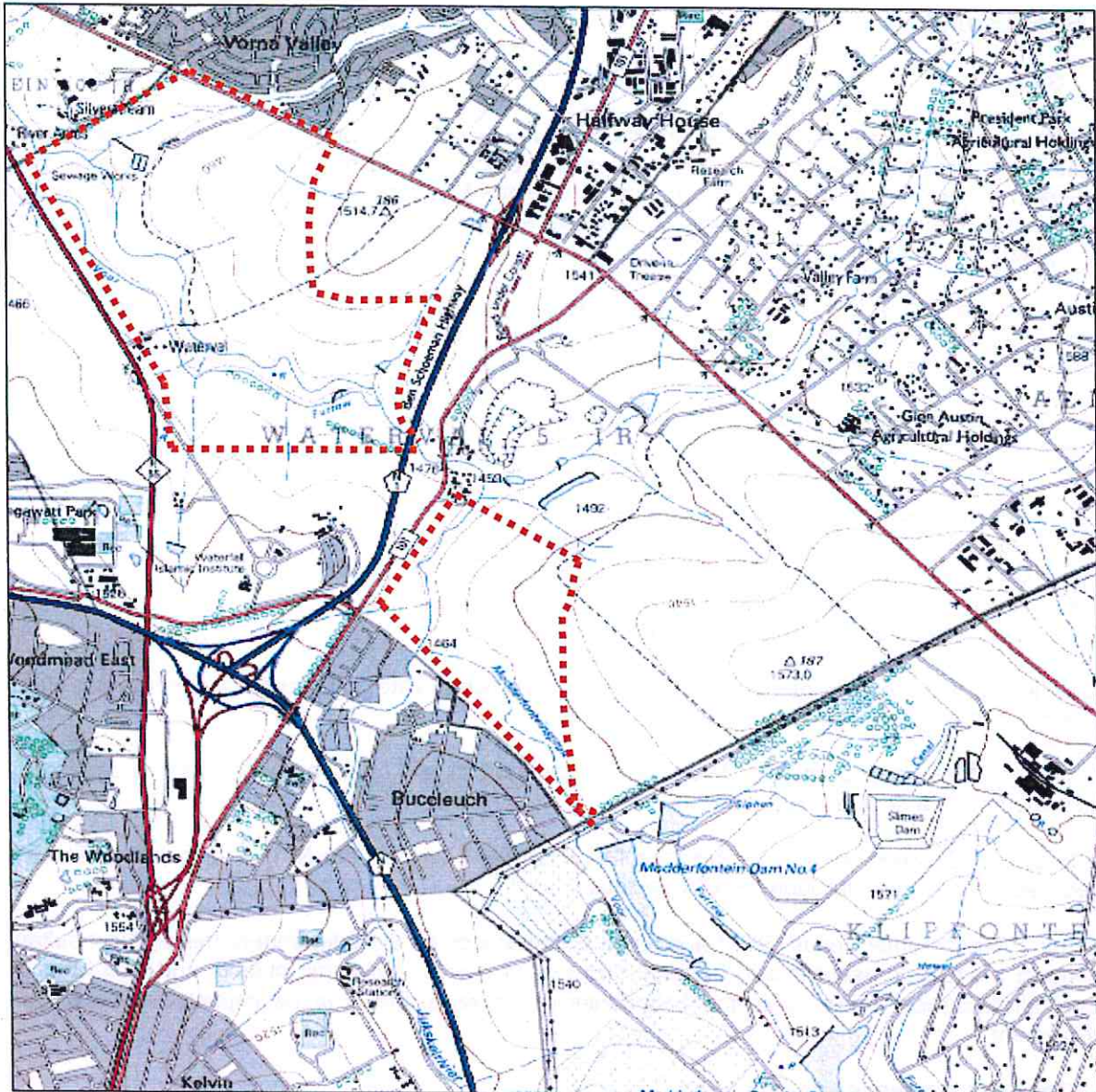
The aim of the investigation is to identify, verify and analyse heritage issues and to recommend how to manage them within the context of the proposed development.

The objectives of the investigation were:



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- Identifying heritage places, objects, buildings, structures etc
- Analysing these;
- Assessing broad cultural significance of identified sites, places, buildings, structures, objects etc involving site
- Surveying and mapping of significance/sensitivity issues and opportunities/constraints issues;
- Reviewing of the general compatibility of the proposed development with heritage policy planning frameworks;
- Undertaking a preliminary assessment of the acceptability of the proposed development from a heritage perspective;
- Identifying the need for alternatives if necessary;
- Recommending initial management measures to conserve significant heritage elements.



**FIGURE 1: Portion of 2628 AA 1:50 000 map (Johannesburg) indicating boundaries (dotted lines) of proposed Northern Golf Courses development site**



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A heritage scoping investigation is comparable to a strategic environmental assessment (SEA) in respect of the following:

- It is pro-active and informs the Northern Golf Courses development;
- It assesses the effect of existing heritage elements on development opportunities and constraints;
- It relates to broad areas;
- It enables the development of a framework against which positive and negative impacts on heritage elements can be measured;
- It focuses on maintaining a chosen level of conserving the heritage qualities of the area;
- It has a wide perspective and includes a low level of detail;
- It forms a basis for certain specialist investigations such as architecture and archaeology in the case of the Northern Golf Courses Project.

EIA focuses on the positive and negative impacts of a specific development project once it has been formulated. The role of SEA, however, is to allow for the decision maker to proactively determine the most suitable development type for a particular area, **before** development proposals are formulated.

### 1.1.3 Definitions and assumptions

The following aspects have a direct bearing on the investigation and the resulting report:

- X *Cultural (heritage) resources* are all non-physical and physical human-made occurrences, as well as natural occurrences that are associated with human activity. These include all sites, structures and artefacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development.
- X The *significance* of the sites and artefacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.
- X Although the focus of the scoping investigation was on the Northern Golf Courses development sites, Cultmatrix cc also looked at the adjacent areas. Experience with physical developments has shown that there are normally "spill-over" effects on adjacent areas often with negative impacts, which also need to be assessed.

### 1.1.4 Limitations

The investigation has been influenced by the following factors related to time scales of the overall EIA:

- Availability and reliability of baseline information about the affected area;
- Unpredictability of buried archaeological/palaeontological remains (absence of evidence does not mean evidence of absence);
- Difficulty in establishing nature and degree of significance of intangible heritage values, which will only be accessed through the public participation phases;
- Degree of contentiousness of the project from a heritage perspective and the need for targeted consultation as part of the broader EIA process.

## 1.2 Legal context

This study constitutes a Level 2 heritage scoping report as part of the environmental impact assessment required by SAHRA (and GDACE) for authorising the development of the Northern Golf Courses on Mia's Farm. In terms of Section 38 (1) of the National Heritage Resources Act (NHRA) (Act 25 of 1999), a heritage impact assessment is required by the responsible heritage resources agency, which, in this case, is the SAHRA provincial office in Johannesburg.

The purpose of this report is to alert the developer/contractor, SEF and interested and affected parties at the earliest possible stage about existing and potential heritage resources that may be affected by



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the proposed development, and to recommend mitigatory measures aimed at reducing any potentially negative impacts on these heritage resources.

The heritage scoping report can form the basis of a full HIA investigation. This scoping report should be made available for public comments. A final report, based on the scoping report and the results of the public participation process, must be submitted to SAHRA's Gauteng office for consideration and authorisation in terms of Section 38(10) of the NHRA.

**1.3 Development criteria in terms of Section 38(1)**

1.3	Development criteria in terms of Section 38(1)	Yes/No details
1.3.1	Construction of road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length	Possible
1.3.2	Construction of bridge or similar structure exceeding 50m in length	No
1.3.3	Development exceeding 5000 sq m	Yes
1.3.4	Development involving three or more existing erven or subdivisions	No information
1.3.5	Development involving three or more erven or divisions that have been consolidated within past five years	No information
1.3.6	Rezoning of site exceeding 10 000 sq m	Yes
1.3.7	Any other development category, public open space, squares, parks, recreation grounds	Yes
1.3.8	Costs of which will exceed a sum set in terms of regulations set by SAHRA and the PHRA	No

**1.4 Property ownership**

1.4	Property owners	
1.4.1	Names	Witwatersrand Estates Ltd
1.4.2	Name and contact address	
1.4.3	Telephone number	
1.4.4	Fax number	
1.4.5	E-mail	

**1.5 Development Project Coordinator**

1.5	Project Coordinator	
1.5.1	Name and contact address	Mark Corbett, Century Property Developments, Box 70406, Bryanston 2021
1.5.2	Telephone number	(011) 464-2962
1.5.3	Fax	(011) 464-1316
1.5.4	E-mail	<a href="mailto:mark@century-group.co.za">mark@century-group.co.za</a>

**1.6 Heritage impact assessment specialists and methods of investigation**

**1.6.1 Specialists**

Specialist 1		
1	Name and contact address	Dr RC de Jong (Principal Member: Cultmatrix cc), PO Box 12013, Queenswood 0121, Pretoria
2	Qualifications and field of expertise	PhD (Cultural History) UP (1990), Post-Graduate Museology Diploma UP (1979), general heritage management specialist with experience in museums and heritage since 1983
3	Relevant experience in study area	Started a similar investigation of the site for an earlier EIA managed by Felehetsa; did a heritage survey of Midrand in the mid-1990s
4	Telephone number	(082) 577-4741
5	Fax number	(0866) 127383
6	E-mail	<a href="mailto:cultmat@iafrica.com">cultmat@iafrica.com</a>

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Specialist 2		
1	Name and contact address	Prof Karel Bakker
2	Qualifications and field of expertise	PhD (Architecture)(UP). Specialist in architectural heritage management and conservation.
3	Relevant experience in study area	HIAs with regard to various projects in Johannesburg area, including mine sites
4	Telephone number	(083) 564-0381
5	Fax number	(012) 330-1021
6	E-mail	<a href="mailto:kabakker@telkomsa.net">kabakker@telkomsa.net</a>

Specialist 3		
1	Name and contact address	Dr JA van Schalkwyk, PO Box 26389, Monument Park 0105
2	Qualifications and field of expertise	D Litt et Phil (UNISA), Post-Graduate Museology Diploma UP, general heritage management specialist with experience in museums and heritage, anthropologist and archaeologist
3	Relevant experience in study area	Archaeological investigation of entire site for Midrand municipality in mid-1990s
4	Telephone number	(012) 347-7270
5	Fax number	
6	E-mail	<a href="mailto:jvschalkwyk@mweb.co.za">jvschalkwyk@mweb.co.za</a>

### 1.6.2 Method of investigation

#### *Preliminary investigation (desktop study)*

##### Survey of the literature

A survey of the relevant literature and archival records was conducted with the aim of reviewing the previous research done and determining the heritage potential of the area.

##### Other sources

- Topographical maps
- Aerial photographs (current and 1938)
- Historic maps
- Various Internet sources

##### *Field surveys*

The field surveys were aimed at locating possible sites, objects and structures that were identified through the desktop study and to find new ones. Members and associates of Cultmatrix by means of maps and aerial photos and during site visits identified the area that had to be investigated. The area was investigated on foot and by vehicle. GPS coordinates were obtained for identified sites.

##### *Documentation*

All sites, objects and structures that are identified are documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities are determined by means of the *Global Positioning System (GPS)*<sup>1</sup> and plotted on a map. This information is added to the description in order to facilitate the identification of each locality.

##### *Report*

<sup>1</sup> According to the manufacturer a certain deviation may be expected for each reading. Care was, however, taken to obtain as accurate a reading as possible, and then to correlate it with reference to the physical environment before plotting it on the map.



The findings and recommendations of the heritage scoping study are contained in this report.

### 1.7 Property details

1.7	Property details	
1.7.1	Name and location of property	Mia's Farm, Midrand
1.7.2	Erf or farm numbers	Waterval 5 IR
1.7.3	Magisterial district	Johannesburg
1.7.4	Local authority	City of Johannesburg
1.7.5	Current use	Agricultural
1.7.6	Current zoning	
1.7.7	Land use of surrounding properties	Mixed residential and commercial
1.7.8	Extent of property	646 ha

### 1.8 Development description

1.8	Development description	
1.8.1	Nature of proposed development	To be guided by results of scoping
1.8.2	Siting, orientation, height and footprint of new structures	To be guided by results of scoping
1.8.3	Location and treatment of access roads to site, internal roads, parking	To be guided by results of scoping
1.8.4	Intended extent of cut/fill on steep slopes	To be guided by results of scoping
1.8.5	Intended demolition/alteration of existing structures	To be guided by results of scoping
1.8.6	Intended removal/retention of existing vegetation	To be guided by results of scoping
1.8.7	Type and height of new signage	To be guided by results of scoping
1.8.9	Nature and height of boundary treatments	To be guided by results of scoping
1.8.10	Location of construction facilities	To be guided by results of scoping
1.8.11	Traffic within, to and from site	To be guided by results of scoping
1.8.12	Architectural treatment and use of materials	To be guided by results of scoping
1.8.13	Extent of proposed demolitions and new additions to existing structures	To be guided by results of scoping
1.8.14	Phasing of project and nature and extent of future expansion	To be guided by results of scoping
1.8.15	Project alternatives (proposed)	To be guided by results of scoping
1.8.16	History of application	To be guided by results of scoping

### 1.9 Legal requirements

1.9	Legal requirements	
1.9.1	Is planning permission required for any departures or consent use in terms of zoning schemes? Has an application been submitted to the planning authority and has any comments or approval from the planning authority been obtained?	
1.9.2	Is planning authority permission required for any subdivision or	

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1.9	Legal requirements	
	consolidation? Has an application been submitted to the planning authority and has any comment or approval from the planning authority been obtained?	
1.9.3	Is the proposed development subject to EIA regulations and has an application been submitted to the provincial environmental agency?	Yes
1.9.4	Has any assessment of the impact of the proposed development on any heritage resources been undertaken in terms of EIA or planning processes?	Under way
1.9.5	Title deed restrictions	
1.9.6	Is affected area situated within or adjacent to a conservation area, special area, scenic route or any other area that has special environmental or heritage protection?	Yes: open green space with recreational and agricultural potential and biophysical significance
1.9.7	Does affected area have any special conservation status?	Possible the Jukskei River zone
1.9.8	Are there any other restrictions on the property	
1.9.9	Does the proposed development conform to local planning policies?	Yes
1.9.10	What interested and affected parties have been consulted?	Part of EIA process
1.9.11	Is approval from any authority required?	Yes
1.9.12	Has permission for similar development been refused by any authority in the past?	No

**1.10 Acknowledgements**

Cultmatrix cc is grateful for the permission granted by Messrs Ibrahim Mia and Abdulrahman Mia to access the development area.

