SOUTH AFRICAN ASTRONOMICAL OBSERVATORY

ERF 26423-0-2, OBSERVATORY, CAPE TOWN

NEW OFFICE FOR SOUTH AFRICAN ENVIRONMENTAL OBSERVATION NETWORK

HERITAGE IMPACT ASSESSMENT REPORT

Prepared in terms of Section 38 (1, 3 & 4) of the National Heritage Resources Act (Act 25 of 1999)

HWC CASE NUMBER 160802003WD0803E

Royal Observatory (1854) by Thomas Bowler (SAAO Archives)

Prepared for
SAAO, National Research Foundation

Prepared by
Sarah Winter

August 2017

TABLE OF CONTENTS PAGE

EXECUTIVE SUMMARY

Heritage Impact Assessment carried out in terms of Section 38 (1, 2, 3 & 4) of the National Heritage Resources Act (Act 25 of 1999; NHRA).

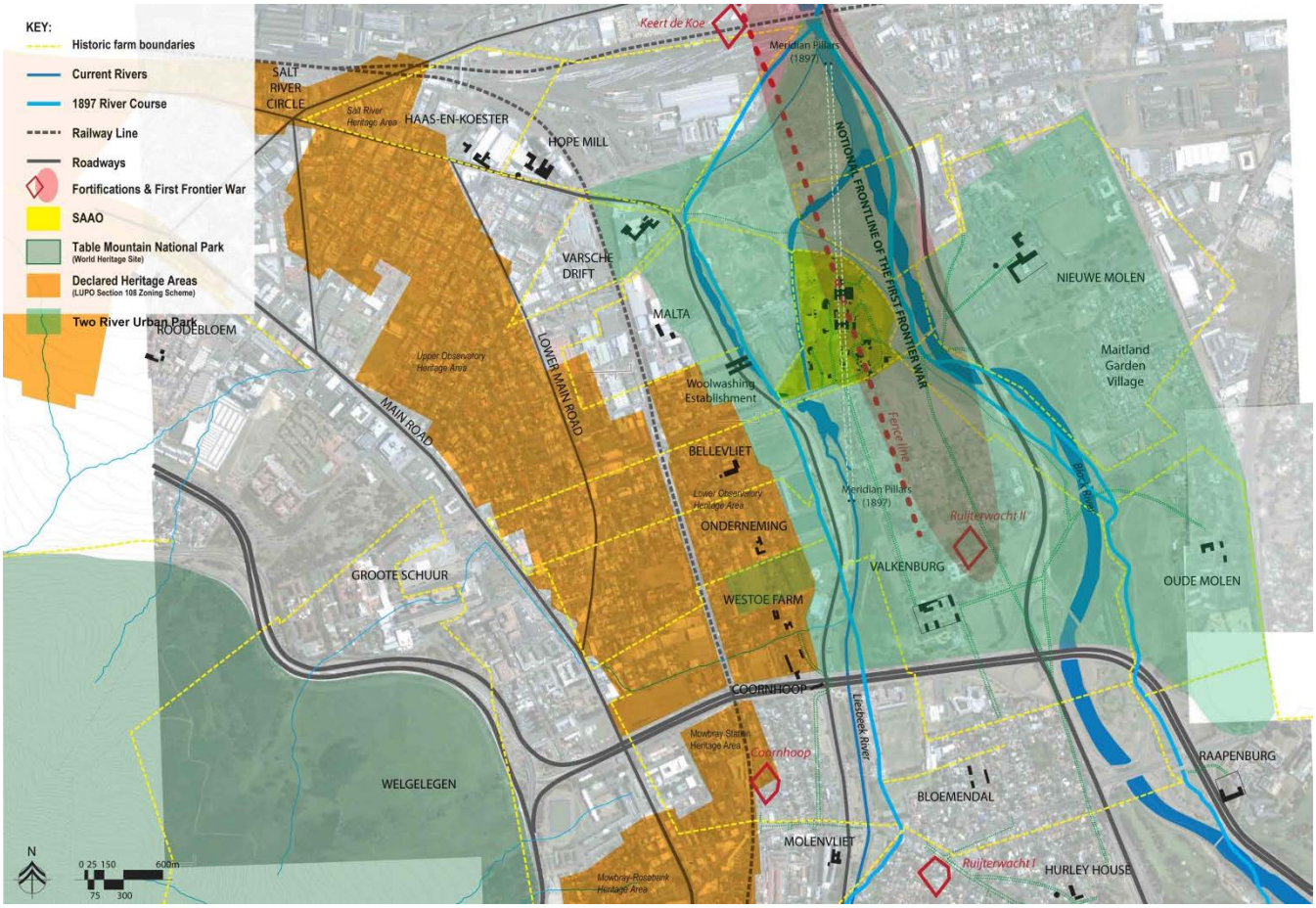
1. SITE NAME

South African Astronomical Observatory

2. LOCATION

Erf 26423-0-1, Observatory in Cape Town forming part of the Two Rivers Urban Park (TRUP); 33.9347°S 18.4776°E.

3. LOCALITY PLAN



4. DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development is for a new office for the South African Environmental Observation Network (SAEON). It is a single storey mono-pitched building comprising two rectangular blocks and linking element with a total footprint of 286m^2 located in the south-east quadrant of the Observatory. A workshop/garage and informal gravelled parking areas for 14 parking bays is also proposed.

5. HERITAGE RESOURCES IDENTIFIED

The SAAO considerable historical, scientific, aesthetic, architectural and social significance and has been graded by SAHRA as Grade I. The site forms an integral part of TRUP which has been identified by HWC as Grade II in

terms its pre-colonial and early colonial history particularly in term of its associations with colonial expansion and defence and Khoekhoen resistance during the mid-17th century. TRUP has high local significance as a green environmental room embedded within the structure of the City. The institutional layering and environmental significance of TRUP represents a place of scientific inquiry, healing and quietude in the heart of the city.

