

ARCHITECTURAL ASSESSMENT OF HISTORICAL MINE MANAGEMENT OFFICE BUILDING AT VOORSPOED MINE, KROONSTAD (FREESTATE PROVINCE)



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EXECUTIVE SUMMARY

General

The building is located on a historic site that has been redundant for almost 100 years: the site is located on the farm Voorspoed and the mine is named after the farm. The farm is known for the presence of a kimberlite pipe from which the mining company De Beers extracts diamonds. The building is older than 100 years but due to being redundant has deteriorated and decayed.

Findings

Even though the building is of historic, architectural and contextual significance, its location on the rim of the open cast mine where blasting with explosives is done makes it impossible to protect the building in situ. The structural integrity of the building has deteriorated to the extent that the building is slowly disintegrating due to movement in the walls, deterioration of the building materials and loss of building elements. The most detrimental activity that would eventually cause the collapse of the building is the frequent blasting in the mining pit about 40m from the building.

Recommendations

The building may be demolished and the proposed development may continue on the following conditions:

1. The building must be properly recorded prior to demolition: (a) photographically recorded and described according to standard architectural vocabulary; (b) measured drawings of the floor plan, elevations and essential architectural elements and details; (c) the information must be compiled in a report and (d) included into the submission to the PHRA-Freestate as part of application for a demolition permit.

CONTENTS

1. BRIEF	
2. AIM OF THE STUDY	
3. ASSUMPTIONS AND CONDITIONS	
4. GEOGRAPHIC AREA OF THE STUDY	
5. METHODOLOGY	
6. FINDINGS	
Section 38(3) (a) Identification and mapping of all heritage resources impacted on in the area affected	
Section 38(3) (b) Significance of the significance of such resources in terms of the heritage assessment criteria set out in Section 692) or prescribed in Section 7	
6.2.1. Significance criteria in terms of Section 3(3) of the National Heritage Resources Act.	
6.2.2 Significance criteria in terms of historical, artefactual and spatial significance	
Section 38(3) (c) An assessment of the impact of the development on such heritage resources	
Section 38(3) (d) Evaluation of the impact of the development on heritage resources relative to the sustainable economic benefits to be derived from the development	
Section 38(3) (e) The results of consultation with the communities affected by the proposed development and other interested and affected parties.....	
Section 38(3)(f) If heritage resources will be adversely affected by the proposed development, the consideration of alternatives.	
Section 38(3)(g) Plans for mitigation of any adverse effects during and after completion of the proposed development.	
7. RECOMMENDATIONS	
8. REFERENCES	
9. ACKNOWLEDGEMENTS	

GLOSSARY OF TERMS

Study Area – refers to the entire area to be developed as indicated on the scale drawings by the client.

Stone Age – The first and oldest part of human history is the Stone Age that is associated with the appearance of early humans between 3–2 million years ago. Stone Age people were hunters, gatherers and scavengers who did not settle in permanent settlements. Places associated with these humans are determined by identifying stone tools that have been preserved in the landscape.

Early Stone Age: 2 000 000– 150 000 Before Present (BP)

Middle Stone Age: 150 000 – 30 000 BP

Later Stone Age: 30 000 – until c. AD 200

Iron Age – A period covering the last 1800 years, when an altered lifestyle was introduced to some geographic areas in southern Africa. During this period villages were established, domesticated crop types such as sorghum, millet and beans were cultivated and several groups herded cattle, sheep and goats. They spoke early variations of the Bantu language and manufactured iron objects.

Early Iron Age: AD 200 – AD 1 000

Late Iron Age: AD 1 000 – AD 1830

Historical period – Since the arrival of white settlers – c AD 1652 (Southern parts of South Africa and AD 1840 (north of the Vaal River)

Cultural significance – According to the ICOMOS Burra Charter cultural significance means ‘*aesthetic, historic, scientific or social value for past, present or future generations.*

Aesthetic value – Criteria considered for this category may include the form, scale, colour, texture and material of the fabric, the smells and sounds associated with the place and its use.

