BOSCHENDAL FOUNDERS' ESTATES NATIONAL HERITAGE SITE

Section 27 NHRA application for Bulk Services





Prepared for Boschendal (Pty) Ltd

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A. INTRODUCTION

Sarah Winter has been appointed by Boschendal (Pty) Ltd to prepare a Heritage Statement to accompany a permit application to the South African Heritage Resources Agency (SAHRA) for bulk service infrastructure on the Founders' Estates National Heritage Site (NHS) located on Boschendal Estate within the jurisdiction of the Stellenbosch Municipality. The proposed development triggers the need for a permit application in terms of Section 27 (18) of the National Heritage Resources Act (Act 25 of 1999; NHRA). The report has involved in the input of Bernard Oberholzer Landscape Architect and Visual Specialist as well as David Halkett of the Archaeological Contracts Office (ACO).



Figure 1: Regional Location Plan



Figure 2: Boschendal Estate within the context of the Dwars River Valley. Founders' Estates is shaded in purple



Figure 3: Farm Portions comprising the Founders' Estates

A.1 Study Brief and Scope of Work

The study brief is for a Heritage Statement including an assessment of the proposals on the heritage significance of the Founders' Estates NHS and for this to accompany a Section 27 (18) NHRA permit application to SAHRA. The report also fulfils the requirements of Section 38 (3) and 38 (8) of the NHRA given that the proposed development triggers the need Environmental Authorisation in terms of the National Environmental Management Act, 1998 (NEMA) and the EIA Regulations.

The scope of work has focused on two primary heritage issues affected by the proposed development:

- Assessing the impact of the roads and storm water infrastructure on the landscape character of the Founders' Estates including reference to the Founder Estates Design Guidelines (2010) and draft Landscape Plan and Guidelines (2020).
- Assessing the impact of the proposals on archaeological resources including recommendations for the avoidance of areas of high archaeological sensitivity and/or archaeological monitoring. A copy of the archaeological assessment report prepared by David Halkett (ACO) is attached as Annexure A.

Sarah Winter and Bernard Oberholzer have worked with the project team since 2020 providing input in ensuring that the infrastructural proposals have a sense of fit with the natural and rural character underpinning the heritage significance of the landscape.

The bulk services trigger the need for a Basic Assessment Report (BAR) in terms of the provisions of the National Environmental Management Act (Act 107 of 1998; NEMA). The Heritage Statement will be included into the draft BAR advertised for public comment. As part of this public consultation process, the following local heritage organisations were provided with an opportunity to comment:

- Pniel Heritage and Cultural Trust
- Franschhoek Heritage and Ratepayers Association
- Stellenbosch Interest Group
- Stellenbosch Heritage Foundation
- Drakenstein Heritage Foundation

Subsequent to the submission of the heritage report dated September 2022 to SAHRA, an Interim Comment from SAHRA indicated that the requirements of Section 38 (3) of the NHRA had not been fully addressed with specific reference to Section 38 (3) (d) and (e). The heritage report has therefore been revised in order to address these two items as outlined below.

- (d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development; and
- (e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources.

These items are addressed in Sections F and G of the report.

A.2 Site Description

Boschendal (Pty) Ltd has acquired the rights for the subdivision and development of eighteen (18) so-called Founders' Estates on a portion of its landholdings. The Founders' Estates comprise 18 different farms measuring between 21 and 44 hectares each with a defined area to accommodate a farmstead within an Excluded Area of 8000m2 and the remaining farm being included in an agricultural lease area registered across the 18 subdivisions. A Developable Area has been

determined within the 8000m² Excluded Area of each FE, ranging from 1200m² to 2400m². These Development Areas are not included in the scope of this project.

The Founders' Estates subdivision was approved by SAHRA in 2008 subject to a number of conditions including the preparation of Design Guidelines approved by SAHRA in 2010.

The Founders' Estates is a productive agricultural landscape situated on the slopes of the Simonsberg. It is comprises three broad landscape zones as indicated in Figure 4 and 5. The three zones are as follows:

- A. The lower, more gentle slopes with their orchards, tree clumps (oaks, gums, poplars, olives), shelter belts and dispersed farmsteads or cottages.
- B. The mid slopes of weathered granite type soils with vineyards, farmsteads (Goede Hoop and Nieuwedorp), farm dams and some tree clumps.
- C. The upper, steeper mountain slopes with a mosaic of vineyards and indigenous scrub, or alien thickets, dissected by drainage ravines with existing and future homesteads generally located on or just above the 320m contour line.



Figure 4: Natural Landscape Constraints and Informants

Access to the Founders' Estates is off the R310 and via a yellowwood avenue situated on axis with Cottage 1685 (formerly known as Rhodes Cottage). The yellowwood avenue intersects with the north-south historical route connecting the historical farmsteads of Goede Hoop, Cottage 1685, Nieuwedorp and Excelsior and which serves as the main structuring route for the vehicular access across the Founders' Estates. The farm roads across the Founders' Estates are mostly dirt roads with the exception of the north-south historical structuring route, which has exposed aggregate concrete pavers, and the access route to Mountain Villa, which has exposed aggregate in situ cast concrete. It is proposed to use an exposed aggregate finish on all roads using a combination of concrete pavers and other with in situ cast concrete.



Figure 5: Cultural Landscape Constrains and Informants



Figure 6: Site Photographs (Source: Jody Patterson NMA August 2021)

A.3 Project Description

The following project description has been provided by the Chand Environmental Consultants responsible for the environmental application.

The proposal is to install new service infrastructure and expand on existing infrastructure to ensure that the entire Founders' Estates is serviced. The proponent also intends to formalise existing farm roads and develop new sections of roadway to provide access to the new farmsteads.

The scope of project includes the following:

- The installation of a new bulk foul sewer line, bulk water pipelines and rising main, stormwater infrastructure (swales and culverts) and fibre internet ducts.
- The expansion of existing electricity and irrigation lines.
- The upgrading of existing farm roads.
- The development of new sections of roadway expanding existing farm roads or tracks but retaining the existing road width.
- The construction of a new 100k'l reservoir and new sewer pump station;
- The installation of an 'external' (outside of the Founders' Estates) sewer pipeline and water pipeline in order to connect the Estate to the municipal network.

It should be noted that the Heritage Statement deals with those services within the Founders' Estates National Heritage Site and therefore does not deal with the 'external' services including the proposed sewer pipeline and water pipeline. These aspects are covered in a separate Section 38 (1) Notification of Intent to Develop to Heritage Western Cape prepared by ACO.

Most of the service corridors will be located within existing roadway or informal, transformed road shoulders. However, there will be installation of services beyond existing roadway, and/or close to, within, or across watercourses, which in some areas would also entail the clearance of indigenous vegetation. Where the routings of service lines overlap, services will be installed within the same 1m wide trench.