Cultmatrix also express their gratitude towards Mr P Bowerman and Ms D Sutherland of the Surveys and Mapping Directorate, Department of Land Affairs, Cape Town, for sourcing, scanning and mailing the 1938 aerial photographs of the development area.



**PART 2: HERITAGE ASPECTS OF THE AFFECTED AREA**

**2.1 Cultural significance, issues and environmental concerns of site and context**

<b>2.1</b>	<b>Cultural significance, issues, concerns</b>	
2.1.1	Environmental and heritage context	See 2.2 below
2.1.2	Cultural significance of adjoining properties relating to property	Not known
2.1.3	Archaeological remains	Possible
2.1.4	Palaeontological remains	No
2.1.5	Structures older than 60 years	Yes (old Waterval farmstead and water furrows)
2.1.6	Graves or burial sites	Yes
2.1.7	Formally protected heritage sites (Grade 1, 2, 3)	No
2.1.8	Is affected area part of proclaimed special area, conservation area, heritage area, protected area	No but adjoins Modderfontein Conservation Area
2.1.9	Places or objects of cultural significance, listed heritage resources	Old Waterval farmstead, water furrow, cemetery, weirs in Jukskei River, rapids in river
2.1.10	Places with oral traditions	Yes (rapids)
2.1.11	Part of historical settlement or townscape	No
2.1.12	Part of landscape of cultural significance	Yes
2.1.13	Geological sites of cultural importance	No
2.1.14	Places or objects related to history of slavery	No
2.1.15	History of property	See 2.2
2.1.16	Association with important person, event, groups, activities, public memory	Mia family and Waterval Islamic Institute
2.1.17	Sea frontage or water source	Yes (Jukskei River)
2.1.18	Rocky outcrops	Yes
2.1.19	Rock shelters	No
2.1.20	Part of coastal dune system	No
2.1.21	Geological features	No
2.1.22	Located on land reclaimed from sea	No
2.1.23	Situated adjacent to or within scenic route	No
2.1.24	Previously cultivated	Partially

**2.2 General history of the affected environment**

**2.2.1 Stone Age occupation**

The cultural heritage in Midrand has been shaped by almost continuous human occupation and use of the natural landscape and resources over the past 500 000 years, beginning with human occupation during the Early Stone Age and stretching through Iron Age settlement to colonial settlement in the 1840s. Whereas previously human use of the area was primarily directed towards the production of food and fibre through agriculture, mining and industrial development since the 1880s have changed the landscape, with the result that the cultural heritage of Midrand is now dominated by manifestations and interventions in terms of mining, industry, commerce and urban settlement. Relatively little has remained of the traces of earlier human settlements, except along less disturbed riverine areas (where there often are signs of Stone Age occupation) and on some hilltops, where the ruins of Iron Age settlements have escaped urban development.



Very little is known about the earliest human occupation of Midrand. However, there is little doubt that the first humans in Midrand may have been *Homo erectus* who roamed the area during the Acheulian period of the Early Stone Age, 500 000 years ago. The ancestor of *Homo erectus*, *Australopithecus*, considered to be the earliest ancestor of humans, lived in the Sterkfontein Valley around Krugersdorp (today the Cradle of Humankind – a World Heritage Site) several million years ago.

During the Middle Stone Age, 200 000 years ago, modern man or *Homo sapiens* had emerged, manufacturing a wider range of tools with technologies more advanced than those from earlier periods. This enabled skilled hunter-gatherer bands to adapt to different environments. From this time onwards, rock shelters and caves were used for occupation and reoccupation over very long periods of time.

The Late Stone Age, considered to have started some 30 000 years ago, is associated with the predecessors of the San and Khoi Khoi. San hunter-gatherer bands with their small (microlithic) stone tools lived in Midrand.

Evidence of Stone Age habitation in the Midrand area can be found at a number of sites.

- Situated between the Waterfall Quarry and the N 1 is a rock shelter, which is considered to be one of the oldest Stone Age shelters according to professor-emeritus Revil Mason. Information about this site is contained in a SEF Scoping Report in connection with the rezoning from agricultural to commercial uses of this portion (July 2001). The stone artefacts at this site, probably dating back to the Middle Stone Age, have been excavated.
- An archaeological investigation (1997) (by Revil Mason) connection with the development of *The Boulders*, a shopping mall at Halfway House (north of Waterval) yielded evidence of Middle and Late Stone Age occupation.
- Further downstream is the Glenferness archaeological site next to the Jukskei River.

Because colonial farmers, settlers and miners have continuously and intensively used the development area for the past 150 years, no signs of Stone Age occupation in the form of surface deposits and finds of artefacts have been found at Waterval.

### **2.2.2 Iron Age occupation**

The excavations at The Boulders indicate that between 350 AD and 600 AD early Tswana communities lived in the Midrand area, building semi-permanent settlements of stone, wood and clay, growing crops, farming with livestock and manufacturing pots and iron implements. They moved out after 600 AD and returned about 1200 AD.

Between 1100 AD and 1200 AD San communities inhabited the area. Tswana communities returned in about 1500 AD and stayed in the area until their displacement by the Matabele kingdom during the 1820s and early 1830s and by colonial settlers since the 1840s.

Because colonial farmers, settlers and miners have continuously and intensively used the development area for the past 150 years, no signs of Iron Age occupation in the form of surface deposits and finds of artefacts have been found at Waterval.

### **2.2.3 Colonial settlement**

The first white colonists who settled in the Midrand area came for very much the same reasons as the Iron Age groups: water and grazing for cattle, water for crop-farming, trees, thatching grass, clay for making bricks and pots, mild climate, wildlife and the presence of the hills as shelter and protection.

In the 1820s the first white people appeared on the scene, hunters, traders, missionaries and other travellers. Permanent occupation by whites began in the early 1840s, when Voortrekker farmers established the farms that today form Johannesburg and Midrand. These farms were subdivided many times over in more recent years and more farmsteads were established. Gradually the entire area was divided into farms. However, it was only since the 1880s that these farms were formally surveyed and



mapped, and when not only their names (such as Waterval), but also the names of rivers and other features became permanent fixtures on maps.

#### 2.2.4 The farm Waterval 5 IR

The original farm Waterval No 34 (now 5 IR) was probably established in the 1850s when many other colonial farms were created following the permanent settlement of the Voortrekkers in the Midrand area. It is alleged that Paul Kruger (later State President of the Transvaal Boer republic) was one of its first owners, but this must be verified by research. Even by the standards of those days it was a large farm, comprising about 4000 morgen (about 3400 ha). It was named after some rapids (referred to as a waterfall) in the Jukskei River, which are situated immediately west of the N 1.

The Jukskei River is a tributary of the Hennops River. It is named after the Afrikaans word *Jukskei*, meaning *yoke-pin*. The name is said to have been given on 8 October 1853 by a prospector, Pieter Jacob Marais, who discovered traces of gold on the river bank and a yoke-pin lying at this spot.

Peter MacDonald properly surveyed the farm in May 1888 for its then owner, Miss E Pymont. Surveyor-General Johann Rissik approved the diagram in June 1888, which was then signed off by President Paul Kruger in January 1889.

Two Englishmen, James K and John A Gibson, bought large portions of the farm where they bred cattle and established commercial plantations. The Gibson's were owning and managing a stage-coach service between Johannesburg and Pretoria and established a hotel as a "pit-stop" on their farm, soon known as *Halfway House*. This area was proclaimed as the *Waterfall Park Estate Township* in 1889 and the first land was sold in 1890. It was the nucleus of today's Halfway House, north of the development sites.

Descendants of the Gibsons sold their portions of the farm to the Witwatersrand Estates Ltd in June 1934. Indian families, including the Mia family, held the controlling interest in this company. The company leased the farm to SI Mia. He was concerned about the education of Indian children who, either through poverty or because their parents resided in isolated parts of South Africa, could not enjoy proper education. He started a school and hostel in Market Street, Johannesburg, where Indian street children and orphans were also admitted. This school grew so fast that a new site had to be found. Subsequently, in 1937 permission was granted by the authorities to establish a school for Indian children on the farm Waterval. Construction of this facility, known as the *Waterval Islamic Institute*, started in 1939 and the school opened in 1940. The Institute comprised a madrasah, boarding school and mosque. It was the first establishment of its kind in the former Transvaal Province. It is likely that some of the existing farm buildings were altered during this period and that some new buildings were erected as well.

The establishment of Mia's farm led to the revival of the *Jamiatul Ulama Transvaal*, originally created in 1923 as an organisation to which Indian religious leaders belong in the former Transvaal Province.

Staff quarters were provided at the Waterval farmstead, which still exists. African farm workers were housed in a separate compound on the farm, which included a school. No traces of this compound were found. According to the 1938 aerial photo, other parts of the farm were occupied by what appears to be African tenant farmers, who left behind a number of ruins of mud-brick houses (found east of the N 1).

The main purpose of farming on Waterval was (and still is) to provide meat and dairy products to the Islamic Institute and also funds from the sale of these products. For this purpose an irrigation system was constructed, comprising water furrows, dams and weirs, providing water for pastures and crops. Various buildings for this purpose were added to the existing buildings at the farmstead.

The township of Buccleugh, also on the farm Waterval, was established by FC Gibson and named after the residence of his father, John A Gibson, at Kenilworth in the Western Cape. It was proclaimed in August 1938.



2.3 General description of the affected environment

From a heritage perspective, the proposed development sites are some of the few remaining original farmlands between Pretoria and Johannesburg and thus have visual (physical) and intangible (place names, events, activities, legends etc) significance. Basically the development sites consist of sloping plains of Highveld grass with scattered clumps of trees (mainly exotic), granite outcrops and the scenic Jukskei River valley as main features. It is traversed by a variety of arterial roads such as the N 1. The main heritage elements comprise the irrigation system associated with the Jukskei River, the Waterval farmstead, an old sewage treatment plant near the northern boundary, an extensive cemetery close to this plant and a small number of ruins of mud-brick houses.