Historic value – Historic value encompasses the history of aesthetics, science and society and therefore to a large extent underlies all of the terms used for evaluation. A place may have historic value because it has influenced or has been influenced by an historic figure, event, phase or activity. The significance will be greater where evidence of the association or event survives in situ or where the settings are substantially in tact than where it has been changed or evidence does not survive.

Scientific value – The scientific or research value of a place will depend on the importance of the data involved, on its rarity, quality or representativeness and on the degree to which the place may contribute further substantial information.

Social value – Social value embraces the qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group.

Abbreviations

EIA– Environmental Impact Assessment

EIA – Early Iron Age

ESA – Early Stone Age

LIA – Late Iron Age

LSA – Late Stone Age

MSA – Middle Stone Age

NASA – National Archives of South Africa

NHRA – National Heritage Resources Act

PHRA – Provincial Heritage Resources Agency

SAHRA – South African Heritage Resources Agency

1. BRIEF

The assessment of the historic mine management office building of the Voorspoed Diamond Mine, Kroonstad.

2. AIM OF THE STUDY

*To identify aspects and elements of the building that may indicate its exceptional heritage significance.

*To evaluate any heritage aspects or elements of the building according to the criteria set out by the National Heritage Resources Act (NHRA) and any other refined criteria within the ambit and spirit of 'cultural significance'.

*To make recommendations regarding the future of the building in terms of protection, demolition and appropriate memorialisation.

3. ASSUMPTIONS AND CONDITIONS

*During a previous phase of the Heritage Impact Assessment (HIA) process for this development, the building was assessed and the appropriate recommendations were made.

*This is not a Heritage Impact Assessment (HIA) report but a specialist report to the HIA report focusing only on assessing the architectural heritage significance of the building excluding all other heritage elements that may occur on the site or anywhere else in the area impacted on by the development.

4. GEOGRAPHIC AREA OF THE STUDY

The building is located on the farm Voorspoed in the Kroonstad district (Free State Province) where DeBeers is currently developing the Kimberlite geological structure in order to extract diamonds from this formation. The building is the last of the manmade structures that have remained on the site after the first stint of mining during the period 1902 to 1909 by the same landowner and mining group.

5. METHODOLOGY

*An introductory desk study investigation was done on the history of the farm and mine. No information could be salvaged on the history of the building and this aspect of the heritage study remains scanty and without any proper historical framework to determine a chronology of events regarding and associated with the history of the building.

*The site was visited and investigated on foot. All the individual 'offices' and rooms were investigated.

*Photographs were taken for report purposes (and not for recording purposes).

*No detail structural analysis (determining structural movement, moist penetration, insect infestation etc) was done and no samples of building material were taken for investigation or for off-site analysis.

6. FINDINGS

6.1. Section 38(3) (a) Identification and mapping of all heritage resources impacted on in the area affected.

The site - As the site has already been surveyed by other heritage practitioners no site survey was done as part of this phase of the investigation.



Figure 1. Eastern elevation of the mine management office building (Photograph: M. Naude 2013)



Figure 2. Western elevation of the mine management building (Photograph: M. Naude 2013)

Historic office complex – Relatively little is known about this particular building, its origin, floor plan and the original intent of the design. Little is also known of the architectural typology from which it originates.

The building is rectangular in shape, with a central wall dividing the building in two sections along the entire length of the structure. All the offices are arranged along this internal spine with doors opening outwards onto the narrow verandah that runs along all four sides of the building. The rooms are relatively small each with a single exterior door and window. No doors connect the interior spaces with each other and there is no interface between individual rooms.

One of the exceptional elements of the building is the foundation. The foundations is constructed with neatly dresses bluish granite stone and projects above the surface to form a narrow plinth. Two rows of baked bricks were laid on top of the stone masonry foundation. The single most structural element to the foundation that attracts attention is the wide galvanized sheet iron that was installed on top of these two layers of brick as it is so wide that the exterior ends could project outwards for approximately 7cms before it was bent downwards to about 45 degrees. One of the

questions arising from this structural element and the way it was treated remains why it had to be this wide as the building has an extensive verandah at all four sides making it unnecessary for such a prominent damp course.