Figure 7: Proposed Service Infrastructure

	New Development component	Total length (m)	Width/diameter	Total footprint
Internal	Sewer pipelines – below	3 750 m	160 mm diameter	3 750 m2
Services	ground			
	Sewer pipelines - above ground	200 m	250 mm diameter	200 m2
	Water pipelines	7 350 m	110 mm diameter	7 350 m2
	Rising Main	2 350 m	75 mm diameter	2 350 m2
	Electricity lines	5 200 m	N/A	5 200 m2
	Irrigation lines	1 250 m	32 mm diameter	1 250 m2
	Fibre ducts	6 100 m	90 mm diameter	6 100 m2
	New roads	335 m	3.0 m – 5 m	1 435 m²
	Reservoir	N/A	N/A	20 m x 20 m
	Culverts	N/A	N/A	TBC
External Services	Water Pipeline	750 m	250 mm diameter	750 m²
	Sewer Pipeline	350 m	160 mm diameter	350 m ²

Water Supply Pipelines and Reservoir

A new water supply reticulation network will secure the supply from the existing municipal water reticulation network in Pniel. A total length of 7350 m pipe would be installed.

A new rising main would connect to a proposed new reservoir and run in a southerly direction along existing roadway to a new connection point on Farm 16/1685.

A new 100kl reservoir is proposed to be constructed directly adjacent to an existing reservoir located to the west of the site on the slopes of Simonsberg. The development footprint of the new reservoir is 400 m² and would also entail the clearance of indigenous vegetation

Sewer Reticulation

A new internal sewer reticulation network will connect to the existing municipal line in Pniel. A total of 3950 m of pipeline is mostly below ground but at stream crossings will be above ground.

A sewer pump station with a development footprint of approx. 100 m² is proposed on Portion 7 of Farm 1685 adjacent to an existing roadway, and beyond any freshwater buffers or sensitive vegetation.

Electricity Supply

Electricity supply is already being provided to the farm via an existing 11kV overhead power line. New connections would off-take from the existing overhead line and would be installed in underground ducting within the combined services trenches. A total length of 5200 m of electrical cables is proposed.

Irrigation Supply

Existing irrigation lines are presently extensive and connect to various farm dams. Connections to these lines are proposed. The total length of irrigation lines proposed is 1250 m.

Fibre Ducts

New fibre sleeves would be installed across the site. The total length across the site included in this scope is 6100 m

Storm Water Infrastructure (Culverts and Swales)

Eight new box culverts are proposed at watercourse crossings as identified in Figure 7. Swales will provide attenuation of the runoff from roadways. Storm water swales are proposed along Road A, Road B, Road C, Road D and Road D_1 as indicated in Figure 7. Note that the swales would be located within the disturbed footprints of existing roadways. The purpose of the swale is to allow any overland runoff from the proposed roadway to be treated, attenuated and discharged into the nearest stream. Where possible, multiple outlets will be provided to prevent concentrated flow. It is proposed to construct the outflows will be constructed with 2 dry-stone layers (open joints, no mortar) with riprap at the base of the outlet which will be lined with geotextile (Class A3). The runoff will spill out via this outlet towards the nearest stream (refer to Figures 8 and 9). The proposed outlets are to be constructed at 20 - 25m intervals.



Figure 8: Proposed Roads and Stormwater



Figure 9: Proposed Swale with outlet towards stream at 20-25m intervals



Figure 10: Cross-Section of Swale with outlet towards stream

Proposed New Roads

New road sections would be constructed on Portion 5, Portion 10 and Portion 19 of Farm 1685. A new road would also be constructed across Farm Portion 13 and 12. The sections and specifications of proposed new roadway are summarised in Table 1 below. The new road sections would connect to existing roads.

Location	Road Length	Road Width	Development Footprint
Farm 1685/5	65 m	3 m	195 m²
Farm 1685/10	45 m	3 m	135 m²
Between Farm 1685/13 and Farm 1685/12	160 m	3.5 m	560 m²
Farm 1685/13	26 m	3 m	78 m²
Farm 1685/19	17 m	3 m	51 m²
TOTAL	313 m	N/A	1 019 m ²

Table 1: Road Dimensions

All roads would have an exposed aggregate finish, with interlocking precast concrete pavers (refer to Figure 11) or in situ cast concrete (refer to Figure 12).



Figure 11: Typical Road Cross-Section with Interlocking Pavers



Figure 12: Typical Road Cross-Section with In-Situ Concrete

B. HISTORICAL OVERVIEW

Included with the Heritage Statement is a historical timeline of Founders' Estates prepared in 2008 and attached as Annexure B.

B.1 Pre-colonial Period

Human occupation is recorded in the Franschhoek region from the Early Stone Age onwards, with evidence for this long-standing occupation and utilisation of the landscape predominantly found in stone tools spanning the Earlier, Middle and Later Stone Ages. Maps and records from the early arrivals of Europeans into this area attest to the continued use and occupation of this landscape by indigenous people into the recent past.

Earlier Stone Age (ESA) tools are fairly ubiquitous in the region and are the most commonly identified Stone Age material in archaeological surveys. Occupation of the area continued through the Middle Stone Age (MSA), although such occurrences are not common in the region. The Later Stone Age (LSA) is poorly represented in the region, possibly a reflection of the extensive occupation and utilisation of the region in the colonial past that has resulted in archaeological material and sites being destroyed and/or reworked. One exception to this pattern is an archaeological site at Solms Delta on the banks of the Dwars River.

The excavations in proximity to the Delta homestead revealed a site with two broad periods of occupation, as determined by stone tool types and the presence of pottery in the second occupation (Orton 2005). The site, significantly, spans the arrival of ceramic technology at the Cape, the advent of which heralded the replacement of ancient hunter-gatherer systems with pastoralism, sometime in the past 2000 years (RSA, 2019).

The hunter-gatherers who had occupied the landscape until the arrival of herding peoples were either assimilated into nomadic pastoralist groups or displaced by them. These pastoralists, predominantly, occupied the landscape when the Europeans arrived. Their presence in the region is attested to in travel accounts and maps of the time. Indeed, European expeditions to barter for cattle with these pastoralists was responsible for much of the early incursion of the settlers into the interior (Malan 2016).



Figure 13: Portion of Late 17th century Map of the Settlement at Stellenbosch and Drakenstein (CA M1/273). 17th and early 18th century maps locate Khoekhoen kraals outside of colonial settlements, as depicted in this map

B.2 Earlier Colonial Period

The first Europeans arrived in this region in the mid to late 17th century, with early sorties to barter cattle soon deteriorating to skirmishes over grazing land (Malan, 2016). Trading parties were sent to Drakenstein to acquire cattle from the Goringhaiqua and the Gorachoqua, two of the pastoralist groups that were located in the vicinity (Titlestad 2008).