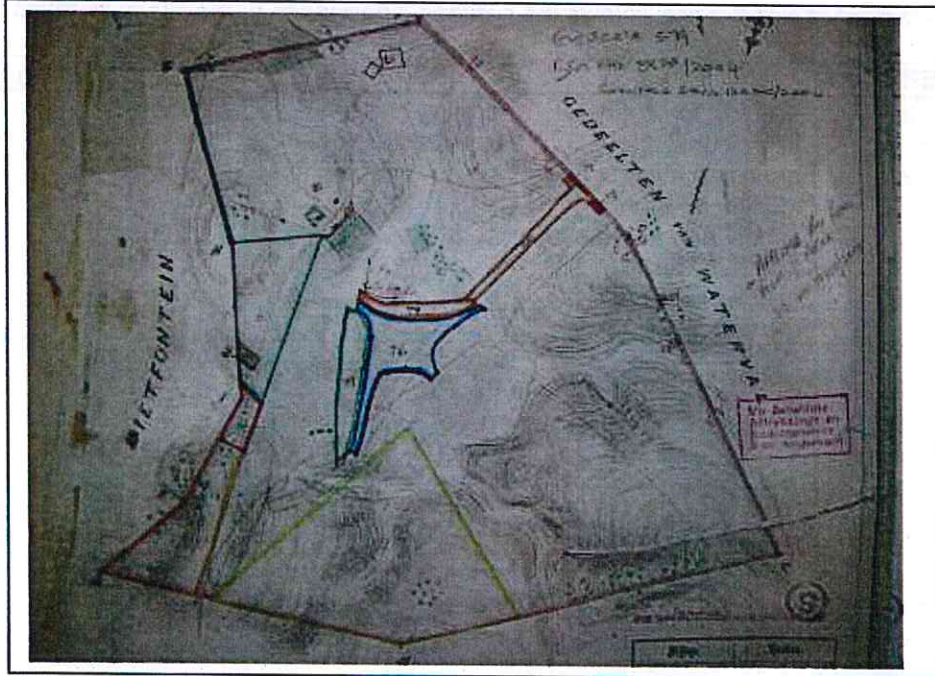


FIGURE 2: Original farm map, Department of Land Affairs, Pretoria

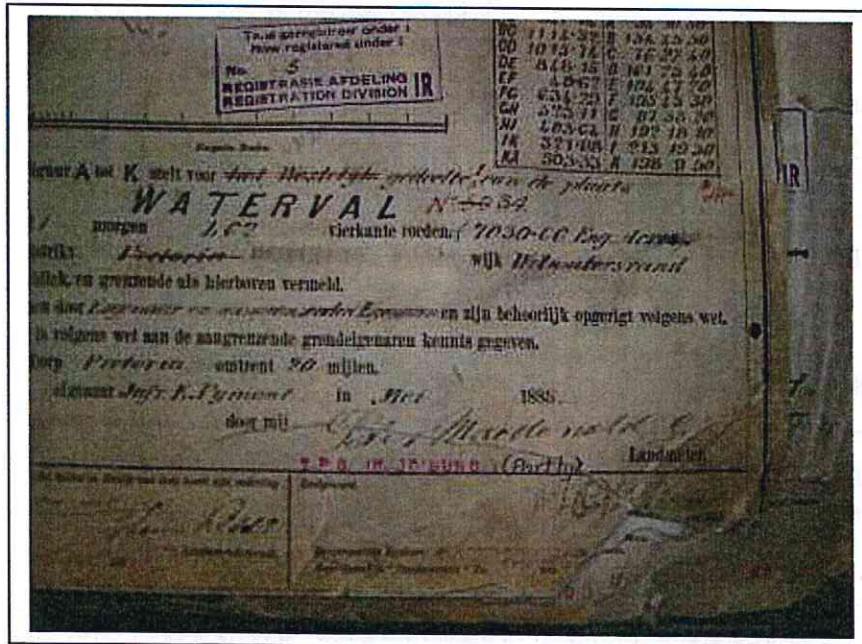


FIGURE 3: President Paul Kruger's signature (below right) on farm map



**PART 3: FINDINGS AND RECOMMENDATIONS**

**3.1 Identification and mapping of heritage resources**

See Annexure 1.

**3.2 Assessment of significance of heritage resources**

**3.2.1 Significance assessment of the site in its totality**

The below statement of significance reflects the heritage significance of the site in its totality.

KEY CRITERIUM	ELEMENTS	EVIDENCE	Rating
Importance in the community, or pattern of South Africa's history	Support for Waterval Islamic Institute, providing the first Muslim boarding school and madrassa with subsidised tuition in the north of the country	Farming facilities, farmstead, cemetery	Medium
Possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage	None	None	Low
Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Entire site	Possible oral information sources (former employees)	Medium
Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Entire site	Farmstead and irrigation system as good examples of farming techniques and facilities	Medium
Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	Entire site	Green open farmland in dense urban areas	High
Importance in demonstrating a high degree of creative or technical achievement at a particular period	None	None	Low
Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Entire site	Associated with Mia family	High

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KEY CRITERIUM	ELEMENTS	EVIDENCE	Rating
Strong or special association with the life and work of a person, group or organisation of importance in the history of South Africa	Entire site	Waterval Islamic Institute	High
Site of significance relating to the history of slavery/labour in South Africa	Ruins of houses, cemetery	Impression of living conditions	Low
Economic significance	Entire site	Some buildings and open areas can be rehabilitated for new uses	High

**3.2.2 Significance assessment of individual heritage-related features**

See Annexure 1.

**3.3 Impact assessment**

A table summarised anticipated impacts on heritage resources is provided in Annexure 3.

**3.4 Social and economic benefits**

It is anticipated that the social and economic benefits associated with the proposed development could outweigh the benefits in conserving certain heritage elements.

**3.5 Consultation with affected communities**

This process is part of the EIA as a whole and could also be part of the HIA process. It is anticipated that this could generate new heritage-related information.

**3.6 Key mitigation and enhancement measures**

The most important in this context are the following:

- Documentation of highly significant heritage sites before any future changes related to rehabilitation and new uses, namely the Waterval farmstead, furrow system, tree lanes, dams and weirs;
- Documentation (where necessary) of heritage sites of low significance that can be demolished, namely the sewage treatment plant and ruins of farm labourers' cottages;
- Relocation of the cemetery as prescribed by the Regulations (2000) in terms of the National Heritage Resources Act;
- Changes to the layout of the development affecting the Waterval farmstead to provide for the preservation of significant buildings and landscape elements (already agreed to by the developers).

**3.7 Mitigation of adverse effects during and after construction**

The following project actions may impact negatively on archaeological sites and other sites of cultural importance. The actions are most likely to occur during the construction phase of the proposed project.

- Road making, construction activities and development of services may expose as yet unknown heritage resources;
- Occupation of the area would bring in curious visitors, who might destroy or remove objects from the identified sites;



- Removal of historic fabric during demolition.

We recommend that:

- Construction work is monitored by specialist archaeologists, cultural historians or conservation architects for the uncovering of any archaeological and historical sites, structures and objects through excavation and demolition activities;
- This recommendation must be included in construction tender documents.
- Identified sites should be properly documented and protected.

### 3.8 Key uncertainties and risks that may influence accuracy and confidence of scoping investigation

It is possible that new information, which could change the recommendations, will be generated through the following research activities:

- Public participation inputs
- Archaeological and historical sites and objects that are hidden or are buried

### 3.9 Final recommendations

The aim of the investigation was to identify, verify and analyse heritage issues and to recommend how to manage them within the context of the proposed development.

Based on what was found and its evaluation, it is recommended that the proposed development can continue in the area, on condition of acceptance of the following recommendations:

- That the proposed heritage conservation actions/interventions, as set out in 3.6, 3.7, the below summary and Annexure 1 of this report, are applied for each identified site;
- That a Conservation Management Plan (CMP) (to be authorised by SAHRA) should be compiled in order to provide for the rehabilitation, adaptation and new uses of conserved heritage resources. See Annexure 4 for a framework of such a CMP.

Summary of proposed conservation and mitigation measures (site numbers refer to detailed descriptions in Annexure 1):

SITE	DESCRIPTION	SIGNIFICANCE	MANAGEMENT ACTION
1	Waterval farmstead	High	Preserve significant buildings and incorporate in layout for rehabilitation purposes (new uses)
2	Sewage treatment plant	Low	No compelling conservation reasons
3	Cemetery	High	Relocate
4	Water furrow	Medium to high	Incorporate into layout
5	Dams and weirs in river	Medium	Incorporate in layout if ecologically acceptable
6	Rapids (Waterval)	High	Conserve
7	Tree lane	Medium	Conserve memory in layout
8	Ruins	Low	Document and demolish where appropriate

**PART 4: INFORMATION SOURCES USED IN THIS REPORT****4.1 Archival sources**

**DEPOT** SAB  
**SOURCE** ARG  
**TYPE** LEER  
**VOLUME\_NO** 144  
**SYSTEM** 01  
**REFERENCE** GEN12/4  
**PART** 1  
**DESCRIPTION** FARM WATERVAL NO 34, JOHANNESBURG OWNED BY THE WITWATERSRAND ESTATES LTD AND LEASED TO AM **MIA** AND THE **ISLAMIC** INSTITUTE - OBJECTIONS RAISED RE ASIATIC OCCUPATION AND TRADING.  
**STARTING** 19430000  
**ENDING** 19490000

**DEPOT** SAB  
**SOURCE** BNS  
**TYPE** LEER  
**VOLUME\_NO** 1/1/19  
**SYSTEM** 01  
**REFERENCE** 71/22  
**PART** 1  
**DESCRIPTION** TRANSVAAL ORDINANCE. **WATERVAL 34** PROPOSED TOWNPLANNING ORDINANCE FOR.  
**STARTING** 1934  
**ENDING** 1937

**DEPOT** SAB  
**SOURCE** URU  
**TYPE** LEER  
**VOLUME\_NO** 1883  
**SYSTEM** 01  
**REFERENCE** 1800  
**PART** 1  
**DESCRIPTION** RESERVATION OF PORTIONS NOS 42 AND 43 OF FARM **WATERVAL NO 34**, JOHANNESBURG, FOR EDUCATIONAL PURPOSES.  
**STARTING** 1940  
**ENDING** 1940

**DEPOT** SAB  
**SR/SN** 000/00  
**SOURCE** GEM  
**TYPE** LEER  
**VOLUME\_NO** 268  
**SYSTEM** 01  
**REFERENCE** G20/2/199  
**PART** 1  
**DESCRIPTION** WITWATERSRAND ESTATES LIMITED JOHANNESBURG. REMAINING EXTENT OF THE WESTERN PORTION OF **WATERVAL NO 34** JOHANNESBURG.  
**STARTING** 1952  
**ENDING** 1952  
**REMARKS** OU NO BNSGA2/1/199.

**DEPOT** SAB  
**SOURCE** ARG  
**TYPE** LEER  
**VOLUME\_NO** 139  
**SYSTEM** 01  
**REFERENCE** PROC1/5  
**PART** 1  
**DESCRIPTION** APPLICATION FOR A PROCLAMATION IN TERMS OF SECTION 6(4)(A) OF ACT NO 28 OF 1946 IN RESPECT OF THE REMAINDER OF THE FARM **WATERVAL NO 34** (IN EXTENT 3744 - 2769 MORGEN) DISTRICT JOHANNESBURG PROCLAMATIONS: NO 321, 1949 AND NO 75 OF 1951.



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STARTING 19490000  
ENDING 19520000

DEPOT SAB  
SOURCE ARG  
TYPE LEER  
VOLUME\_NO 144  
SYSTEM 01  
REFERENCE GEN12/4  
PART 1

DESCRIPTION FARM WATERVAL NO 34, JOHANNESBURG OWNED BY THE WITWATERSRAND  
ESTATES  
LTD AND LEASED TO AM MIA AND THE ISLAMIC INSTITUTE - OBJECTIONS  
RAISED RE ASIATIC OCCUPATION AND TRADING.

STARTING 19430000  
ENDING 19490000

DEPOT SAB  
SOURCE CDB  
TYPE LEER  
VOLUME\_NO 3/771  
SYSTEM 01  
REFERENCE TAD9/25/19  
PART 1

DESCRIPTION DEPARTEMENT PLAASLIKE BESTUUR. ONDERVERDELING VAN PLAASGROND.  
JOHANNESBURG. WATERVAL 34 - 51R.

STARTING 19400000  
ENDING 19630000

DEPOT SAB  
SOURCE CDB  
TYPE LEER  
VOLUME\_NO 3/1003  
SYSTEM 01  
REFERENCE TAD13/1/104  
PART 1

DESCRIPTION PLAASLIKE BESTUUR. LANDBOUHOEWES. BUCCLEUCH. PLAAS WATERVAL 34.  
DISTRİK JOHANNESBURG.

STARTING 19190000  
ENDING 19370000

DEPOT SAB  
SOURCE CDB  
TYPE LEER  
VOLUME\_NO 3/1177  
SYSTEM 01  
REFERENCE TAD14  
PART 1

DESCRIPTION PLAASLIKE BESTUUR. STEDELIKE NEDERSETTINGS. PLAAS WATERVAL 34.

STARTING 19340000  
ENDING 19340000

DEPOT SAB  
SOURCE VWN  
TYPE LEER  
VOLUME\_NO 2205  
SYSTEM 01  
REFERENCE SWC9/191/1  
PART 1

DESCRIPTION WATERVAL ISLAMIC INSTITUTE. PER CAPUT GRANTS.

STARTING 1955  
ENDING 1959

DEPOT SAB  
SOURCE HEN  
TYPE LEER  
VOLUME\_NO 2307  
SYSTEM 01

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REFERENCE 437/1/12/541

PART 1

DESCRIPTION COMPANIES ACT REGISTRATION OF COMPANIES UNDER SECTION 21. WATERVAL ISLAMIC INSTITUTE.

STARTING 1960

ENDING 1960

DEPOT SAB

SOURCE BEP

TYPE LEER

VOLUME\_NO 157

SYSTEM 01

REFERENCE G7/139/12

PART 1

DESCRIPTION JOHANNESBURG WATERVAL ISLAMIC INSTITUTE.

STARTING 19540000

ENDING 19620000

DEPOT TBK

SOURCE KUS

TYPE LEER

VOLUME\_NO 2799

SYSTEM 02

REFERENCE 8/7/6/C148

PART 1

DESCRIPTION PRIVATE KINDERHUISE EN VERSORGINGSOORDE: VERSLAE EN STATUTERE OPGAWES: WATERVAL ISLAMIC INSTITUTE, JOHANNESBURG.

STARTING 1961

ENDING 1965

DEPOT SAB

SOURCE CDB

TYPE LEER

VOLUME\_NO 5733

SYSTEM 01

REFERENCE PB4/2/2/5353

PART 1

DESCRIPTION PLAASLIKE BESTUUR. GEMEENSKAPSVORMING. DORPE. HALFWAY HOUSE UITBREIDING 7. PLAAS WATERVAL 5IR. DISTRIK JOHANNESBURG.