The floors consist of a compacted mixture of ash and fine gravel which was covered with a cement screed of about 3cm thick. The floor was not designed to carry heavy loads and over time this screed was destroyed, exposing only the compacted gravel fill. The stoep around the building was defined by a neatly constructed row of dressed granite but no evidence of a formal floor screed or concrete could be found.

The building is constructed with baked bricks and may have been plastered with a clay mortar, but the mortar has been replaced, washed away or was chipped-off by some of the previous tenants. The exterior has been replastered with a clay plaster along the entire eastern façade but the plaster has been removed along all other walls. The type of bricks reminds of commercial stock bricks usually used for plastered walls and the degradation of these brick indicate that they were not intended to be left unplastered and unprotected as they clearly eroded badly and have become brittle due to the exposure to environmental elements.

The building has a hipped corrugated iron roof with wide eaves resulting in the creation of a verandah roof structure along all four sides of the building. The roof structure was constructed with Oregon pine trusses with long tie beams completing the design at the bottom and hanebalke supporting and reinforcing the trusses at the top near the ridging. Diagonal trusses serving as queen posts were installed in the centre preventing any sagging in the centre of the main side rafters of each truss. Some of these have been cut off and have been removed. The roof had no gutters and down pipes when the building was investigated. No evidence could be found that the wide eaves or verandah roof was supported by timber or cast iron columns along the periphery of the verandah.

Most of the doors and windows have been removed while some of the door frames and windows frame have remained intact. In one of the rooms sections of a sash window have been retained – even though it is broken and dilapidated.

All the rooms had ceilings but in only two rooms have the timber planking of the original ceilings been left intact (or partly intact). Each of these ceilings has an attic door. The original cornices of the ceiling have remained in some of the rooms.

No evidence of other structural elements was found but in some rooms wooden strips containing metal hooks used for suspending jackets from, have remained fixed to the walls.

6.2. Section 38(3) (b) An assessment of the significance of such resources in terms of the heritage assessment criteria in Section 6(2) or prescribed in Section 7.

According to the ICOMOS Burra Charter ‘cultural significance’ means ‘aesthetic, historic, scientific or social value for past, present or future generations’. Cultural significance is a concept which helps in estimating the value of places. These terms and their meaning are not mutually exclusive, for example, architectural style has both historical and aesthetic aspects (Burra Charter, 1999).

The categorization into aesthetic, historic, scientific and social values is one approach to understanding the concept of cultural significance (Burra Charter, 1999). However, more precise categories may be used as understanding of a particular place may increase.

For the purposes of this report such categories are used concurrently with the criteria set out by the National Heritage Resources Act.

6.2.1. Significance criteria in terms of Section 3(3) of the National Heritage Resources Act.

These criteria are determined by the National Heritage Resources Act. The general objective of these criteria is to enable the heritage expert to determine whether the site or any element on a site has cultural significance. However, the criteria also tend to slant towards the identification of places of 'national' significance.

For this reason a second set of criteria is included that focuses more on the 'local' significance.

[The following diagrams indicate 'significance' (and not 'impact')]

	<i>Criteria</i>	<i>Significance</i>
1.	<p><i>The importance of the cultural heritage in the community or pattern of South Africa's history (Historic and political significance)</i></p> <p>The location of the mine is a unique phenomenon in this location: between Kroonstad and Viljoenskroon. The location and presence of a diamond mine in this region is also unique. The presence of a kimberlite and not alluvial diamond mine in this location is also unique. For this reason every manmade structure associated with this mine can be considered unique based on the geographic location of the mine.</p> <p>The building is not located in an urban environment and does not represent any commercial building type associated with civil society. The building is an example of a unique architectural typology associated with mining history and mining architecture usually found at mines and on mine properties. The building can be considered unique due to its age (older than 100 years), location (between Kroonstad and Viljoenskroon) and cultural associations (diamond mine management office).</p>	<p><i>Rating</i></p> <p>medium</p>
2.	<p><i>Possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage (Scientific significance).</i></p> <p>The building may have been a common type of office building at the period it was designed and constructed but few (if any) of these buildings remained intact to represent the mining history and architecture in South Africa.</p> <p>Today (2013), this building can be classified as uncommon, rare and endangered within its micro landscape and the macro region as it is associated with a diamond mine in the Free State Province – a very uncommon occurrence for this part of the country.</p>	<p><i>Rating</i></p> <p>high</p>
3.	<p><i>Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage (Research/scientific significance)</i></p> <p>In general when buildings relating to mining history or the history of a particular mine are assessed, the bulk of these buildings occur on the Witwatersrand and are associated with the history of gold mining and the mining houses and companies associated with gold mining.</p> <p>Most of the recorded and photographed material relating to mining focuses on buildings and structures prior to 1900 and less on the buildings and structures from the first 20 years of the 20th century. This building dates to this period.</p> <p>In this case the building is associated with the history of diamond mining</p>	<p><i>Rating</i></p> <p>medium</p>