With the allocation of the first land to farmers in Stellenbosch in 1679, and Paarl, Simondium and Dwars River shortly thereafter, all pretense at alliance with then Khoekhoen was abandoned. By 1688, these early colonial farmers were joined by Huguenot refugees fleeing religious persecution in Europe, and the early grain and fruit farms of the region were increasingly turned into highly successful wine farms (RSA 2019). The primary purpose of these early farms was to supply agricultural produce to the refreshment station of the Dutch East India Company (DEIC:VOC). It was during this period that the farms Boschendal, Rhone, Goede Hoop and Nieuwedorp were granted; Boschendal in 1685, Nieuwedorp in 1689, Rhone in 1691 and Goede Hoop in 1708. Nieuwedorp was granted in five parts to relatives of Ansela of Bengal, a freed slave of Jan van Riebeek's (Titlestad 2008).

From c1685 more or less uniform grants of land in narrow 60 morgen strips, abutting a local perpetual water source began to line the Valley, with common arable and grazing land between them. The cadastral pattern was set and essentially endured for two centuries. Outspans were centrally and marginally situated to accommodate travelling, transport and communal grazing (Titlestad 2008).



Figure 14: Extract from Compilation of 1657-1750 Freehold Grants of the SW Cape Colony prepared by Leonard Guelke. The circled area is the approximate area of Founders' Estates.

A dominant mixed pattern of agriculture was established with emphasis becoming wine based in the late 18thand 19th centuries, fruit based in the early 20th, and returning to wine in the late 20th century.

Despite resistance from the Khoekoen, by the early 18th century colonial settlement had destroyed their transhumance pattern of movement and their decimation was hastened by the indentured labour system and disease.

Nieuwedorp's land was granted in five parts from 1689, chronologically to Arnoldus Basson, Jacobus van As, Erasmus van Lier, Willem Basson and Pierre Meyer. Willem was the son of Ansela of Bengal. Once enslaved to van Riebeeck, she was later manumitted and transitioned to burgher society. She was the mother of Anna de Koning (born in slavery) and Jacobus van As. In 1701 the farm was a consolidation of five properties owned by Jacobus van As, who, like his mother, had acquired significant property and wealth. After his death in 1713 his estate was sold – most of it to Jacob de Villiers, son of Jacques De Villiers, owner of Boschendal in 1724. The De Villiers family now owned half of the Valley and retained control through the 18th and 19th centuries (Titlestad 2008).

The late 18th and early 19th century colonial landscape was associated with an emerging rural gentry, the building and expansion of farmsteads and the central role of slavery and indigenous farm labour in agricultural production and building construction. A rural Cape vernacular emerged with the classic Cape Dutch makeovers in the 1780s to 1820s extending into the British period (e.g. Boschendal, Rhone, Goede Hoop and Nieuwedorp) (Baumann et al. 2017).

The first half of the 19th century was characterised by a rising rural gentry, syncretic Cape Dutch and British trade and farming practices, slave emancipation, segregation and labour management. The introduction of the quitrent land grant system in 1811 resulted in substantially enlarged landholdings and effectively removing common arable and grazing land between them. The mission settlement of Pniel was established in 1843 mainly to accommodate freed slaves in the area (Baumann et al. 2017).

The second half of the 19th century was characterised by mineral exploitation in the interior and the consolidation of British colonial interests at the Cape including the development of the harbour and railway line. It was also associated with the decline in the wine industry and agricultural economy. In 1886 the outbreak of phylloxera virtually destroyed all the Cape vineyards, leaving many farmers bankrupt (Baumann et al. 2017).



Figure 15 (above left): Portion of a Military Survey of the Valley (CA M3/405, Thibault 1808). This shows the degree of settlement and the connections between farms

Figure 16 (above right): Survey Compilation at c1830. This shows the incorporation of common land into private ownership by quitrent grants and the expansion of landholdings across the Valley

B.2.1 Silvermine

The silver mine complex is an early industrial landscape which according to Vos (2004) must surely be one of the earliest colonial period mines in South Africa. The background history of the mine was researched in some detail by Lucas (2004, n.d.). The "discovery" of precious metals in the Simonsberg Mountains by Frans Diederick Muller led to him motivating the development of a mining association involving many prominent members of the local VOC who funded the operation which commenced in about 1743 employing up to 20 VOC employees and 19 slaves.

Despite sinking two complexes of mine shafts on the upper and lower slopes of the Simonsberg (Figure 5) and substantial investment of funds by senior politicians, no metals of any value were ever found. Muller was exposed as a fraud, and was deported to Batavia without his possessions in 1750.

The mining operation, albeit relatively short lived, left a substantial footprint on the landscape including mine shafts, a number of buildings, roads and an ore processing mill and smelting facility. The archaeological footprints of a number of these have survived, while others not found previously, may still lie hidden in the dense thickets of the Simonsberg. The ruin of Muller's house and other mining associated structures have been partially excavated by Lucas. The ruins and shafts, though very well known to the Pniel community who visit regularly and identify closely with the sites as local heritage, have not been formally documented.



Figure 17: Drawing of the Upper Silver Mine Works from 1743 (Source: South African Library MSB 974/2 in Lucas 2004:45)

1) Ore processing mill and smelt house

The substantial ruin of the 'mill' is located alongside a stream on Founders' Estate and Lucas has suggested that this was a water operated crushing plant where "ore" from the mine was brought for processing (Figure 6). Vos however is not convinced by this hypothesis and argues that the mining operation and the mill may not be contemporary.

Built from stone and calcrete mortar, the building once contained three levels, the lowest of which contains several large stone built 'mountings' of an industrial nature. The numerous openings are arched and finished with well fired brick. No woodwork or joinery has survived though beam rests and sockets are visible in the masonry and attest to the use of wood. Dense plant growth has severely impacted the structure through root movement and at least one fallen tree has collapsed a large section of walling in the past. Large trees continue to grow in close proximity and threaten sections of the walls. Immediately to the south is a second structure, which has been identified as the smelt house.



Figure 18: Map of the Lower Industrial Complex and Mill. Mapped by Lucas (undated) and reproduced in Hart (2020)

Although not shown on the drawing, there is another less substantial structure ~20m upslope to the south, on the other side of a farm service road. There appear to be a few rooms visible, and it may been some form of dwelling. Another structure located downslope is believed to have been a store.

In reality the significance of this and associated structures is not very well understood. It is clear that its construction method contrasts to the comparatively rudimentary building methods used for Muller's own house, but a lot more work is needed to explain the age, function and purpose of this enigmatic structure and those associated.

If indeed they are associated with the mine, then we must assign to the group, a high degree of significance as the only surviving mine of its kind in South Africa. The site begs substantial archaeological investigation and conservation.

2) Aspects of the mining site on land outside Founders' Estate

The mining settlement is located ~600 m upslope to the south west and the layout is indicated in Figure 16.