STARTING 19740000

ENDING 19770000

DEPOT SAB

SOURCE CDB

TYPE LEER

VOLUME\_NO 7225

SYSTEM 01

REFERENCE PB4/2/2/6719

PART 2

DESCRIPTION PLAASLIKE BESTUUR. GEMEENSKAPSVORMING. DORPE. VORNA VALLEY UITBREIDING 11. FARM WATERVAL 5IR. MIDRAND.

STARTING 19830000

ENDING 19880000

DEPOT SAB

SOURCE CDB

TYPE LEER

VOLUME\_NO 7305

SYSTEM 01

REFERENCE PB4/3/2/2/22

PART 1

DESCRIPTION GEMEENSKAPSVORMING. ONWETTIGE DORPE. GEDEELTE 47 (GEDEELTE VAN GEDEELTE 12). WATERVAL 5IR. JOHANNESBURG.

STARTING 19740000

ENDING 19820000



DEPOT SAB  
SOURCE RLA  
TYPE LEER  
VOLUME\_NO 53  
SYSTEM 01  
REFERENCE 20/2/2/4/34  
PART 1  
DESCRIPTION FISIESE BEPLANNING. GIDSBEPLANNING. GROTER PRETORIA. WYSIGING VAN  
GIDSPLAN. 'N GEDEELTE VAN DIE PLAAS **WATERVAL 5IR**.  
STARTING 19850000  
ENDING 19900000

DEPOT SAB  
SOURCE CDB  
TYPE LEER  
VOLUME\_NO 16138  
SYSTEM 01  
REFERENCE PB13/2/S6/1  
PART 1  
DESCRIPTION DEPARTEMENT PLAASLIKE BESTUUR. BEHEER OOR PLAASLIKE OWERHEDE.  
GROEPSGEBIEDPERMITTE. SANDTON. GEDEELTE 40 (GEDEELTE VAN GEDEELTE  
20). **WATERVAL 5IR**. K MIA.  
STARTING 19850000  
ENDING 19870000

#### 4.2 Literature

Amazing find at boulders. *Midrand Reporter*, 10 July 1997.

GIFFORD, G, Cave home of early Tswana on banks of Jukskei River will change way history is taught.  
*The Star*, 20 Jan 1997.

Halfway House. *Be my guest*, August 1988.

MACDONALD, ZAHRAA, undated, *Constructing a conservative identity: The Tabligh Jamā`a in Johannesburg* (posted on the Internet).

*Standard Encyclopedia of Southern Africa*, Vol 2., 1972. Cape Town: Nasou.

Jamiatul Ulama. 2005. *A Brief Chronology of 350 Years of Muslim Presence in South Africa*. Ar Rasheed, Vol 8, No. 1, page 6, 8 April 2005.

#### 4.3 Maps

Department of Land Affairs, Pretoria: Historic maps of farm Waterval 5 IR (in Plan Room)  
1:50 000 map 2628 AA Johannesburg

#### 4.4 Aerial photographs

1938  
2005

#### 4.5 Unpublished reports

STRATEGIC ENVIRONMENTAL FOCUS, 2001, *Rezoning from agricultural to commercial on a portion of the farm Waterval 5 IR, Midrand, Gauteng*. Submitted to Property Management Development.

NATIONAL CULTURAL HISTORY MUSEUM, 1996, *Survey of heritage resources in Midrand area*.

## PART 5: TERMINOLOGY USED IN THIS REPORT

### Cultural significance (Burra Charter)

Aesthetic, historic, scientific, social or spiritual importance, meaning or noteworthiness for past, present or future generations

Cultural significance is embodied in the place itself (intrinsic significance), its fabric, setting, use, associations, meanings, records, related places and related objects

### Heritage resources/features (NHRA)

Any place or object of cultural significance, including:

- (a) places, buildings, structures and equipment of cultural significance;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds, including—
  - (i) ancestral graves;
  - (ii) royal graves and graves of traditional leaders;
  - (iii) graves of victims of conflict;
  - (iv) graves of individuals designated by the Minister by notice in the *Gazette*;
  - (v) historical graves and cemeteries; and
  - (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including—

- (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
- (ii) objects to which oral traditions are attached or which are associated with living heritage;
- (iii) ethnographic art and objects;
- (iv) military objects;
- (v) objects of decorative or fine art;
- (vi) objects of scientific or technological interest; and
- (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

### Heritage significance (NHRA)

- (a) its importance in the community, or pattern of South Africa's history;
- (b) its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- (c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- (d) its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- (e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) its strong or special association with the life or work of a person, group or



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organisation of importance in the history of South Africa; and  
(i) sites of significance relating to the history of slavery in South Africa.

### Historic period

Since the arrival of the white settlers - c. AD 1840 in this part of the country

### Impact

A description of the effect of an aspect of the development on a specified component of the biophysical, social or economic environment within a defined time and space

### Impact assessment

Issues that cannot be resolved during screening (Level 1) and scoping (Level 2) and thus require further investigation

### Iron Age

Early Iron Age (EIA)	AD 200 - AD 1000
Late Iron Age (LIA)	AD 1000 - AD 1830

### Issue

A question that asks what the impact of the proposed development will be on some element of the environment

### Maintenance

Keeping something in good health or repair.

### Management actions

Actions that enhance benefits associated with a proposed development or avoid, mitigate, restore, rehabilitate or compensate for the negative impacts

### Preservation

Conservation activities that consolidate and maintain the existing form, material and integrity of a cultural resource

### PHRA – Provincial Heritage Resources Agency

### Reconstruction

Re-erecting a structure on its original site using original components.

### Rehabilitation

Re-using an original building or structure for its historic purpose or placing it in a new use that requires minimal change to the building or structure characteristics and its site and environment.

### Restoration

Returning the existing fabric of a place to a known earlier state by removing additions or by reassembling existing components.

### SAHRA - South African Heritage Resources Agency

### Stone Age

Early Stone Age (ESA)	2 000 000 - 150 000 Before Present
Middle Stone Age (MSA)	150 000 - 30 000 BP

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Late Stone Age (LSA)

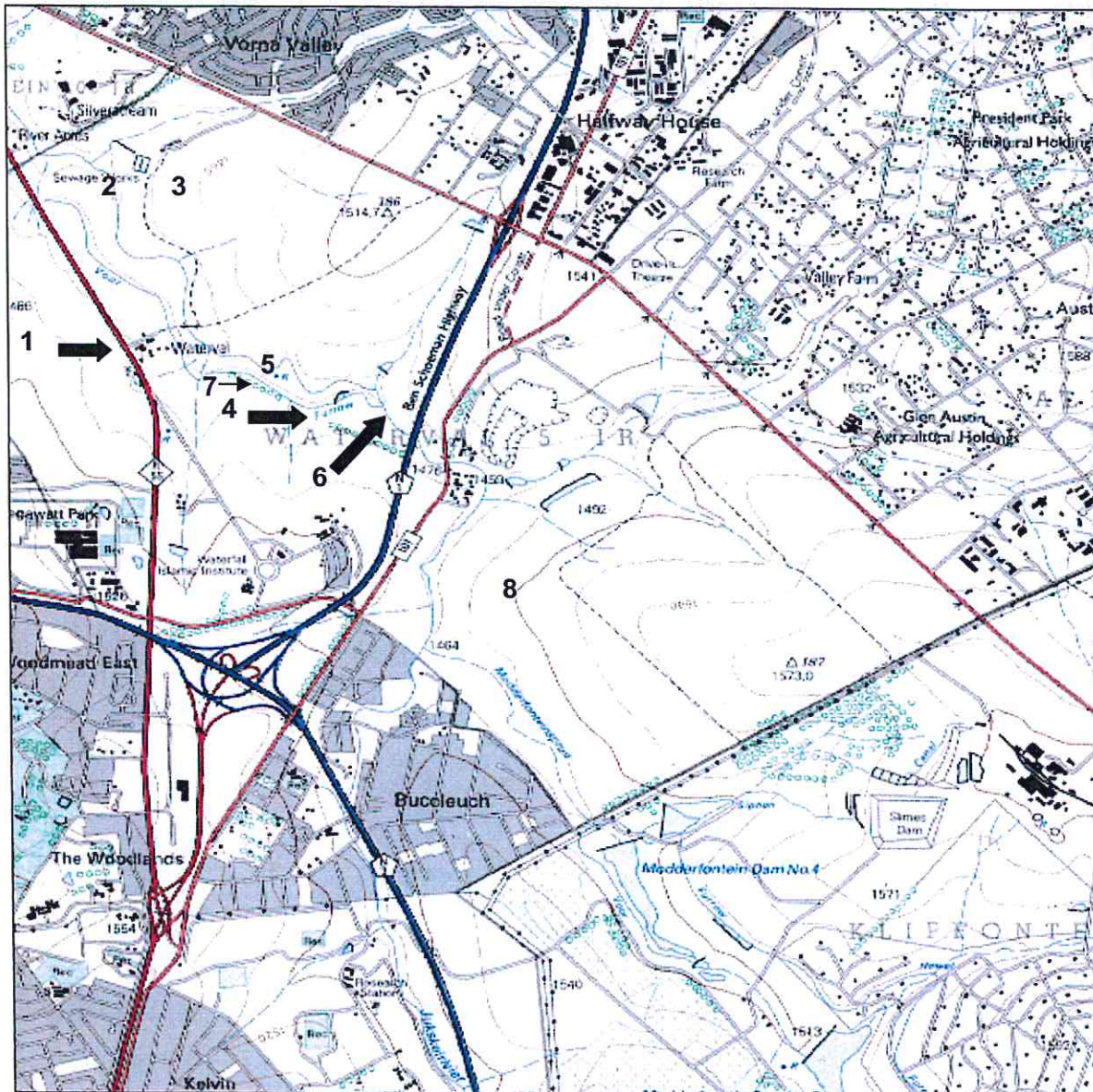
30 000 - until c. AD 200

**Value**

Worth, conservation utility, desirability to conserve etc in terms of physical condition, level of significance (importance), economy (feasibility), possible new uses and associations/comparisons with similar features elsewhere



# ANNEXURE 1: DESCRIPTION AND ASSESSMENT OF INDIVIDUAL HERITAGE RESOURCES



**FIGURE 4: Portion of 1:50 000 map 2628 AA Johannesburg indicating location of individual heritage resources discussed below**



<b>ITEM NO 1: Old Waterval farmstead</b>	
Location	See map
GPS coordinates	See map for location of farmstead. The co-ordinates of the proposed <u>minimum</u> heritage conservation area (excluding the proposed larger conservation area up to the river), basically comprising the farmstead, are as follows: S 26°01'26.38", E 28°05'20.77"  S 26°01'36.83", E 28°05'26.94"  S 26°01'22.34", E 28°05'31.03"  S 26°01'31.36", E 285'37.48"
Original name	Unknown
Other reference	None
Existing documentation	None
<b>Description and discussion: The farm complex in 1938-1939</b>	
<p>From the 1938-1939 aerial photograph (Figure 4, below) one can discern that the complex during the 1930's already consists of a series of small buildings, structures, enclosures, small roads and tracks, trees, agricultural lands and pasturage adjacent and west of the Jukskei River. A plan of the core of the farm complex has been prepared from the 1938-1939 aerial photograph (Figure 1, below), and the numbering system on the plan is used in the following description. The functions of the buildings described below are surmised from their present condition and form.</p> <p>The farm complex has a simple ordering system of buildings adjacent to small orthogonal farm roads, the whole tucked in a corner formed by the old main road, being a dirt road, and a smaller road, also dirt and perpendicular to the main road, providing access to the diary and lands.</p> <p>To the north-west there is a farm house (number 1a) with what appears to be cowsheds (number 1b) with a cattle enclosure (number 1c) to its east, the ensemble bordered by a small farm road to their east and south. A building of unknown function (number 2d) but probably an older pump room, lies on the south side of the small farm road.</p> <p>South of this ensemble, and alongside the larger east-west road in the farm complex perpendicular to the main road, is another ensemble of several buildings or groups of buildings: The first is a farm house (number 2a) facing the main road to its west, having a formally laid out garden section (number 2b) to its south-west and an enclosure of unknown function (number 2c) to its north-west. The second building is another farm house (number 3a) to the east of the first house and also facing the main road. Thirdly, from this house, alongside the centrally located north-south farm road west of the diary, is a row of small buildings (number 3b) that have most probably been farm workers' housing. The fourth building (number 4a) is a milking shed at the south-eastern extremity of the farm complex, and along a small north-south farm road there is a fifth building (number 5a) of unknown function, but surmised to have been the equipment store, with two cattle enclosures (number 5b and 5c) to the east of it.</p> <p>South of the main group of buildings described above, there is a large rectangular open surface which is the floor of a new building being constructed – from our knowledge of the farm today it is known that this is a housing and office/workshop complex. Slightly to the east of this adjacent the farm road there is a small structure (number 7a) of unknown function.</p> <p>Buildings that are still extant from this era (marked <u>blue</u> and <u>red</u> on the plan) are numbers 1a, 1b [Subsumed in a newer structure], 1d [possibly subsumed in the 1940s pumphouse], 2a, 3a, 4a and 5a. Building 6a was in its construction phase during 1937. Buildings currently not extant are marked up in <u>green</u> on the plan</p>	
<b>Dating</b>	
<p>The farm at this point in time seems to consist of buildings from 2 distinct phases, ie the original farmstead (marked <u>blue</u>), and subsequent buildings marked <u>red</u>).</p> <p>From the first assessment it is surmised that the milking shed (number 4a) was the original wagon house and store building of the farm, dating from the late 19<sup>th</sup> C, and that the house to its west (number 3a) could contain the core structure of the original farm house.</p> <p>The other buildings included in the above description probably all date from the 1935 building period to co-incide with the revival of the Jamiatul Ulama Transvaal [started 1923] in 1935 when a larger "Mia's Farm" [not the original farmstead] was established.</p>	