	and the de Beers mining company. The building is unique as it is the last of its kind on this mine and probably the only one of its kind in the entire Free State Province. The recording of the building may be the last and only opportunity to record a small aspect of this mine's history and contribute to the preservation of this type of building in the history of mining architecture in South Africa.	
4.	<p><i>Importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects (Scientific significance)</i></p> <p>The building is an example of early 20th century architectural typology associated with a particular class of cultural places. The 'class of cultural places' in this case can be defined as; diamond mines; and their related 'mining architecture'. Very little is known of this type of 'cultural places' and mining architecture of this period and within the geographic area of the Free State Province.</p> <p>The history of the building relates directly to the history of the de Beers company and fits somewhere into the chronology and the historical layering of the company. Unfortunately, very little has been recorded and published regarding these buildings and other buildings of the company allowing few if any comparable examples (buildings) to use as prototype. This lack of recorded architectural history makes this building even more rare and unique.</p>	<p><i>Rating</i></p> <p><i>high</i></p>
5.	<p><i>Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group (Aesthetic significance)</i></p> <p>The building represents a preferred aesthetic of the mining company, mine managers and mine engineers at the time. Therefore the building is the last remaining example of a very specific approach to design in official mine buildings of one company during the first ten years of the 20th century.</p> <p>Even though the building contains no ornament or decorative architectural detailing its simple, functional but practical characteristics represent the needs of the original owner and reflect the original intent of the design: to serve as administrative centre and offices of the mine management of a previous era. The aesthetic of the building had to be practical and functional and the way the building was designed and constructed represents an aesthetic of its own.</p>	<p><i>Rating</i></p> <p><i>medium</i></p>
6.	<p><i>Importance in demonstrating a high degree of creative or technical achievement at a particular period (Scientific significance)</i></p> <p>Very little is known of mining buildings of this period and few if any examples have been described, analyzed and recorded to be used as comparison.</p> <p>The building reflects some very unique technical features combining the application of a number of creative solutions to common problems in architecture.</p>	<p><i>Rating</i></p> <p><i>Medium</i></p>
7.	<i>Strong or special association with a particular community or cultural</i>	<i>Rating</i>

	<p><i>group for social, cultural or spiritual reasons (Social significance)</i></p> <p>As the building is not a public building and not located within an urban setting but isolated on a historic mining site it is to a great extent unknown to the public and cannot be protected or enjoyed in the same sense as a building located in an urban setting. The only individuals who would have had any association with the building would have been those who worked on the site at the time when the mine was functioning early in the 20th century. These individuals have all passed away.</p>	<i>low</i>
8.	<p><i>Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa (Historic significance)</i></p> <p>The mine has been the property of the De Beers company for more than 100 years and even though it was redundant for many years, the mine remained part of a small number of companies associated with diamond mining in South Africa.</p>	<p>Rating</p> <p>High</p>
9.	<p><i>Does the site have any significance in relation to the history of slavery in South Africa.</i></p> <p>Neither the site nor the building has any significance relating to the history of slavery in South Africa.</p>	<p>Rating</p> <p>Low</p>

6.2.2. Criteria of significance in terms of historical, artefactual and spatial significance.

Historical significance

As the criteria set out in the National Heritage Resources Act tend to approach heritage from the level of 'national' significance and few heritage sites and features fall within this category, a second set of criteria are used to determine the regional and local significance of heritage sites. Three sub-categories are used to determine this significance:

- Historical significance – this category determines the social context in which a heritage site and resource need to be assessed. These criteria focus on the history of the 'place' in terms of its significance in time and the role they played in a particular community (human context).
- Architectural significance – The objective of this set of criteria is to assess the artefactual significance of the heritage resource, its physical condition and meaning as an 'object'.
- Spatial significance – focuses on the context in which the object and place exists and contributed to the landscape, the region and neighbourhood.