Muller's house and associated ruins

Muller's house has been excavated by Lucas who succeeded in collecting a significant amount of artefactual material and exposing the ruins themselves. The ruins consists of stone and mud walls and brick paving. Eradication of alien vegetation has opened the site and meant that root movement in the foundations of the structure has been reduced. Other structures include a kraal and an oven, stores and labourers cottages. Lucas also documented wagon tracks associated with the mining operations



Figure 19: Detailed Map of the Mining Settlement Complex (Site 2). Located midway between the Mine Shafts and the Ore-Processing Precinct. This shows the foundations of structures as well as the slag and domestic middens associated with the buildings. Structure 1 is Muller's House. (After Lucas undated)

Mine shafts

Although Lucas included a section drawing of the mine layout (Lucas 2004:45; see Figure 14) the mine shafts themselves have never been mapped in detail in recent times. The shafts have been inspected by Vos and Lucas and more recently by Gribble who compiled a basic description of the visible layout and condition (in Hart 2020).

B.3 Later Colonial RFF Period

The first half of the 20th century was characterised by the Union of South Africa, Cape Revival movement and a rising corporatism. It was associated with the development of the fruit industry in the Valley, new workers' housing, farm infrastructure, railway infrastructure and improvements to the road network. It was during the late 19th and early 20th century that the settlements of Johannesdal and Kylemore were established and the planned labourer's village of Languedoc was constructed.

The 20th century began with the South African War (previously referred to as the Anglo-Boer War) and was characterised by increasing racial prejudice, concretised in the election of the National Party in 1948 and the introduction of apartheid (Titlestad 2008).

The landholdings of Boschendal, Rhone, Goede Hoop and Nieuwedorp were amongst 26 farms in the Valley to be incorporated into Rhodes Fruit Farms (RFF) at the turn of the 20th century. This corporate agricultural entity established over the greater part of the Valley lasted more than a century becoming Amfarms in 1969 until 2003 when it became Boschendal Estate.

After retiring as Prime Minister of the Cape in 1896 and with the collapse of the wine industry, Cecil John Rhodes invested in an innovative agricultural scheme for the development of the fruit industry. The scheme was originated by H.E.V. Pickstone who persuaded Rhodes to buy up derelict wine farms in Groot Drakenstein, Wellington and Stellenbosch. Rhodes instructed his agents to give preference to farms with Cape Dutch homesteads and set aside substantial sums for their maintenance (Titlestad 2008).

The agricultural scheme was carried out under the management and technical advice of Pickstone, whose technological advances and international expertise influenced fruit production in South Africa. Assisted by 12 young managers, many of whom also trained in California, the farms were transformed using modern methods of pruning, grafting and irrigation. Deciduous fruit trees were extensively planted with fruit becoming the primary produce of the Valley (Titlestad 2008).

Rhodes died in 1902 before the vision of a Cape fruit industry was fully realised. The company Rhodes Fruit Farms Ltd was established in the same year. Pickstone managed the consolidated agricultural group until 1905. The scheme, initially established as an experimental and training centre for the development of the Cape fruit industry, was soon to become the centre of a thriving export fruit industry (Titlestad 2008).

The introduction of corporate farming methods and new employment opportunities resulting from the growth and diversification of the fruit industries necessitated the construction of new agricultural buildings as well as farm managers' and workers' houses, including the planned labourer's village of Lanquedoc. The railway line to Groot Drakenstein was opened in 1903 and a railway station built. The trains were equipped with refrigeration cars, vital for the trade and export of fruit (Boschendal Museum 2008).

Facilitated by the construction of the railway line, the R45 and R310 developed into an agro-industrial precinct. A cannery was built in 1903 and a jam factory in 1906 to provide an outlet for excess fruit. By 1907 the company's business was organised in three distinct departments: farm, packhouse and factory. The new offices of RFF were built in 1909. A new central packshed was erected in 1931 (Boschendal Museum 2008; Baumann et al. 2017).

Herbert Baker's extensive architectural intervention in the Valley began at Rhodes' request. Baker designed a cottage for Rhodes that was constructed on or adjacent to the site of the ruined Nieuwedorp homestead. It combined Cape cottage features with the Arts and Craft movement. Rhodes died before it was complete. Rhodes Cottage, now known as Cottage 1685, became a guesthouse for use of the company's executives and international political and business personalities.



Figure 20: Cottage 1685 in the 1930s (Source: UCT MSSA BC860, C1, Titlestad, 2008)

De Beers took over RFF in 1925 and in 1927 appointed an international expert in the fruit industry, Alfred Appleyard, as Managing Director with the aim of efficient consolidation and restructuring of the business operation. In 1937 De Beers sold RFF to Abe Bailey and, after his death in 1940, a syndicate of business interests acquired RFF and they owned and developed it for the next 28 years.



Figure 21: Extract of 1923 Topographical Plan of a Portion of Rhodes Fruit Farms Ltd (Source: Surveyor General, Boschendal Collection).



Figure 22: Goede Hoop c 1920s (CA E754)



Figure 23: Old Watersluit between Good Hope and Nieuwedorp 1932 (MSSA BC 860, C1, 19:9)



Figure 24: Dam on Founders' Estates 1932 (UCT MSSA BC860, C1,21:20)

B.4 Apartheid Period

The landscape of the second half of the 20th century was characterised by apartheid, massive expansions and improvements in infrastructure and new attitudes to farm labour. It was during this period that Pniel, Lanquedoc, Kylemore and Johannesdal were declared "coloured areas", various clusters of farm workers' cottages were built and the Thembalethu Hostel was built to the east of the Dwars River to accommodate black migrant workers.

Jack Manning was appointed Managing Director of RFF in 1949. Under his management during the 1950s and 1960s massive expansions and improvements were undertaken – new dams and irrigation doubled the productive agricultural area, the factory precinct was enlarged including the construction of a saw-mill and a new cannery to the west of the R310, new workers' housing was built, transport was mechanised and refrigeration technology was improved. The export markets boomed and by 1968 RFF employed hundreds of people and produced and packaged large-scale export crops (Titlestad 2008).

In 1969 Anglo American and de Beers purchased RFF to become Amfarms for the next 31 years. In 1976 the Boschendal homestead, outbuildings and gardens were restored/renovated to their 19th century appearance by Gabriel and Gwen Fagan. The Boschendal werf was declared a national monument in 1979 (now a Provincial Heritage Site). In the late 1970s it was established as a museum/tourism/restaurant facility, one of the first establishments of its kind within the Cape Winelands (Titlestad 2008).

Anglo turned its attention to wine making in the 1980s and the wine was marketed under the Boschendal label. Boschendal played a key role in the development of the local and export wine industry, and wine tourism. A state of the art wine cellar was built at Rhone in the 1990s (Titlestad 2008).

B.5 Democratic Period

The 21st century landscape is characterised by a shift to South African democracy, a change in corporate ownership and increased tourism use.