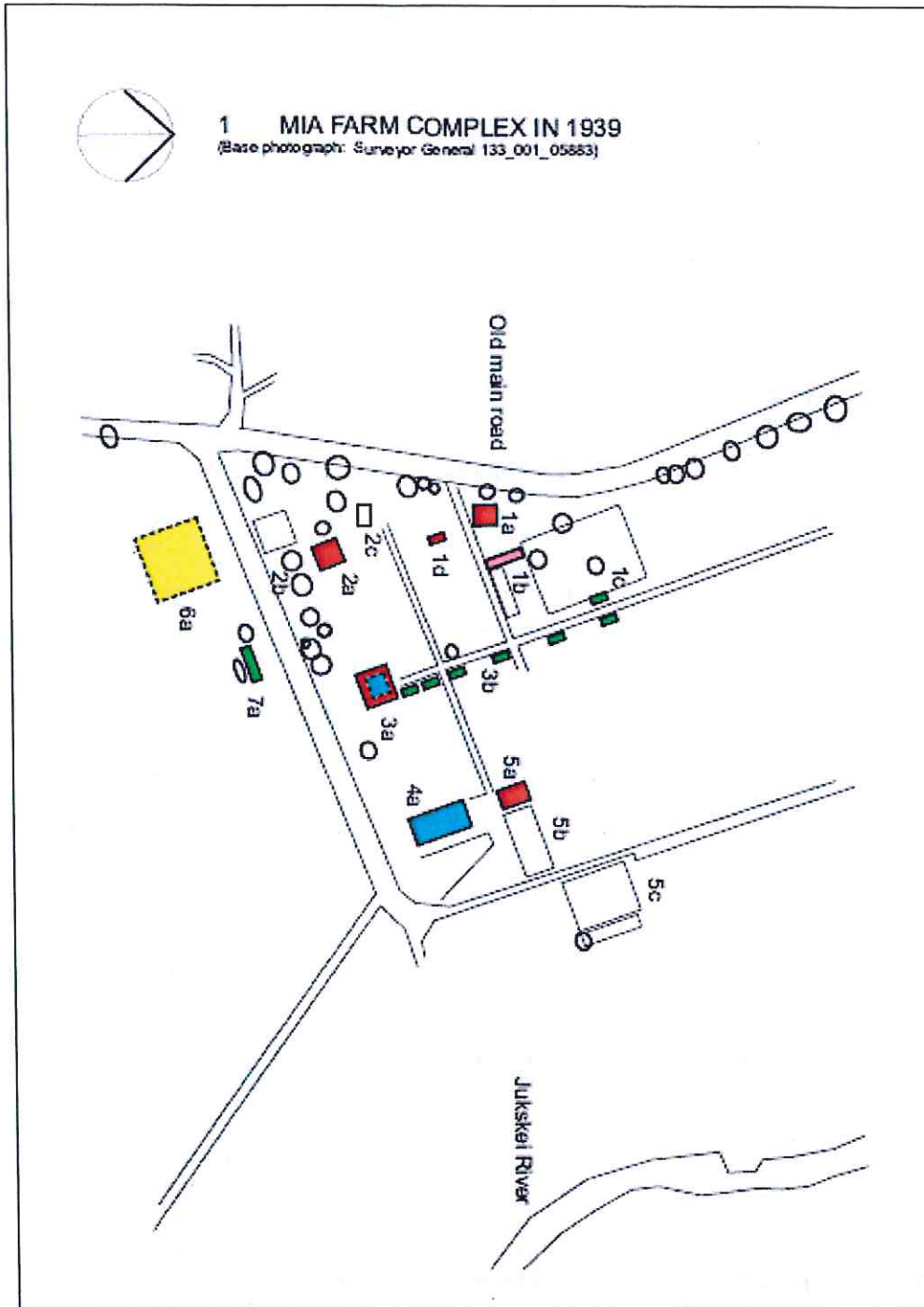
<b>ITEM NO 1: Old Waterval farmstead</b>			
<b>Description and discussion: The farm complex post-1939</b>			
<p>From the clue of the start of construction of building number 6a in 1939, it is surmised that a large group of new buildings were designed and constructed for the farm complex – a so called 2<sup>nd</sup> wave due to the increased needs of the Jamiatul Ulama. From an inspection of the architectural style and style markers of the buildings, it appears as if one architect was involved with a group of 3 buildings (marked <u>yellow</u> on the plan), and that another group of buildings are of a more utilitarian, industrial nature (marked <u>orange</u> on the plan). A map of this phase is included as Figure 2 (below).</p> <p>The first group of buildings show Art Deco and neo-classical influences, and are reminiscent of work done in <b>Italy</b> in the 1930/40's. The first building in this group is the already mentioned housing and office/workshop complex (number 6a). The combined function and design is of high architectural and socio-cultural value – a newer addition of a workshop on the flat concrete roof of the south part of the complex displays future evolution and <b>functional</b> needs of the farm, but mars this quality and original intent. A flour mill and workshop structure (number 5f) and office (number 5g) with details similar to the building 6a were added to the north-east extremity of the complex.</p> <p>The second group of buildings of a more utilitarian design nature includes what is deemed to be a large rectangular plastered brick workshop north of house number 3a, and a large face brick workshop north of the first-mentioned workshop. The other buildings of this group includes a stone masonry enclosure and stores (number 5e) just east of the wagon house turned milk-shed, as well as face brick stores (number 5di and 5dii) north and south of the equipment store.</p>			
<b>Later additions and alterations still classified as heritage resources</b>			
<p>Later additions include a water canal (dated 1950 on a paving block) diagonally across the site from the milk shed to the housing complex, with an accompanying double lane of palm trees which are now quite mature. A large stone walled cattle enclosure was added to the east of the stores number 5dii, within which the older enclosure 5c was subsumed.</p>			
<b>More recent additions not classified as heritage resources under the 60 year clause</b>			
<p>More recent additions include a large L-shaped roof structure which is used in the milking process, situated north of building 5e, and south of the large cattle enclosure 5c - The structure is well designed and compliments the ensemble of functional farm buildings.</p> <p>A store building in an Islamic vernacular style (a manner of building revived by architects of north Africa, in particular Egypt, <b>Morocco</b> and Tunisia) in the 1960s, was built just east of the milking shed. There is one other smaller structure in this style some ways south of the whole complex.</p> <p>A large industrial building was built just west of the flour mill (building number 5f)</p>			
<b>Setting</b>			
<p>The core of the Mia farm complex is currently situated on a gently sloping piece of Highveld land, east to and adjoining a dirt road running in a north-south direction and west of the Jukskei river, which here also runs in a north-south direction. The main gate is just south of a slight kink in the road. The dirt road, historically a main road, is situated just east of the current R55 tarred provincial road between Woodmead and Kyalami.</p>			
<b>Current heritage conservation status</b>			
<p>Because of the condition and quality of the buildings, the current heritage conservation status is medium to low. However, the intangible heritage significance (association with Mia family and the Institute) is medium to high.</p> <p>The initial significance assessment indicates that this farm complex</p> <ul style="list-style-type: none"> <li>• Has a large number of heritage resources which provide a unique insight of the origins and evolution of a very important family in the history of South Africa, from the time of the old Transvaal Republic to the present Democracy,</li> <li>• Components of it must be conserved and/or rehabilitated for re-use within a future town-planning development proposal.</li> <li>• The heritage value and significance must be derived of the totality of buildings, structures, boundaries, roads and vegetation, rather than for individual buildings or elements.</li> </ul>			
<b>Cultural significance</b>			
No	Criteria	Applicability	Rating
a	Importance in the community or pattern of history	Associated with Waterval Islamic Institute	High
b	Possession of uncommon, rare or endangered aspects of natural or cultural	None	Medium



CULTMATRIX CC

<b>ITEM NO 1: Old Waterval farmstead</b>			
	heritage		
c	Potential to yield information to understand the natural or cultural heritage	Oral history elements	Medium
d	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None	Low
e	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	None	Low
f	Importance in demonstrating a high degree of creative or technical achievement at a particular period	None	Low
g	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Waterval Islamic Institute	High
h	Strong or special association with the life and work of a person, group or organisation of importance in history	Mia family	High
i	History of slavery/labour	None	Low
j	Economic importance	Can be rehabilitated for other uses	Medium
<b>Impact assessment</b>			
The farmstead could be impacted upon negatively by the proposed development because of its extent and the perception that its heritage conservation status and cultural significance is low.			
<b>Summarised conservation indicators</b>			
<i>Age of property and protection status</i>			
Some of the buildings are older than 60 years and protected through the NHRA			
<i>Compelling/No reasons for conservation</i>			
Due to the heritage conservation status and cultural significance, there are compelling reasons to conserve the farmstead.			
<i>Conditions for further conservation/demolition</i>			
All buildings should be recorded before demolition and re-use. A Conservation Management Plan is necessary for enabling rehabilitation, adaptation and new uses of the site.			
<b>Legal requirements</b>			
Some buildings are protected by the NHRA since they are older than 60 years. Any authorisations for demolitions and other changes must be done by SAHRA in terms of Section 38(10) of the NHRA.			
<b>Summary of conservation management actions</b>			
Those extant resources that are deemed important for conservation, including the boundaries of the proposed heritage conservation area and the spaces between the buildings, are indicated on Figure 3 (map) in <u>purple</u> .			
<b>Summary of impact significance</b>			
<i>With mitigation</i>	Medium negative (implying recording and conservation of most important elements)		
<i>Without mitigation</i>	High negative (implying demolition without recording)		