<i>Criteria</i>	<i>Significance</i>
<p>1. <i>Is the site or building associated with a historical person or group?</i></p> <p>The building is associated with the history of the mine and it has no 'residential' or 'farming' association. The building has an association with the DeBeers mining company in general and the history of the Voorspoed mine in particular.</p>	<p>Rating</p> <p>high</p>

	The building has no association with a significant individual in the history of the mine development.	
2.	<i>Is the site or building associated with an historical event?</i> Neither the site nor the building is associated with an outstanding historical event associated with the history of the former Transvaal, the De Beers mining company or the farm Voorspoed	<i>Rating</i> <i>low</i>
3.	<i>Is the site or building associated with a religious, economic, social or political or educational activity?</i> The only association the building has is with the development of the Voorspoed diamond mine, and in particular the first years of the development of the mine during the period 1902 to 1907.	<i>Rating</i> <i>low</i>
4.	<i>Is the site or building of archaeological significance?</i> The building is older than 100 years and is classified as a place of Archaeological significance.	<i>Rating</i> <i>high</i>
5.	<i>Are any of the buildings or structures on the site older than 60 years?</i> The building is older than 60 years but also older than 100 years and therefore protected by two general criteria under the National Heritage Resources Act	<i>Rating</i> <i>High</i>

Architectural significance (artefactual significance)

These criteria focus on the object or artifact (building or structure or both) itself. They relate to the qualitative aspects of the artifact in terms of technology, period and style.

<i>Criteria</i>	<i>Significance</i>
1. <i>Are any of the buildings or structures an important example of a building type?</i> The building was used as mine management offices. Information regarding this type of office complexes dating to the first ten years of the 20 th century is scanty and remains difficult to determine whether this building compares well with other examples of the period. What makes the comparison even more complicated is that most examples of mine management office complexes are located in the Gauteng Province and are associated with gold mining on the Witwatersrand. For this reason this building can almost be considered unique and isolated example of its kind in the Freestate Province.	<i>Rating</i> <i>High</i>
2. <i>Are any of the buildings outstanding examples of a particular style or</i>	<i>Rating</i>


	<p><i>period.</i></p> <p>The building does not reflect any architectural details and stylistic aspects associated with formal architectural styles associated with Victorian or Edwardian styles – the styles common in urban areas at the time.</p> <p>This is a mine building often of engineering rather than architectural origin in design and construction logic. As mine buildings were often the result of engineering design, some structural elements such as door and window lintels were often over- designed as if it had to serve as industrial structures.</p> <p>This building was not designed in this way and another more refined architectural vocabulary seems to have been used during the design.</p>	medium
3.	<p><i>Do any of the buildings contain fine architectural details and reflect exceptional craftsmanship?</i></p> <p>The building contains no ornamental elements or decorative architectural detailing.</p> <p>However the building does contain fine architectural detailing inherent in the craftsmanship and execution of construction work. The most significant of these are reflected in the construction of the foundation.</p>  <p>Figure 3. Craftsmanship of the dressed stone foundation forming a plinth, with two courses of brick masonry and a well-defined damp course of galvanized sheet iron underneath the next brick courses (Photograph: M. Naude 2013)</p> <p>The unique elements of the foundation are the neatly dressed granite stone base ending in a plinth with two courses of bricks on top with an over-sized damp course of flat sheets of galvanized sheet iron projecting outwards. No effort was made to obscure the damp course but it was extended well forward (outwards) with an exposed shoulder and bent downwards to protect the top half of the (second layer of) brick masonry underneath.</p>	<p><i>Rating</i></p> <p><i>high</i></p>



Figure 4. Slightly arched window and door lintels constructed with bricks (Photograph: M. Naude 2013)

Other elements reflecting a more refined approach to structural problems are the neatly constructed arched keystone designs of brick masonry above windows and doors. To render even more structural strength to the low arched lintels 8mm iron strips were inserted underneath the arched brick lintels.