In 1998 Amfarms decided to dispose of its landholdings in the Dwars River Valley. In 2003 a consortium of investors known as Boschendal (Pty) Ltd purchased 2242 hectares of these landholdings. Since then the landscape has undergone significant changes. Between 2003 and 2005 about 3000 employees and their families living on Boschendal were relocated to a large extension of Lanquedoc called "New Lanquedoc". Numerous farm worker's cottages across the estate became vacant including the four cottages at Nieuwedorp. These cottages have very recently been renovated for staff accommodation is known as Kropman Village.

In 2008 the Founders' Estates subdivision was approved by SAHRA and in 2009 the entire Founders' Estates was declared a national heritage site. In 2012 Mountain Villa on FE 16 was approved by SAHRA, the only new farmstead to have been built on Founders' Estates since 2008.

In 2013 Tony Tabatznik became a shareholder of Boschendal (Pty) Ltd and in 2018 he acquired the company as the sole shareholder. Since 2013 the landscape has undergone significant further changes focused on the expansion and diversification of the hospitality, tourism and agricultural sectors. The agricultural emphasis is on the diversification of the farm through regenerative farming practice and moving away from monoculture. The Boschendal werf has become the focal point of considerable investment in a range of tourism infrastructure. Overnight accommodation and visitor activities have been extended across the estate including the newly established tented camp on FE 5 and hiking and bike trails across the Founders' Estates.

C. HERITAGE SIGNIFICANCE

The heritage significance of the Founders' Estates has been unpacked in previous heritage studies dating to 2006 including cultural landscape, built environment, archaeological and visual studies. Emanating from these studies is an overarching statement of heritage significance. Given that potential impacts on landscape character and archaeological resources are the primary heritage issues relevant to this project, these aspects are addressed in more detail in Section C.2 and C.3

C.1 Statement of Heritage Significance

The Founder's Estates is a national heritage site described in the gazetted declaration notice as follows:

The Boschendal Founders Estate, Dwarsrivier Valley, Cape Winelands Cultural Landscape is a product of the interaction between the natural landscape of great scenic beauty, the tireless labour of a slave population, biodiversity and human activities and responses over a long period which have created features and settlement patterns that are equally celebrated for their beauty, richness and diversity. The Dwarsrivier Valley, more than any of the other CWCL landscapes is a showcase of the genius of the slave infused society of the Cape, with the majority of the slave descendants still working the soil. This cultural landscape encompasses a great variety of significant heritage resources, developed out of the interaction between peoples of many cultures with each other and the place.(Government Gazette Notice 31884, 13-02-2009)

A further unpacking of heritage significance is set out below.

Historical Value:

- It reflects a pattern of early colonial settlement and expansion during the late 17th and 18th centuries with an emphasis on agricultural production concentrated in the well-watered fertile valleys.
- The role of the landscape as both a pioneering and continuous agricultural base since late 17th century, when rectangular plots were granted at the foot slopes of Simonsberg in relation to the Berg and Dwars Rivers.
- Although almost entirely cadastrally redefined, the enduring nature of this role is evident in the continuity of the Goede Hoop and Nieuwedorp farms from the 17th century.
- The temporal and thematic layering of the landscape in terms of:
 - Land ownership patterns (colonial dispossession, freehold, quitrent, feudal, family networks, institutional/corporate).
 - Patterns of labour (slavery, indentured labour, wage labour, migrant labour) and related shifts from a feudal to a corporate to a democratic order.
 - Patterns of built form (18th century origins of Goede Hoop farm werf, possible remains of 18th century Nieuwedorp farm werf and its later early 20th century expression, cottage clusters dating from the early 20th century onwards)
 - o The planted landscape (windbreaks, tree lined routes, forests, field patterns).

- Historical-associational linkages across the landscape in terms of ownership patterns with most of the farms being owned by extended family networks for more than a century and then farmed as a single entity since 1897 under Rhodes Fruit Farms, later Amfarms until 2003.
- The role of Goede Hoop farm werf as an agricultural entity dating to late 17th century and evidence of layering relating to shifting social-economic trends over time (livestock farming, wine production, fruit farming, labour, family networks).
- The contribution of Goede Hoop and Nieuwedorp to a collection of historical farmsteads (Boschendal, Rhone, Rhodes Cottage, Champagne).
- The role of the landscape in the history of the fruit industry with the establishment of Rhodes Fruit Farms and its association with important figures in the development of the export fruit industry at the turn of the 20th century.
- The presence of a major corporate institution (Rhodes Fruit Farms- Amfarms) spanning more than a century and its associated impacts on the landscape in terms of farming, infrastructure, built form, patterns of labour and institutional memory.
- The incorporation of an early industrial mining landscape, possibly one of the earliest colonialperiod in mines in South Africa; representation of a mid-18th century VOC mining operation linked to global trade and other VOC prospecting efforts at the Cape; layering of use over time from intensive mining activities to a place of refuge/retreat and 'passive' forms of natural resource utilisation.

Social Value:

• Enduring value of the upper slopes of the Simonsberg to local community as a landscape of memory, retreat/exploration and natural resource utilisation.

Aesthetic Value:

- The cohesive and iconic visual quality of a broad agricultural sweep framed by the Simonsberg and forming a spectacular backdrop to a collection of historical set pieces located on the lower slopes (Goede Hoop, Rhodes Cottage and Nieuwedorp).
- Views towards the landscape from the main movement network through the Dwars River Valley (R45 and R310).
- A coherent landscape structure in terms of an orthogonal field pattern reinforced by windbreaks and tree lined routes, a system of water courses feeding the Dwars and Berg Rivers and the movement network.
- The strong east-west axis terminating at Rhodes Cottage (Cottage 1685) at the base of Founder's Estates reinforced by the yellowwood avenue and linking the historical set piece with the Boschendal-Rhone Historic Core Precinct.
- The primary north-south movement route linking the historical set pieces of Goede Hoop, Rhodes Cottage, Nieuwedorp and eventually Excelsior near the R45.
- Positive response in the form of a range of historical built form typologies (farmsteads, managers' houses and farm cottages) that reveal a sense of fit in the landscape in terms of a response topographical conditions (following the contours, avoiding steep or visually exposed slopes, below the 320m contour), generally with limited footprint embedded in an agricultural landscape and located within a copse of trees.

Architectural Value:

- The representative nature of the built form in terms of typology, hierarchy and historical layering.
- The intact and representative nature of Goede Hoop reflecting various stages in evolution of Cape farm werf tradition with strong evidence of historical layering and possessing a distinctive linear layout.
- The significance of Rhodes Cottage at the base of Founders' Estates as a formal set piece in the landscape, its visual spatial linkages with Boschendal Rhone, its associations with the work of Herbert Baker and Rhodes Fruit Farms; an intact, representative and fine example of the cottage typology with Arts and Crafts stylistic influences. (It should be noted that while Rhodes Cottage is not within the Founders Estates boundaries, they are visually spatially and historically connected).
- The significance of Nieuwedorp with visual-spatial and historical linkages with Rhodes Cottage and having architectural significance in its own right.