**FIGURE 5: Farmstead layout 1938-1939**

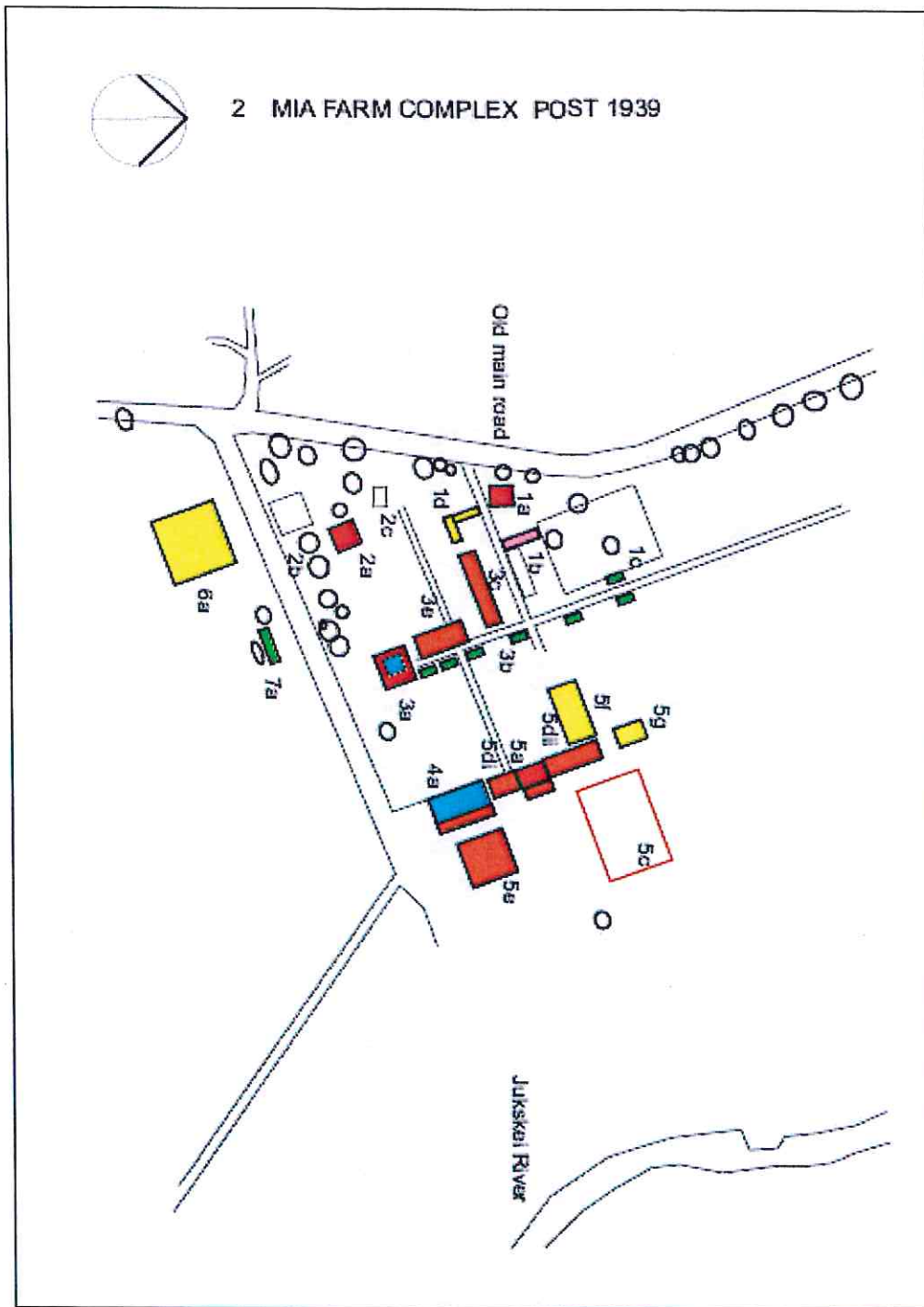


FIGURE 6: Farmstead layout post 1939



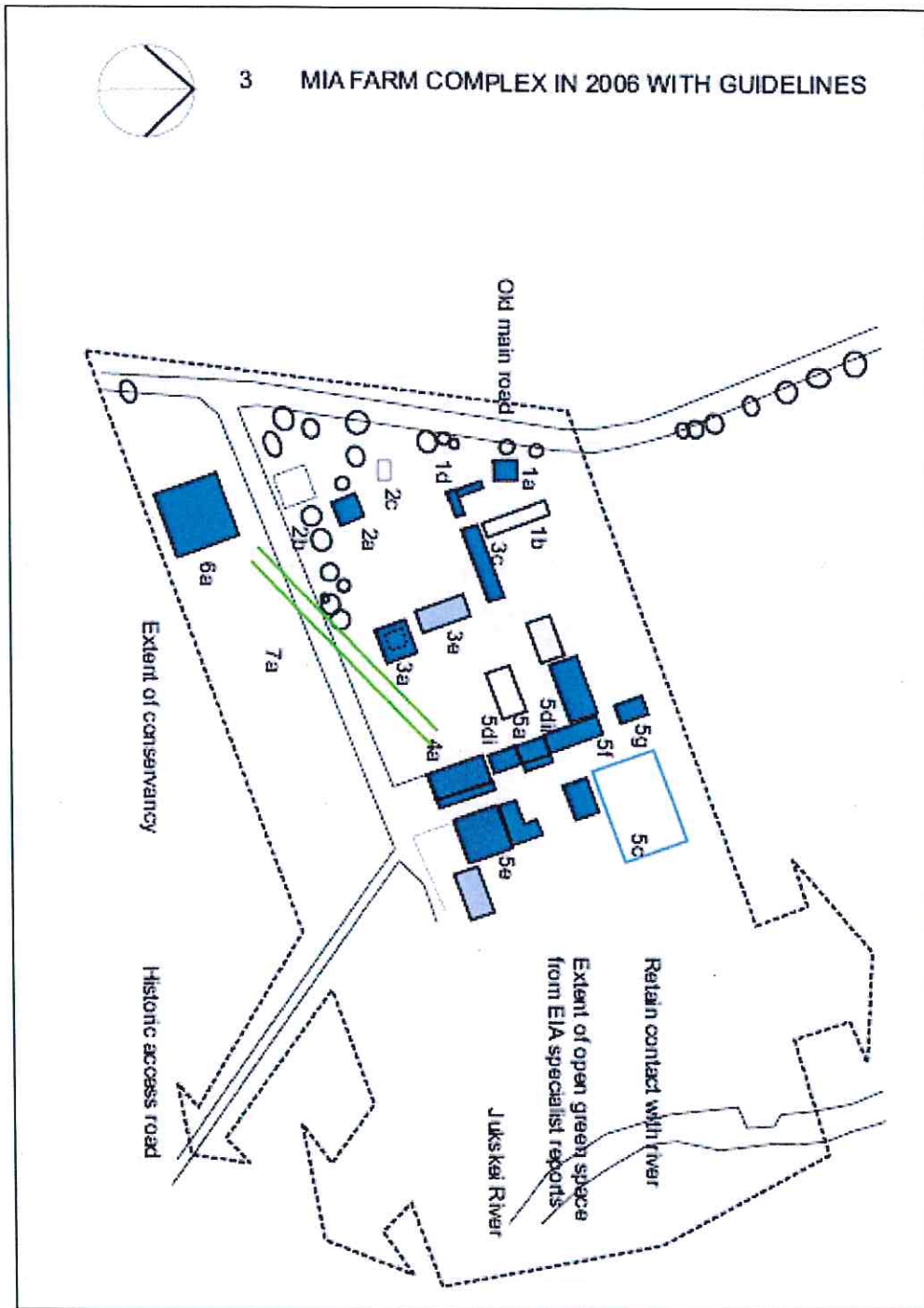
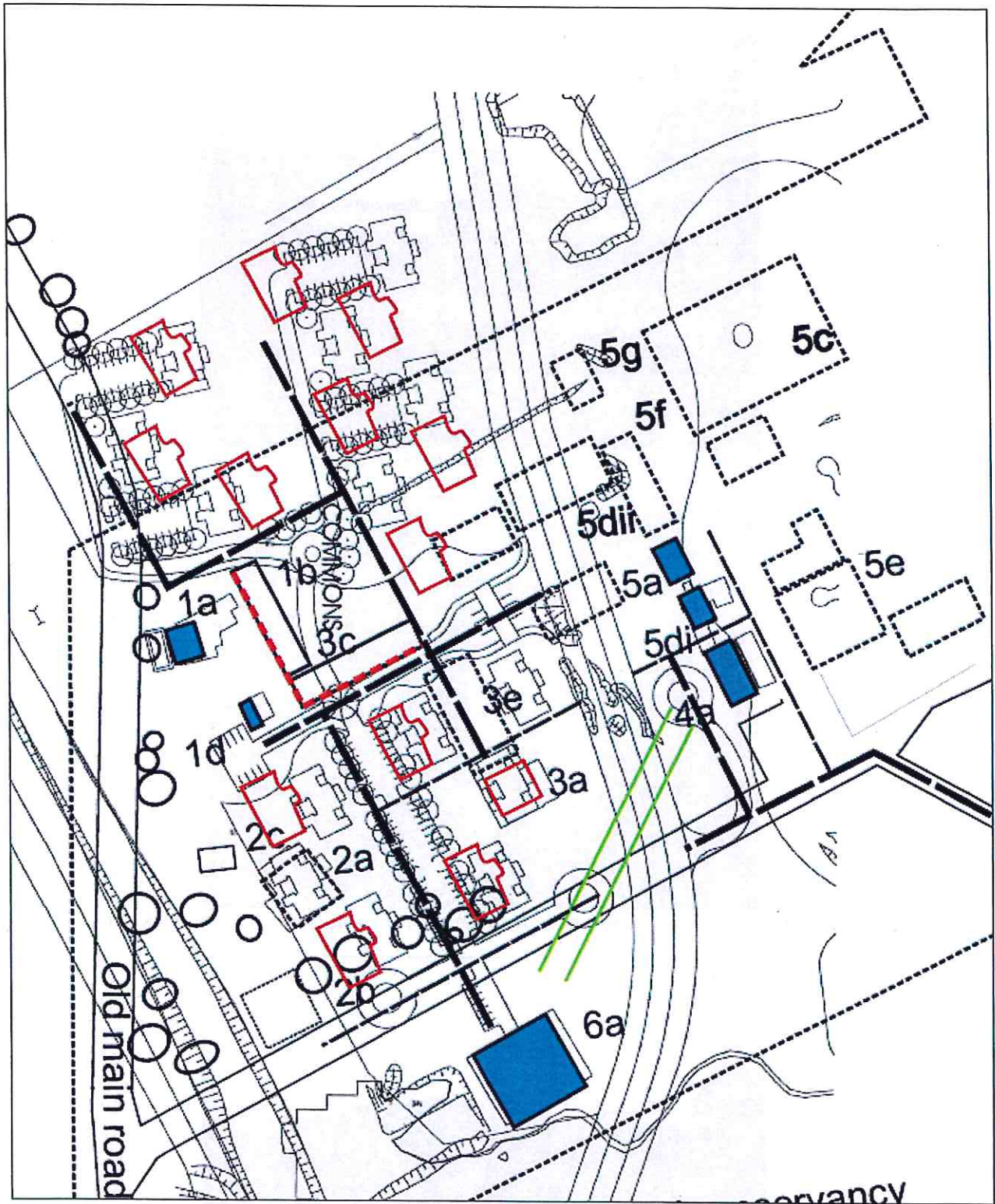


FIGURE 7: Original mitigation proposals



**FIGURE 8: Revised mitigation proposals. Buildings in blue will be preserved.**



CULTMATRIX CC



No 1a: Old farm house ( to be preserved)



No 1d: Pumphouse and reservoir (to be preserved), with No 3c (left): Face brick store



No 2a: Farmhouse

CULTMATRIX CC



No 3a: Farmhouse



No 3e





CULTMATRIX CC

No 4a: Old milking shed (to be preserved)

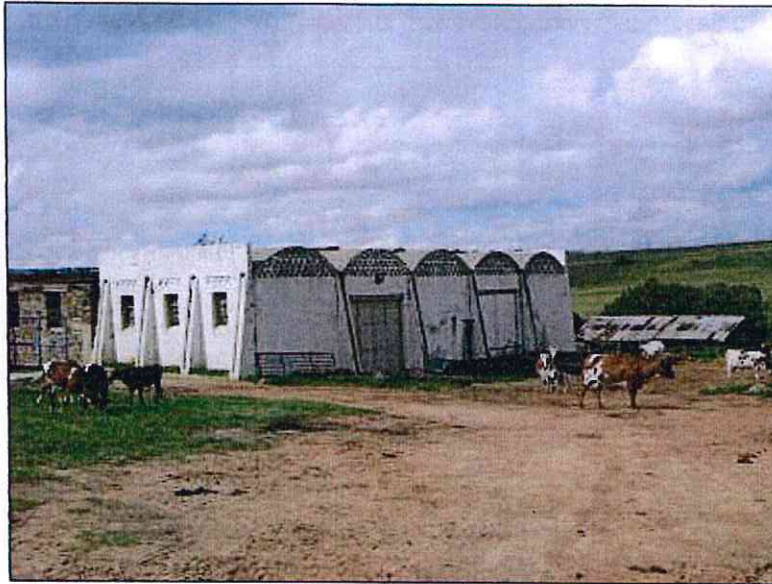


No 5a, front: Small historic building, unknown function  
No 5d(ii), background: Face brick stores (all to be preserved)

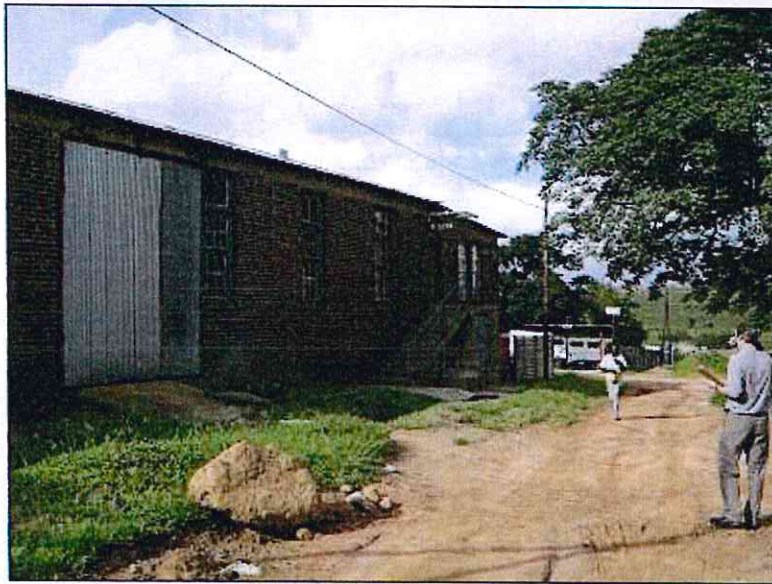


No 5c: Cattle enclosure

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No 5e: Store building



No 5f: Face brick shed





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No 6a: Housing and office/workshop complex (to be preserved)



Buildings 3a (left) and 3e (right)



Buildings 4a (centre) and 5e (right)





Buildings 5g (left) and 5f (right)

CULTMATRIX CC

<b>ITEM NO 2: Sewage treatment plant</b>			
Location	See map		
GPS coordinates	See map		
Original name	None		
Other reference	None		
Existing documentation	Presumably in municipal archives		
<b>Description and discussion: Original buildings</b>			
Sewage treatment plant consisting of a fenced-off area with offices, storerooms, laboratory, treatment ponds etc. Adjacent to it is a large, unused rectangular pond.			
<b>Description and discussion: Alterations to original buildings</b>			
None			
<b>Description and discussion: Additions to main buildings</b>			
None			
<b>Setting</b>			
Located near northern corner of development area, on open grassland			
<b>Current heritage conservation status</b>			
This is a modern insertion into the landscape and has no specific heritage value. Its heritage conservation status is low.			
<b>Cultural significance</b>			
No	Criteria	Applicability	Rating
a	Importance in the community or pattern of history	None	Low
b	Possession of uncommon, rare or endangered aspects of natural or cultural heritage	None	Low
c	Potential to yield information to understand the natural or cultural heritage	None	Low
d	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None	Low
e	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	None	Low
f	Importance in demonstrating a high degree of creative or technical achievement at a particular period	None	Low
g	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	None	Low
h	Strong or special association with the life and work of a person, group or organisation of importance in history	None	Low
i	History of slavery/labour	None	Low
j	Economic importance	Possibly	Medium
<b>Impact assessment</b>			
Due to its low cultural significance and heritage conservation value, the proposed development will have no negative impact on this site			
<b>Summarised conservation indicators</b>			
<b>Age of property and protection status</b>			
The plant probably dates back to the 1960s and does not fall under the 60-year protection clause of the NHRA			
<b>Compelling/No reasons for conservation</b>			
There are no compelling reasons for conserving the plant and incorporating it into the proposed development			
<b>Conditions for further conservation/demolition</b>			
Document before removal			