4.	<p><i>Is the building an example of an industrial, engineering or technological development.</i></p> <p>The building does not represent the popular perception of a mining building or a building normally associated with mining structures such as steel frame structures with corrugated iron cladding. This building is unique in the sense that it represent another type of 'mining building' as it is a brick building erected for administration purposes and not for utilitarian use, general storage or to accommodate technical or factory related activities.</p> <p>Even though the building cannot be considered or classified as an industrial building it still contains elements that are unique and represent some technological development such as the method used for the foundation and solving the possible problems and negative impact of rising damp.</p>	<p><i>Rating</i></p> <p><i>Medium</i></p>
5.	<p><i>What is the state of the architectural and structural integrity of the building?</i></p> <p>The principal architectural elements of the building have remained intact in terms of the original intent of the design. However the detailing associated with this original intent had disappeared. Doors and windows have been stripped from the building; most of the ceilings and cornices have been removed and the cement floor surfaces have been removed.</p>	<p><i>Rating</i></p> <p><i>low</i></p>

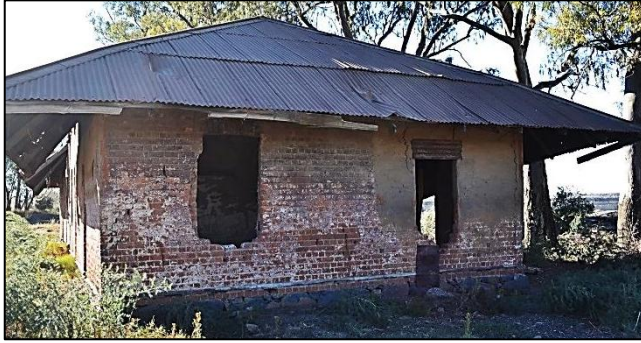


Figure 5. Southern elevation with window frames removed and sections of the walls missing (Photograph: M. Naude 2013)



Figure 6. Door and window frames removed and complete sections of the wall from floor to ceiling height demolished (Photograph: M. Naude 2013)



Figure 7. Arched brick masonry above the door completely demolished due to the removal of the arched iron strops supporting the window lintel (Photograph: M. Naude 2013)

The structural integrity has deteriorated to a serious and dangerous level. Even though the foundation has remained intact, all exterior walls and the central wall have moved and fatal structural decay has set in defined by wide cracks



Figure 8. Wide crack in wall indicating outward movement (2013)



Figure 9. Outward movement of walls resulting in structural failure (2013)

	<div data-bbox="509 191 941 730" data-label="Image"> </div> <p data-bbox="326 667 1130 699">Figure 10. Wide cracks (Photograph: M. Naude 2013)</p> <p data-bbox="326 793 1130 913">Some sections of the roof structure (trusses) have also been removed. Short sections of the principal horizontal tie beams have been cut-off leaving only the top sections (hanebalke) to ensure critical sagging or disintegration of the roof structure.</p> <div data-bbox="415 982 1040 1400" data-label="Image"> </div> <p data-bbox="354 1444 1104 1501">Figure 11. Selective removal of tie beams and supporting diagonal support beams of the roof structure (Photograph: M. Naude 2013)</p>	
6.	<p data-bbox="326 1570 1130 1627"><i>Is the building's current and future use in sympathy with its original use (for which the building was designed)?</i></p> <p data-bbox="326 1661 1130 1871">The building has been redundant after the first closing of the mine – around 1909. It was later used as housing by black farm workers. When the mine was re-opened, it could not be included and incorporated into the future planning of mining operations and part of the processing and other management nodes resulting in the complete decontextualizing of the building. Due to the location of the building in relation to the open cast pit it is impossible to use the building in any way.</p>	<p data-bbox="1162 1570 1235 1598"><i>Rating</i></p> <p data-bbox="1162 1661 1349 1717"><i>The building has no future use</i></p>

		<i>original drawings of the building</i>
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Spatial significance

Even though each building needs to be evaluated as single artifact the site still needs to be evaluated in terms of its significance in its geographic area, city, town, village, neighborhood or precinct. This set of criteria determines the spatial significance of the site and any of the buildings and structures.