Archaeological Value:

- The primary area of archaeological significance in the Founders' Estates is the Silvermine Landscape, which has national and international significance.
- Other areas of archaeological significance and sensitivity include the area around Goede Hoop and Nieuwedorp farmsteads.

C.2 Areas of Archaeological Sensitivity

The archaeological assessment identified no pre-colonial remains of significance.



Figure 25: Areas of Historical Archaeological Sensitivity on the Founders' Estates (after Hart 2005). Nieuwedorp (yellow), Goede Hoop (blue), mining landscape (purple), old workers housing (green)

C.2.1 Silvermine Landscape



Figure 26: Two Sites comprising the Industrial Silvermine Complex, as well as locations of known mine shafts (courtesy of Lucas, G in Hart 2021)

Historically the site represents an interesting albeit unsuccessful interlude in Cape history, that saw significant funds being spent on this project while the lure of wealth for members of the VOC establishment was overarching. While clearly Muller knew how to establish a mine, it seems incredulous that Muller expended so much energy and placed lives in danger in establishing a fraudulent operation. Unfortunately, we do not know much about Muller's background although clearly, he had some form of mining experience. That it was possible to defraud the establishment certainly seems a probability as VOC knowledge of mining was generally extremely poor and they were gullible in these terms. Then again, Muller may well have been convinced that the "ore" had potential but had no scientific means of assaying this, and persisted with the mining in hope, and eventually out of fear. Interestingly, Muller moved on to Batavia as a free man which indicates the allegations of fraud in the historic writings may have been a little embellished (Hart 2020).

As an historical event that had an impact on the Cape, the event is minor but certainly provides insight into the Cape elite of the day. What is significant is the establishment of a full-fledged mine – certainly one of the oldest in the Cape. The technology used was one of a kind, and indeed it is difficult to find references to stamp batteries of this age as most preserved ones are of 19th or early 20th century age. If we are correct in our identification of the mill as a stamp mill and processing plant, it is likely to be the oldest to have survived in what was the VOC hegemony and possibly in the world. The mine represented the lowest level of employment in the Cape, injuries and illness were frequent, dereliction was high even among the paid staff on site. Slaves who worked on the mill would have been one of the places where the mine workers spent their daily existence shoving wettened ore through the stamp battery. The site is considered to have high technological significance. Its identity and purpose has yet to be confirmed.

C.2.2 Nieuwedorp

Cottage 1685 and surrounds

It has been hypothesized that the original Nieuwedorp homestead was built here in the early 19th century but was demolished when Baker built Rhodes' Cottage in 1902. There are no visible traces of archaeological material on the surface in the immediate vicinity of the cottage, but it is quite probable that foundations exist below surface.

1685 Cottage Annex

This small separate cottage contains early elements. It is said to have been a mill that was once associated with the Nieuwedorp farmstead. A nearby *leiwater* may once have fed a mill race, although there is no immediate evidence of this. A closer examination of the Annex building that involves excavation and fabric analysis may be able verify if the structure was in fact a mill in the past.

Barn

The area around the Nieuwedorp barn appears to contain old building rubble and evidence of earlier construction in the general vicinity. Archaeological excavation and fabric analysis may be able shed light on the early phases of the structure and reveal its uses.

Area of Sensitivity

Given the possibility of finding the remains of demolished structures pre-dating Cottage 1685, and possible remains of a mill race, the area encapsulated within the yellow polygon (Figure 23) is considered to be potentially sensitive to development activities. Development activities within the demarcated zone should be monitored, and if any archaeological remains found, they should be explored to identify possible age and use.

C.2.3 Goede Hoop

The Goede Hoop werf and associated structures as a complex (Figure 25) is considered high archaeological sensitivity as it has been demonstrated to contain a more or less complete archaeological sequence from the earliest period of the farms existence until the present day. The buried remains of one the earliest structures is located between the Slave Lodge and the 1821 homestead. Furthermore, artefactual material is plentiful both within and outside the existing werf wall. As yet, little is known about the developmental sequence of various individual structures such as the main house, annex, stables and mill building – all of which have high archaeological potential.



Figure 27: Goede Hoop Werf; 1. Main house, 2. Wine cellar, 3. Slave lodge, 4. Stables, 5. Mill, 6. Cemetery, 7. Second house

D. HERITAGE INDICATORS

The following heritage indicators are focused on the two primary heritage issues, namely:

- 1. The need for bulk services and infrastructure to respect the visual aesthetic and environmental integrity of the landscape.
- 2. The need for bulk services to avoid areas of high archaeological sensitivity and/or to be subject to archaeological monitoring.

D.1 Landscape Context

Underpinning the Design Guidelines (2010) and the draft Landscape Plan and Guidelines (2020) is the recognition of a natural and cultural landscape of outstanding heritage value. These documents specifically refer to the need for new development including infrastructure to be subservient to the landscape context.

D.1.1 General Principles

- The need for development to harmonise, complement and respond to the qualities of the broader landscape and the unique features of each Founders' Estate.
- The principles of authenticity and integrity being applicable in terms of ensuring a positive response to all historical layers of the landscape as well as its role as a consolidated working farm as opposed to an ornamental, suburban or fragmented landscape.
- A positive response to the historical patterns in the landscape that have endured over time specifically the pattern of buildings in relation to topography, water and patterns of access; buildings did not occur randomly in the landscape but in response to a carefully considered and environmentally based set of structural principles.
- New development should be subordinate to the landscape in terms of scale, massing, design and movement patterns.
- The addition of a new contemporary layer in the landscape but not at the expense of existing layers of heritage significance.
- Structures should not compete or contrast sharply with the rural landscape qualities in terms of massing, scale, height and design; no urban or suburban built form typologies.
- Structures should be visually recessive in the landscape; they should be nestled into rather than being superimposed onto the landscape.
- Natural features such as mountain backdrops, significant vegetation, slopes and water courses should be carefully considered in the design and planning of improvements.
- Retain the landscape setting of heritage places including views towards and from a place, as well as historical and visual spatial relationships between places.
- Do not introduce built form or landscaping patterns which erode the agricultural character of the working farm by establishing a clear interface between the agricultural components of the working farm and the homestead domains.

- Maintain landscape features contributing to the aesthetic and historical character of the landscape, e.g. treed settings of homesteads, tree lined avenues, windbreaks, forests, indigenous thicket, orchards and vineyards.
- Protect the rural quality of farm roads with careful consideration to the appropriate nature of boundary treatments, entrances, signage and road engineering interventions (road width, surfacing and edge treatments).