<b>ITEM NO 2: Sewage treatment plant</b>	
Legal requirements	
Document before removal	
Summary of management actions	
Document plant before removal	
Summary of impact significance	
<i>With mitigation</i>	Low
<i>Without mitigation</i>	Low
Photos	
	
	

CULTMATRIX CC

<b>ITEM NO 3: Cemetery</b>			
Location	Near sewage treatment plant		
GPS coordinates	S 26deg 00'40.4" E 28 deg 05'44.3"		
Original name	Unknown		
Other reference	None		
Existing documentation	None		
<b>Description and discussion: Original structures</b>			
Large cemetery with a number of adult and children's graves, presumably associated with the Waterval farm workers and their families and other residents on or near the farm. The dates on the tombstones reflect the period 1930s-1970s. The approximate number of graves is 70.			
<b>Description and discussion: Alterations to original structures</b>			
None			
<b>Description and discussion: Additions to structures</b>			
None			
<b>Setting</b>			
Located on high rocky area			
<b>Current heritage conservation status</b>			
Some of the graves appear to be looked after whilst other are derelict. In general the cemetery is overgrown. Its heritage conservation status is medium.			
<b>Cultural significance</b>			
No	Criteria	Applicability	Rating
a	Importance in the community or pattern of history	None	Low
b	Possession of uncommon, rare or endangered aspects of natural or cultural heritage	None	Low
c	Potential to yield information to understand the natural or cultural heritage	Oral information sources associated with living descendents	Medium
d	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None	Low
e	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	None	Low
f	Importance in demonstrating a high degree of creative or technical achievement at a particular period	None	Low
g	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	African farm workers living on or near Waterval	High
h	Strong or special association with the life and work of a person, group or organisation of importance in history	One of the graves is that of a bishop	High
i	History of slavery/labour	History of rural settlement in Midrand	Medium
j	Economic importance	None	Low
<b>Impact assessment</b>			
The proposed development will have a high negative impact on this site			
<b>Summarised conservation indicators</b>			
<i>Age of property and protection status</i>			
The site is protected in terms of the NHRA			
<i>Compelling/No reasons for conservation</i>			
It would seem impractical to conserve the cemetery in situ and it is therefore recommended to relocate the graves to an existing municipal cemetery			
<i>Conditions for further conservation/demolition</i>			
Record before relocation			



**ITEM NO 3: Cemetery**

**Legal requirements**

The NHRA and its Regulations provide for the protection and relocation of graves and the processes associated with it

**Summary of management actions**

Document graves and setting of cemetery  
Relocate cemetery

**Summary of impact significance**

*With mitigation* High positive (relocation of graves)

*Without mitigation* High negative (inappropriate incorporation of graves in golf course development)

**Photos**



CULTMATRIX CC

<b>ITEM NO 4: Water furrow</b>			
Location	See map (linear feature)		
GPS coordinates	See map (linear feature)		
Original name	Unknown		
Other reference	None		
Existing documentation	Maps and aerial photos		
<b>Description and discussion: Original structure</b>			
This historic water furrow begins close to the rapids in the Jukskei River (near the N 1) and runs west and more or less parallel to the river, joining a small tributary in the north-western corner of the development area.			
<b>Description and discussion: Alterations to original structure</b>			
None			
<b>Description and discussion: Additions to main structure</b>			
None			
<b>Setting</b>			
Runs close to river bank on grassy plain of farm			
<b>Current heritage conservation status</b>			
The furrow is in use and well maintained and its heritage conservation status is high			
<b>Cultural significance</b>			
No	Criteria	Applicability	Rating
a	Importance in the community or pattern of history	None	Low
b	Possession of uncommon, rare or endangered aspects of natural or cultural heritage	None	Low
c	Potential to yield information to understand the natural or cultural heritage	None	Low
d	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None	Low
e	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	The furrow creates an attractive water landscape with scenic qualities	Medium
f	Importance in demonstrating a high degree of creative or technical achievement at a particular period	Irrigation system designed for farm	Medium
g	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	None	Low
h	Strong or special association with the life and work of a person, group or organisation of importance in history	None	Low
i	History of slavery/labour	None	Low
j	Economic importance	Can be used for farming and recreation	High
<b>Impact assessment</b>			
The proposed development could have a negative impact on the furrow if the golf courses and residential erven do not take it into account			
<b>Summarised conservation indicators</b>			
<i>Age of property and protection status</i>			
The furrow is older than 60 years (appears on 1938 aerial photo) and is protected in terms of the NHRA			
<i>Compelling/No reasons for conservation</i>			
The furrow could contribute to the scenery and can be used for creating water features and irrigating golf courses and gardens. There are compelling reasons to incorporate it into the development design. This has been agreed to by the developers.			
<i>Conditions for further conservation/demolition</i>			
Document water furrow			



<b>ITEM NO 4: Water furrow</b>	
Legal requirements	
Protected in terms of NHRA	
Summary of management actions	
Document furrow (route and photos) before any alterations Incorporate it into design of development	
Summary of impact significance	
<i>With mitigation</i>	Low (incorporate into design and conserve)
<i>Without mitigation</i>	High negative (demolish)
Photos	



CULTMATRIX CC

<b>ITEM NO 5: Dams and weirs in Jukskei River</b>			
Location	See map (linear feature)		
GPS coordinates	See map (linear feature)		
Original name	None		
Other reference	None		
Existing documentation	None		
<b>Description and discussion: Original structures</b>			
Series of dams, reservoirs and weirs in the river designed to stem the flow of water and create reservoirs for irrigation purposes			
<b>Description and discussion: Alterations to original structures</b>			
None			
<b>Description and discussion: Additions to structures</b>			
A large kind of lookout building stands above a circular reservoir			
<b>Setting</b>			
Set in river landscape with riverine vegetation			
<b>Current heritage conservation status</b>			
Some of the dams and weirs appear to be functioning. The condition is fair. The heritage conservation status of this system is medium. They support biological diversity and two large water monitors were observed in one of the reservoirs			
<b>Cultural significance</b>			
No	Criteria	Applicability	Rating
a	Importance in the community or pattern of history	None	Low
b	Possession of uncommon, rare or endangered aspects of natural or cultural heritage	None	Low
c	Potential to yield information to understand the natural or cultural heritage	Oral information from residents of the farm as to how the system originated	Medium
d	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None	Low
e	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	None	Low
f	Importance in demonstrating a high degree of creative or technical achievement at a particular period	Part of irrigation system designed for farm	Medium
g	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	None	Low
h	Strong or special association with the life and work of a person, group or organisation of importance in history	None	Low
i	History of slavery/labour	None	Low
j	Economic importance	Can be used for farming and recreation	High
<b>Impact assessment</b>			
It is unlikely that the proposed development will have a negative impact on these structures since they form part of the river system that must be protected			
<b>Summarised conservation indicators</b>			
<i>Age of property and protection status</i>			
Some of the weirs are older than 60 years (appear on 1928 aerial photo) and are therefore protected by the NHRA			
<i>Compelling/No reasons for conservation</i>			
Because these structures contribute to the scenery and wildlife of the area, there are no compelling reasons for demolition. However, should hydrological and biodiversity studies show the opposite, Cultmatrix will support a conditional authorisation for demolition			
<i>Conditions for further conservation/demolition</i>			
Document (maps, plans, photos) before alterations or demolition			



**ITEM NO 5: Dams and weirs in Jukskei River**

**Legal requirements**

Parts are protected by the NHRA

**Summary of management actions**

Document weirs, dams, reservoirs and other structures  
 Demolish recent unsightly additions  
 Repair existing structures  
 Incorporate into development design  
 Provide for river management in terms of Water Act and other legislation (implying alterations)

**Summary of impact significance**

<i>With mitigation</i>	Low (document and incorporate into design)
<i>Without mitigation</i>	High negative (destruction without documentation)

**Photos**



CULTMATRIX CC

<b>ITEM NO 6: Rapids in Jukskei River</b>			
Location	See map		
GPS coordinates	S 26 deg 01'34.2" E 28 deg 05'58.1"		
Original name	The "Waterval"		
Other reference	Unknown		
Existing documentation	Unknown		
<b>Description and discussion: Original site</b>			
Small rapids in river with river water running over sloping granite surface			
<b>Description and discussion: Alterations to original site</b>			
None			
<b>Description and discussion: Additions to site</b>			
A weir was constructed just above the rapids for purposes of feeding the furrow, which starts at this point			
<b>Setting</b>			
Set in scenic riverine vegetation close to N 1			
<b>Current heritage conservation status</b>			
The rapids are functioning and from a cultural and biodiversity perspective their heritage conservation value is high			
<b>Cultural significance</b>			
No	Criteria	Applicability	Rating
a	Importance in the community or pattern of history	Gave name to farm	High
b	Possession of uncommon, rare or endangered aspects of natural or cultural heritage	Intact river feature in urban environment	High
c	Potential to yield information to understand the natural or cultural heritage	Biodiversity studies	High
d	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None	Low
e	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	Scenic area	High
f	Importance in demonstrating a high degree of creative or technical achievement at a particular period	None	Low
g	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	None	Low
h	Strong or special association with the life and work of a person, group or organisation of importance in history	None	Low
i	History of slavery/labour	None	Low
j	Economic importance	Feeds water furrow	Medium
<b>Impact assessment</b>			
The proposed development could have a high negative impact on this important feature without careful design and layout			
<b>Summarised conservation indicators</b>			
<i>Age of property and protection status</i>			
Protected in terms of NHRA as part of natural heritage and as intangible heritage feature (place name)			
<i>Compelling/No reasons for conservation</i>			
Because of its sensitivity, biodiversity, intangible heritage significance and source for the furrow, there are compelling reasons for conserving it			
<i>Conditions for further conservation/demolition</i>			
Proper biodiversity studies; document weir and furrow start			



**ITEM NO 6: Rapids in Jukskei River**

Legal requirements

Protected in terms of environmental and heritage legislation

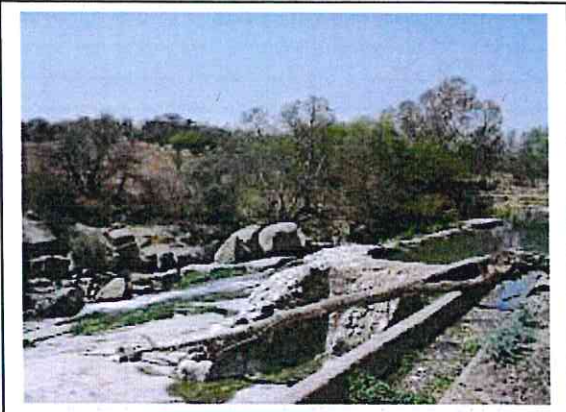
Summary of management actions

Document structures  
 Make site accessible to residents of golf course  
 Maintain site  
 Incorporate into development design  
 Site interpretation

Summary of impact significance

With mitigation	High positive (conservation and documentation)
Without mitigation	High negative (destruction without documentation and research)

Photos



CULTMATRIX CC

<b>ITEM NO 7: Tree lane</b>			
Location	See map (linear feature)		
GPS coordinates	See map (linear feature)		
Original name	None		
Other reference	None		
Existing documentation	None		
<b>Description and discussion: Original site</b>			
Lane of pine trees running along old track on south side of river. This track appears on the 1938-39 aerial photo and on old farm maps and connected the farmstead directly with the old Pretoria-Johannesburg road. It was presumably the main access to the farm.			
<b>Description and discussion: Alterations to original site</b>			
In places the pines have disappeared, leaving gaps in the lane			
<b>Description and discussion: Additions to site</b>			
None			
<b>Setting</b>			
Rural setting with Highveld grass plains			
<b>Current heritage conservation status</b>			
The pines are mature and some of them show signs of dying. In places the lane has been broken where trees have disappeared. Its heritage conservation status is low to medium, since they still are a landscape feature.			
<b>Cultural significance</b>			
No	Criteria	Applicability	Rating
a	Importance in the community or pattern of history	None	Low
b	Possession of uncommon, rare or endangered aspects of natural or cultural heritage	None	Low
c	Potential to yield information to understand the natural or cultural heritage	None	Low
d	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None	Low
e	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	Landscape feature	Medium
f	Importance in demonstrating a high degree of creative or technical achievement at a particular period	None	Low
g	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	None	Low
h	Strong or special association with the life and work of a person, group or organisation of importance in history	None	Low
i	History of slavery/labour	None	Low
j	Economic importance	None	Low
<b>Impact assessment</b>			
The impact of the proposed development could be where the lane cannot be incorporated in the layout and must be removed.			
<b>Summarised conservation indicators</b>			
<i>Age of property and protection status</i>			
None			
<b>Compelling/No reasons for conservation</b>			
Because the trees are ageing and the lane is incomplete, there are no compelling conservation reasons. However, we recommend retaining the memory of the lane in the landscape design if possible. The developers has already provided for this.			
<b>Conditions for further conservation/demolition</b>			
Document before removal			



**ITEM NO 7: Tree lane**

Legal requirements

This feature is older than 60 years and is protected by the NHRA.