In this case neither the site nor the building can be evaluated in terms of their urban context or the contribution to any urban setting. The farm Voorspoed is located about 35 km from Kroonstad and the mine is an isolated activity in an otherwise rural farm landscape.

<i>Criteria</i>		<i>Significance</i>
1.	<p><i>Can the building be considered a landmark in the town or city?</i></p> <p>The mine can be considered a landmark in the Kroonstad region and this is the only relationship the town of Kroonstad has with the site.</p> <p>The building has no relationship with the town of Kroonstad and has no landmark value in any urban context.</p>	<p>Rating</p> <p>low</p>
2.	<p><i>Does the building contribute to the character of the neighbourhood?</i></p> <p>In this case the mine and farm Voorspoed must be considered as a 'neighbourhood' – in a very generic sense. Within this interpretation of 'neighborhood', the old office building is quite a historic structure and makes a monumental and strong visual contribution to the mine's history. However the existing location of the building and the historic significance are not compatible in any way, as its structural quality (integrity) and the blasting at the mine nearby are not compatible with each other.</p>	<p>Rating</p> <p>low</p>
3.	<p><i>Does the building contribute to the character of the square or streetscape?</i></p> <p>The building does not relate to any streetscape, square or any urban open space.</p>	<p>Rating</p> <p>Low</p>
4.	<p><i>Does the building form part of an important group of buildings?</i></p> <p>The building is an isolated architectural element and the last remaining building associated with the original mining activities. It is an isolated structure that does not support any other buildings. It has been decontextualised over time with no option for reuse or as supporting building to any other complex of buildings or structures.</p>	<p>Rating</p> <p>low</p>

6.3. Section 38(3) (c) *An assessment of the impact of the development on such heritage resources.*

The building will be adversely affected by the current and proposed future development.

The principal impact of the development on the building is that the building falls within the area which will be mined due to the presence of the kimberlite subterranean substructure. The second and equally serious impact is caused by the blasting by explosives within the perimeters of the kimberlite pipe.

The building has deteriorated to the extent that due to fatal structural disintegration and movement in the structure it would eventually cave in on itself. The building is already unstable and would self-destruct over time.

The unstable condition of the building and the continuous blasting with explosives in the open cast mine about 40m away from the building makes it impossible to retain the building in any condition – both its current condition or any other restored, reconstructed or reinforced condition.

6.4. Section 38(3) (d) *An evaluation of the impact of the development on heritage resources relative to the sustainable economic benefits to be derived from the development.*

Neither the protection and re-use of the building nor the demolition of the building will have any effect on the economic development of the surrounding community or the residents of Kroonstad. Protecting the building is not possible as it is located on the rim of the open cast mine crater where blasting and the resulting geological tremors will destroy the already weak and fragile structure.

6.5. Section 38(3) (e) *The results of consultation with the communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources.*

No public participation process formed part of this evaluation.

6.6. Section 38(3)(f) *If heritage resources will be adversely affected by the proposed development the consideration of alternatives.*

The building will be adversely affected by the current and proposed future development. Any mining activities that involve blasting will have an adverse effect on the building. The only way to stop blasting would imply the complete closing of the mining.

6.7. Section 38(3)(g) *..plans for mitigation of any adverse effects during and after the completion of the proposed development.*

The best mitigation measure is to record the building as a first step of the appropriate memorialisation process. The records must be included in any heritage assessment report and any submission to the SAHRA or PHRA-Freestate.

7. RECOMMENDATIONS

The building may be demolished and the proposed development may continue on the following conditions:

2. The building must be properly recorded prior to demolition: (a) photographically recorded and described according to standard architectural vocabulary; (b) measured drawings of the floor plan, elevations and

essential architectural elements and details; (c) the information must be compiled in a report and (d) included into the submission to the PHRA-Freestate as part of application for a demolition permit.

8. REFERENCES

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