D.1.2 Guidelines for Infrastructure

Of direct relevance to this project are specific landscape guidelines for estate infrastructure. The following principles are highlighted:

- The need for emphasis on a low-key 'soft' engineering approach to infrastructure, particularly road and stormwater systems.
- Low-carbon or 'green' building methods are promoted, as well as waste minimalization and recycling as part of any new development.
- A major theme is the use of local stone from the farmland for stormwater channels, headwalls and gabions, which means that hardly any cement or concrete needs to be used for these structures, helping to reduce the carbon footprint of the Estate's infrastructure.
- Principles of Sustainable Urban Drainage Systems (SUDS) are to be implemented across the Founders' Estates, in both the Leasehold Areas and Excluded Areas, in order to increase natural infiltration of runoff across the whole Estate, and thereby avoid the need for hard engineering structures.

D.1.2.1 Access Roads

- Access roads should utilise existing farm roads and tracks wherever possible. New roads should be kept to a minimum.
- The upgrading of roads should retain their rural character in terms of road width, surfacing and edge treatments
- Access roads to the Development Areas should be as narrow as possible. The paved section of these roads would be kept narrow, ranging from 2,5 to 3,0m.
- Materials to be considered include grass, gravel, laterite, exposed aggregate concrete/pavers, cobbles and clay bricks.
- The road surface material is to be exposed aggregate interlocking pavers on the lower slopes and exposed aggregate *in situ* concrete on the steeper upper slopes, in keeping with precedent and the rural character of the Estate.
- Stabilised shoulders are to be provided for passing vehicles and farm tractors. No formal kerbs or gutters are permitted, and only natural stone or exposed aggregate edging is to be used. Aggregate to be a brownish sandstone type throughout.

D.1.2.2 Stormwater Channels

- All stormwater design to follow the approach of sustainable drainage systems (SUDS).
- No stormwater to be discharged directly into wetlands and water courses. Existing farm dams to be used for stormwater collection.
- Lined stormwater channels and pipes to be avoided where possible, as these increase the velocity of runoff water and cause potential flash-flooding and erosion downstream.
- Grassed swales and dry-packed stone channels, using local stone from the farm, are recommended to allow infiltration of runoff, which in turn replenishes ground water for dry periods.

• Where erosion gullies have formed, these to be filled and stabilized with suitable plant cover, depending on the location. Deep gullies to be regraded where necessary and stabilised with stone packing and/or gabion weirs, and re-vegetated with suitable plant species.

D.1.2.3 Drifts, Culverts and Bridges

- Drifts are recommended where access roads or farm roads cross drainage courses, swales and stormwater channels, depending on slope gradients being reasonably shallow.
- 'Reno' type mattresses would provide a suitable trafficable surface for drifts to prevent erosion, and avoid the need for concrete in or near water courses, and furthermore avoid the hardening of streambeds and banks.
- Culverts may be used where drifts are not practical, and should be as large as possible to prevent blockages, and allow for movement of fauna along drainage courses. For this reason, box culverts are preferred to pipes.
- Headwalls and wing walls are to be constructed of gabions using local stone, as these have the advantage of not requiring foundations, thereby avoiding the use of concrete in drainage courses or stormwater channels.
- Where stream embankments are high or steep, clear-span bridges are recommended for road crossings. Timber bridge construction is preferred in the rural context of the Estate.

D.1.2.4 Landscape and Civil Works

- New civil works or rehabilitation of disturbed areas across the Estate to be guided by the input of a professional landscape architect with experience working in the Cape Winelands.
- The cost of landscape rehabilitation, in relation to the provision of infrastructure or any civil works to be included in the civil construction tenders.

D.2 Archaeological Resources

All earthmoving in the sensitive precincts such as Nieuwedorp, Goede Hoop, and in the Silvermine precinct (specifically the ore processing mill sub-precinct) must be monitored to determine if traces of previous structures may be present in those sites.

E. ASSESSMENT OF HERITAGE IMPACTS

E.1 Impacts on Landscape Context

The proposals conform with the heritage indicators in terms of a positive response to the landscape guidelines.

E.1.1 Access Roads

- The proposals make use of existing roads and farm tracks.
- The engineering design of the internal estate roads conform with the landscape guidelines.in terms of road width, surfacing and edge treatments and ensure that the camber follows the slope thus reducing cut and fill.

E.1.2 Stormwater Channels

- The development of a proper stormwater management plan and details conform with the landscape guidelines.
- The Environmental Management Plan (EMP) must address the need for any erosion gullies to be stabilised with stone packing and /or gabion walls, and revegetated with suitable plant species.

E.1.3 River Crossings

- Concern was initially raised with respect to the use of concrete culvet pipes at river crossings. However, the proposals were amended to accommodate only box culverts as per the landscape guidelines.
- Provision has been made for headwalls and wing walls constructed of gabions using local stone.

E.1.4 Reservoir

• The new reservoir constructed directly adjacent to an existing reservoir and at a height of approximately 2m will have minimal visual impact.

E.1.5 Sewer Pump Station

• The proposed new pump station will be buried and therefore have minimal visual impact.

E.1.6 Landscape Rehabilitation

• There is a need for the rehabilitation of civils works to be done by a landscape contractor and overseen by a landscape architect and for this to be included in the EMP.

E.2 Impacts on Archaeological Remains



Figure 28: Bulk Services Footprints in relation to Founders' Estates (yellow squares). Sensitive Archaeological Areas: Nieuwedorp – white; Goede Hoop – turquoise; Mining Landscape – purple. Services: dark blue – water; rising main – light blue; electrical – pink; foul sewers – red, fibre optic – dark red, road sections – yellow lines; irrigation connections - dark purple

The findings and recommendations of the archaeological assessment of proposed bulk services are set out below.

E.2.1 Pre-Colonial Archaeology

Few pre-colonial archaeological resources in the bulk services footprints which are for the most part in disturbed areas. A few isolated ESA artefacts were found is disturbed agricultural areas. No LSA or MSA material was observed.

E.2.2 Historic Remains

Visible historic resources were limited in the bulk services footprints on Founders' Estates, and since no new resources were identified beyond those described by Hart (2005), earlier recommendations remain applicable. All earthmoving in the sensitive precincts such as Nieuwedorp, Goede Hoop, and in the Silvermine precinct (specifically the ore processing mill sub-precinct) must be monitored to determine if traces of previous structures may be present in those sites.

Trenching for bulk services outside those areas may proceed without monitoring or mitigation.

E.2.2.1 Ore Processing Mill Sub-Precinct

The location of the rising water main pipeline within the road close to the ore processing mill will have a potential impact on archaeological remains associated with this complex. The following mitigation measures are recommended:

- Any trenching along the approximately 50 m trench section of the road in the vicinity of the two historical structures will need full-time monitoring by a professional archaeologist for the duration of the works.
- An archaeological monitoring programme between the archaeologist and the contractor must be agreed to well in advance of the commencement of any excavation activities in this area.
- The trenching should be done initially by hand but and if deemed safe to do by the archaeologist say can then proceed with a mini trench digger.
- In the event that archaeological material is uncovered it may be necessary to stop work until the recording and safeguarding of archaeological material is undertaken;
- In order to avoid delays in the overall project programme it is advisable to first commence work on this section of the pipeline.
- The Section 27 permit application to SAHRA should make provision for an archaeological excavations in the event of archaeological material being uncovered.