Summary of management actions

Document lane and road  
 Incorporate memory of the place into new landscape design

Summary of impact significance

*With mitigation*      Low

*Without mitigation*      Low


Photos



CULTMATRIX CC

<b>ITEM NO 8: Ruins</b>			
Location	On open plains east of N 1 (2 sites) and at base of cell phone mast near sewage treatment plant		
GPS coordinates	S 26 deg 02'30.9" E 28 deg 07'04.0" S 26 deg 02'42.2" E 28 deg 07'04.7" S 26 deg 02'00.7" E 28 deg 07'40.4" S 26 deg 01'59.5" E 28 deg 07'51.4" S 26 deg 02'05.3" E 28 deg 08'04.8"		
Original name	Unknown		
Other reference	None		
Existing documentation	Some appear on 1938 aerial photo		
<b>Description and discussion: Original building</b>			
Ruins of rectangular mud brick dwellings, presumably occupied in the past by farm workers and tenants elsewhere on the farm. Middens (rubbish dumps) occur at all of them. There are about 4-5 individual ruins that could be identified.			
<b>Description and discussion: Alterations to original building</b>			
None			
<b>Description and discussion: Additions to main building</b>			
None			
<b>Setting</b>			
East of N 1: On open plains and near main Allendale road. West of N 1: At cell phone mast. Other ruins have also been observed but it is uncertain of these fall in the development area.			
<b>Current heritage conservation status</b>			
These structures are ruins and their conservation value is thus low			
<b>Cultural significance</b>			
No	Criteria	Applicability	Rating
a	Importance in the community or pattern of history	None	Low
b	Possession of uncommon, rare or endangered aspects of natural or cultural heritage	None	Low
c	Potential to yield information to understand the natural or cultural heritage	None	Low
d	Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	None	Low
e	Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	None	Low
f	Importance in demonstrating a high degree of creative or technical achievement at a particular period	None	Low
g	Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	None	Low
h	Strong or special association with the life and work of a person, group or organisation of importance in history	None	Low
i	History of slavery/labour	Associated with farm workers and tenants	Medium
j	Economic importance	None	Low
<b>Impact assessment</b>			
The proposed development will have a low impact due to the low significance and conservation value of these sites			
<b>Summarised conservation indicators</b>			
<i>Age of property and protection status</i>			
Some structures are probably older than 60 years (appear on 1938 aerial photo) and are protected by the NHRA			
<i>Compelling/No reasons for conservation</i>			
Due to the low significance and conservation value, there are no compelling reasons to conserve the ruins			
<i>Conditions for further conservation/demolition</i>			
Document larger and more visible ruins (plans, photos) before demolition. Sampling of middens is recommended in order to retrieve any interesting artefacts associated with the history of the farm			



<b>ITEM NO 8: Ruins</b>	
Legal requirements	
Sampling requires an archaeological excavation permit from SAHRA. Authorisation of demolition of old structures is subject to submission of documentation.	
Summary of management actions	
Document structures Demolish Sample middens	
Summary of impact significance	
<i>With mitigation</i>	Low
<i>Without mitigation</i>	Low
Photos	
	

**ANNEXURE 2: TABLE SUMMARISING ANTICIPATED IMPACTS ON HERITAGE RESOURCES**

ITEM	NATURE OF IMPACT	EXTENT	SITE NO'S	SEVERITY RATING (Intensity factor x duration factor = value = rating)			PROBABILITY RATING	IMPACT SIGNIFICANCE RATING (Severity rating x Probability rating)	RISK CONS	RECOMMENDED MANAGEMENT INTERVENTIONS	
				INTENSITY	DURATION	VALUES					
1	Loss of historical fabric and layering due to demolition, alteration, new uses, insertions, additions	Site	1,4,5,7	Factor 4	Factor 4	16	5	4	20 = High	Neg	Conserve and incorporate in new development
2	Loss of urban form due to changed subdivision patterns and form of new development	Local	1,4,5,7	Factor 4	Factor 2	8	3	4	12 = Medium to high	Neg	Conserve and incorporate in new development
3	Loss of social fabric due to urban renewal	Local	None	Factor 1	Factor 2	2	2	3	6 = Low	None	None
4	Loss of historical patterns of public access and use due to privatisation of public spaces or controlled public access	Site	None	Factor 1	Factor 2	2	2	2	4 = Low	None	None



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				INTENSITY	DURATION	VALUES					
5	Loss of historical architectural character due to incompatible new treatment and use	Site	1	Factor 2	Factor 4	8	3	4	12 = Medium to high	Neg	Conserve and incorporate in new development
6	Loss of rural landscape pattern due to new pattern of subdivision and land use	Site	1,4,5,7	Factor 4	Factor 4	16	5	4	20 = High	Neg	Incorporate into memory of new layout
7	Loss of scenic landscape and network due to intrusive new infrastructure and severance of linkage routes	Local	None	Factor 4	Factor 5	20	5	5	25 = Very high	Neg	Mitigate negative visual impact, retain green zones/corridors, plant vegetation
8	Incompatibility of new development related to urban form, rural development, architectural character	Local	1,4,5,7	Factor 2	Factor 2	4	2	3	6 = Low	None	Incorporate into memory of new layout
9	Displacement of historical communities	Site	None	Factor 1	Factor 2	2	2	2	4 = Low	None	None (there are no historical communities affected)

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ITEM	NATURE OF IMPACT	EXTENT	SITE NO'S	SEVERITY RATING (Intensity factor x duration factor = value = rating)			PROBABILITY RATING	IMPACT SIGNIFICANCE RATING (Severity rating x Probability rating)	RISK CONS	RECOMMENDED MANAGEMENT INTERVENTIONS
				INTENSITY	DURATION	VALUES				
10	Loss of important historical features/elements including structures, planting patterns, furrows, open space networks related to upgrading and renewal schemes	Local	1,3,4,5,7	Factor 4	Factor 4	16	4	16 = Medium to high	Neg	Incorporate into memory of new layout, conserve and incorporate in new development
11	Visual impacts associated with siting and design of new facilities	Local	None	Factor 4	Factor 4	20	4	20 = High	Neg	Mitigate negative visual impact, retain green zones/corridors, plant vegetation
12	Impacts on buried structures and deposits related to new building work and infrastructure	Site	1,4,5	Factor 2	Factor 2	4	3	6 = Low to medium	Neg	Monitor uncovering of buried sites and objects
13	Loss of relationship with setting related to inappropriate siting of new development	Local	1,4,7	Factor 2	Factor 4	8	4	12 = Medium	Neg	Mitigate negative visual impact, retain green zones/corridors, plant vegetation, Incorporate into memory of new layout



ITEM	NATURE OF IMPACT	EXTENT	SITE NO'S	SEVERITY RATING (Intensity factor x duration factor = value = rating)			PROBABILITY RATING	IMPACT SIGNIFICANCE RATING (Severity rating x Probability rating)	RISK CONS	RECOMMENDED MANAGEMENT INTERVENTIONS	
				INTENSITY	DURATION	VALUES					
14	Removal of historical fabric and meanings; misinterpretations of past associations and tendency to over-restore or reconstruct sites to earlier states	Site	1	Factor 2	Factor 5	10	4	3	12 = Medium	Neg	Conserve and rehabilitate/adapt historic structures
15	Different values in interpretation of heritage	Local	1,3,4,5,7,8	Factor 1	Factor 2	2	2	2	4 = Low	None	Public participation process for HIA
16	Disturbance of human remains in unmarked locations (unpredictability of presence)	Site	None	Factor 1	Factor 2	2	2	3	6 = Low	Neg	Monitor remains during construction work
17	Loss of human dignity associated with disturbance of human remains	Site	None	Factor 1	Factor 2	2	2	3	6 = Low	Neg	Monitor remains during construction work
18	Loss of respect for religious affiliations and practices	Site	3	Factor 2	Factor 3	6	3	2	6 = Low	Neg	Public participation process as part of HIA
19	Inappropriate memorialisation of human remains	Site	None	Factor 1	Factor 2	2	2	2	4 = Low	None	None

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ITEM	NATURE OF IMPACT	EXTENT	SITE NO'S	SEVERITY RATING (Intensity factor x duration factor = value = rating)			PROBABILITY RATING		IMPACT SIGNIFICANCE RATING (Severity rating x Probability rating)	RISK CONS	RECOMMENDED MANAGEMENT INTERVENTIONS
				INTENSITY	DURATION	VALUES	RATING				
20	Conflicting interpretations of events due to range of value systems	Local	None	Factor 1	Factor 2	2	2	4 = Low	None	Public participation	
21	Over-exploitation of natural resources associated with traditional uses	Site	None	Factor 1	Factor 2	2	2	4 = Low	None	None	
22	Visual intrusion of new development in historical spaces, axes, view corridors	Local	1,4,5,7	Factor 4	Factor 4	8	3	20 = Very high	Neg	Conserve memory of landscape patterns in new layout	
23	Loss of historical context due to urbanisation	Site	1,7	Factor 4	Factor 3	12	4	16 = High	Neg	Conserve memory of landscape patterns in new layout	
24	Inappropriate changes in use in contrast to regional character	Local	None	Factor 2	Factor 2	4	2	8 = Medium	Neg	Conserve and adapt farmstead to retain memory of original function	

**STANDARDIZED SET OF CONVENTIONS USED TO ASSESS THE IMPACT OF PROJECTS ON INDIVIDUAL HERITAGE FEATURES**

**Category of heritage significance of feature**

One or more of the categories (a) to (i) in terms of Section 3(3) of the NHRA

From a heritage perspective there should be a distinction between significance embedded in the physical fabric, or in associations with events or persons, or in the experience of the place.



**Conservation value of heritage feature (individual)**

Worth, conservation utility, and desirability to conserve: low, medium, high

**Duration of the impact**

- Short term

1-5 years  
Factor 2

- Medium term

5-10 years  
Factor 3

- Long term

Risk will only cease after the operational life of the activity, either because of natural processes or by human intervention  
Factor 4

- Permanent (irreversible)

Mitigation, either by natural process or by human intervention, will not occur in such a way that the risk can be considered transient  
Factor 5

**Extent of the impact**

- On a site scale (not beyond the development)
- On a local scale (suburb, town)
- On a metropolitan or regional scale
- On a national or international scale

**Impact significance rating**

This is calculated by multiplying the **severity rating** with the **probability rating**.

The impact significance factor should influence the development project as described below.

LEVEL	RATING	POSITIVE RISK CONSEQUENCE	NEGATIVE RISK CONSEQUENCE
Low	4-6	No influence on proposed development	No influence on proposed development
Medium	7-12	Proposed development should be approved	Proposed development should be mitigated or mitigation measures should be formulated before it can be approved
High	13-18	Points towards a decision to approve the development and with	Points towards a decision to terminate development proposal or to formulate and

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	enhancement in final design	perform mitigation to reduce significance level to at least low
Very high	19-25 and above	The development should be approved If mitigation cannot be effectively implemented the development proposal should be terminated

**Intensity of impact**

- Low  
Functions and processes of natural or human origin are not affected and only minor risks may occur  
Factor 1
- Medium  
Natural or heritage environment is affected but functions and processes of natural or human origin can continue through often in an altered manner  
Factor 2
- High  
Natural or heritage environment is affected to the extent that functions and processes of natural or human origin will temporarily or permanently cease  
Factor 4

**Legal requirements:**

Specific legislation and permit requirements that potentially could be infringed upon by the proposed project, if mitigation is necessary.

**Nature of the impact**

Impact of the activity (development) on a heritage resource with indications about its positive and/or negative effects. The statement of significance informs it. The nature of the impact may be historical, aesthetic, social, linguistic, architectural, intrinsic, architectural, intrinsic, social, linguistic, architectural, contextual (visual or non-visual) or a combination of the above.

**Probability of the impact**

Probability describes the likelihood of the risk actually occurring and is rated as follows:

- Improbable  
Low possibility of risk to occur either because of design or historic experience  
Rating 2
- Probable  
Prominent possibility that risk will occur  
Rating 3
- Highly probable  
Most likely that risk will occur  
Rating 4



- Definite

Risk will occur regardless of any prevention measures  
Rating 5

**Recommended management action:**

For each impact, the recommended practically attainable mitigation actions that would result in a measurable reduction of the impact must be identified. This is expressed according to the following:

1. Avoidance: Preserve feature at all costs and restore/rehabilitate/enhance it together with interpretation
2. Mitigation: Preserve feature if possible, otherwise salvage excavation and/or documentation/recording before demolition/alteration, followed by preserving its memory in design and scale of development
3. None: No further action required

**Severity rating**

The severity rating is calculated from the multiplying the **intensity factor** with the **duration factor**, e.g. 2 x 3 = 6 (factor).

RATING	FACTOR
Low severity: rating = 2	Calculated values 2 to 4
Medium severity: rating = 3	Calculated values 5 to 8
High severity: rating = 4	Calculated values 9 to 12
Very high severity: rating = 5	Calculated values 13 to 16 and more
Severity factors below 3 indicate no risk	