E.2.2.2 Goede Hoop

All trenching in the precinct is to be monitored. Few new services are indicated in the core of the precinct but services will be provided to the development area known as Site FE16B. While electrical and water services pass by the cemetery, they are several meters distant. While burials outside the walled cemetery are not anticipated, excavations in this area will need be monitored and if any remains are encountered, services will need to be relocated.

An archaeological monitoring program between the archaeologist and the contractor must be agreed to well in advance of the commencement of any excavation activities in this area.

E.2.2.3 Nieuwedorp

All bulk services trenches in the sensitive precinct need to be monitored. Particularly those around the site known as FE11 (Nieuwedorp Cottage and Barn).

An archaeological monitoring program between the archaeologist and the contractor must be agreed to well in advance of the commencement of any excavation activities in this area.

F. ASSESSMENT OF HERITAGE IMPACTS RELATIVE TO SOCIAL ECONOMIC BENEFITS

The social-economic benefits of the development are limited to the installation of new service infrastructure and the expansion of existing infrastructure to ensure that the entire Founders' Estates is serviced. This will enable the individual Founders' Estates portions being released to market by Boschendal (Pty) Ltd.

Given the acceptable level of heritage impact of the proposed development, social-economic benefits derived from the development are not necessary in order to off-set any heritage impacts.

G. OUTCOME OF THE CONSULTATION PROCESS

The draft Heritage Statement was submitted to the following registered conservation bodies:

- Pniel Heritage and Cultural Trust
- Franschhoek Heritage and Ratepayers Association
- Stellenbosch Interest Group (SIG)
- Stellenbosch Heritage Foundation
- Drakenstein Heritage Foundation (DHF)

Comments received included a comment from SIG indicated that it supported the proposals and a comment from DHF requesting that it provided with an opportunity to comment on future applications involving the development of the individual Founders' Estates.

H. CONCLUSIONS AND RECOMMENDATIONS

The Heritage Statement focuses on two primary heritage issues affected by the proposed development:

- Assessing the impact of the roads and storm water infrastructure on the landscape character of the Founders' Estates including reference to the Founder Estates Design Guidelines (2010) and draft Landscape Plan and Guidelines (2020).
- Assessing the impact of the proposals on archaeological resources including recommendations for the avoidance of areas of high archaeological sensitivity and/or archaeological monitoring

The findings of this Heritage Statement are that the proposed bulk services are largely in accordance with the landscape guidelines with an emphasis on a low-key 'soft' engineering approach to infrastructure, particularly road and stormwater systems.

In terms of potential impacts on archaeological remains, three areas of potential sensitivity were identified, namely the area around the ore-processing mill precinct related to the silvermine, the area around Goede Hoop and the area around Nieuwedorp.

It is recommended that a Section 27 NHRA permit be issued for proposed development subject to the following conditions:

- Rehabilitation of civils works to be done by a landscape contractor overseen by a landscape architect and for this to be included in the EMP.
- Archaeological monitoring of any excavation work within the vicinity of the ore-processing mill precinct, Goede Hoop and Nieuwedorp as per the recommendations set out in E.2 of the report.
- Submission of a close out report to SAHRA within 30 days of practical completion of the work.

REFERENCES

Boschendal Founders' Estates' Design Guidelines (2010)

Baumann, Nicolas and Winter, Sarah (2006). Boschendal Farmlands Founders Estates Heritage Impact Assessment. Prepared for Boschendal (Pty) Ltd

Baumann, N., Winter, S., Dewar, D. and Louw, P. Heritage Impact Assessment: Boschendal village node, Portion 7 of Farm 1674 and Portion 10 of Farm 1674, Boschendal, Stellenbosch Municipality, August 2017. Prepared for Boschendal (Pty) Ltd

Hart, T (2005). Archaeological Impact Assessment of the proposed Founders Estate, Boschendal. Unpublished report prepared for Baumann and Winter Heritage Consultants. Archaeology Contracts Office, UCT

Hart, T (2020). Draft Archaeological Residues Conservation Management Plan for the Founders' Estate, Boschendal. Unpublished report prepared for Boschendal Pty Ltd. ACO Associates cc

Kaplan, J. (2005a). Phase 1 Archaeological Impact Assessment Proposed development of Boschendal Lands, Dwars River Valley. Unpublished report prepared for Doug Jeffery Environmental Consultants. Agency for Cultural Resource Management

Lucas, G, De Villiers J, Abott, M & Hall, A. (n.d.) 'Goede Verwachting: An Eighteenth century Silver Mine at the Cape. Unpublished report. Fornleifastofnun Íslands, Barugata 3, 101 Reykjavík, Iceland

Lucas, G. (2004). An Archaeology of Colonial Identity. Power and Material Culture in the Dwars Valley, South Africa. London: Kluwer Academic

Malan, A. 2016. An Archaeological, Archival, Oral and Spatial History [online]. Available at: http://www.stellenboschheritage.co.za/wpcontent/uploads/ [Accessed 15 may 2020].

Oberholzer, Bernard (2020. Draft Landscape Plan and Guidelines for Boschendal Founders' Estates. Prepared for Boschendal (Pty) Ltd

Orton, J. (n.d.). The Stone Age at Delta: The Evidence of Artefacts. Unpublished manuscript

Rennie Scurr Adendorff (2019). Boschendal Baseline heritage report. Prepared for Boschendal (Pty) Ltd. Cape Town: RSA Architects

Titlestad, S. (2008). Drakenstein Valley, Boschencal Estates Timeline and Catalogue of Historical Images and Evidence. Unpublished report for Boschendal Ltd. Cape Town: Titlestad.

Vos, H. (2004). Zilvermijn at Simonsberg. Unpublished report

Vos, H. (2004). De Goede Hoop Farm, Dwars River Valley, Drakenstein: Historical Survey of the Owners. Unpublished Report for Boschendal Estate.

Winter, S. (2020). Unpublished SAHRA information package

Winter, Sarah and Rennie Scurr Adendorff Architects (2021). Heritage Statement: Kropman Village, Nieuwedorp, Founders' Estates National Heritage Site, Boschendal Farmlands, Dwars River Valley, Stellenbosch. Prepared for Founders Estates 11 (Pty) Ltd

Winter, Sarah, Rennie Scurr Adendorff Architects (2021). Heritage Statement: Tented Camp, Farm 1685 Portion 5, Founders Estates, Boschendal, Dwars River Valley, Stellenbosch. Prepared for Founders' Estates 5 (Pty) Ltd