The SAAO has very high historical significance as a scientific institute dating to the early 19th century and the first permanent observatory in the southern hemisphere. It is associated with a number of astronomical advances of international significance from the 1830s. It has considerable aesthetic significance with a number of architecturally significant buildings and a distinctive dome typology set within a wooded landscape at the confluence of the Liesbeek and the Black Rivers. The Main Building and McClean Observatory structure the central shaft of space. This is in contrast to the periphery of the site, where structures are more loosely arranged, particularly within the south-east quadrant where the proposed SAEON office is located.

A number of conservation-worthy structures are situated within the south-east quadrant of the Observatory and adjacent to the proposed new building.

1. RNA Building (1898) Grade IIIC
2. Kine Theodolite (1957) Grade IIIC
3. 6 Inch Telescope (1935) Grade IIIC
4. Astrographic telescope (1890) Grade IIIC
5. House 3 (Pre 1900) Grade IIIB
6. House 4 (Pre 1900) Grade IIIB
7. House 5 (1888-1915) Grade IIIC
8. House 7 (Pre 1863) Grade IIIB
9. Sidereal Clock House (1900) Grade IIIC
10. Jacaranda House/House 6 (1863-1888) Grade IIIB

Landscape features of significance include the woodland setting to the east of the site including a specimen Cypress tree.

Three trenches were dug across the site to establish the position of existing services including electrical and fibre optic cabling. The inspection of the site by a professional archaeology established that no archaeological material had been uncovered. However, it was advised that the digging of foundations for the proposed new building be subject to archaeological monitoring.

6. ANTICIPATED IMPACTS ON HERITAGE RESOURCES

The principle of locating an office building for SAEON within the SAAO site is compatible with the enduring scientific, institutional and environmental role of the place over time. However, consideration needs to be given to the built environment and landscape qualities of the site at various scales with specific emphasis on the siting, orientation, height, scale, massing, roof form, architectural treatment and landscaping of the proposed development.

The proposed building complies closely with the heritage indicators identified in the report particularly in terms of its siting, orientation, height, scale, massing, roof form and architectural treatment. The building has been carefully sited and sensitively designed to minimise heritage impacts on the built environment and landscape qualities of the site.

While the removal of four mature Eucalyptus trees will have some heritage impact, this can be mitigated by the planting of additional trees to strengthen the woodland character of the site to the east.

Given the long history of use of the site and the potential for archaeological remains to be uncovered, the digging of foundations for the proposed new building should be subject to monitoring by a professional archaeologist. A monitoring plan must be submitted to HWC which makes provision for an archaeologist to be present on site to

monitor the onset of excavation work and to advise on the need for follow up monitoring once the initial excavations have been undertaken.

7. OUTCOME OF CONSULTATION PROCESS

A copy of the draft HIA report has been submitted to the City of Cape Town Heritage Section of the Environmental Management Branch, the South African Heritage Resources Agency, the Observatory Civic Association and the Two Rivers Urban Park Association for a 30 day commenting period. Comments received will be included in the final report submitted to HWC.

8. RECOMMENDATIONS

It is recommended that HWC endorse the report as having satisfied the requirements of Section 38 (3) of the NHRA and HWC's requirements for a visual impact assessment and a built environment and landscape assessment. It is recommended that HWC make a decision in terms of Section 38 (4) of the NHRA to approve the proposed development as indicated in drawings numbered C-0001-Rev B, C-0002-Rev B, C-0003-Rev B, C-0004-RevB, C-0005-RevB and C-0006-RevB, and dated 17th July 2017. It is recommended that approval be subject to the following conditions:

- The planting of replacement trees to mitigate the impact of the removal of four Eucalyptus trees and strengthen the woodland setting to the east of the site. New trees on the SAAO site should be non-invasive exotic and indigenous trees and therefore not limited to indigenous trees. Preference should be given to tall, evergreen species characterising the existing planting pattern and woodland setting of the site.
- A submission of an archaeological monitoring plan to HWC which makes provision for an archaeologist to be present on site to monitor the onset of excavation work and to advise on the need for follow up monitoring once the initial excavations have been undertaken.
- The submission of a close out report to HWC prepared by the principal architect and submitted within 30 days of practical completion of the project.

AUTHOR, EXPERTISE AND DECLARATION OF INDEPENDENCE

Name	Qualification	Professional Registration	Years of Experience
Sarah Winter	BA UCT 1989 Master of City and Regional Planning (UCT) 1995	APHP accredited member	Heritage consultant 17 years

Declaration of Independence:

Sarah Winter hereby declares her independence as a heritage consultant and declares that she does not have any interest, be it business, financial, personal or other, in any proposed activity on South African Astronomical Observatory, other than fair remuneration for professional work performed in connection with the Heritage Impact Assessment for this project.

Sarah Winter

A. INTRODUCTION

This Heritage Impact Assessment (HIA) report has been prepared in terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999; NHRA) and is submitted to Heritage Western Cape (HWC) for a decision in terms of Section 38 (4).

The proposed development is for a new office for the South African Environmental Observation Network (SAEON) within the South African Astronomical Observatory (SAAO), erf 26423-0-1, Observatory in Cape Town.

The development triggers Section 38 (1) (c) of the NHRA as it will change the character of a site exceeding 5000m2. A Notification of Intent to Develop (NID) was submitted to HWC in August 2016 and in response to the NID HWC requested a HIA that satisfies the provisions of Section 38 (3) of the NHRA and includes the following specialist studies:

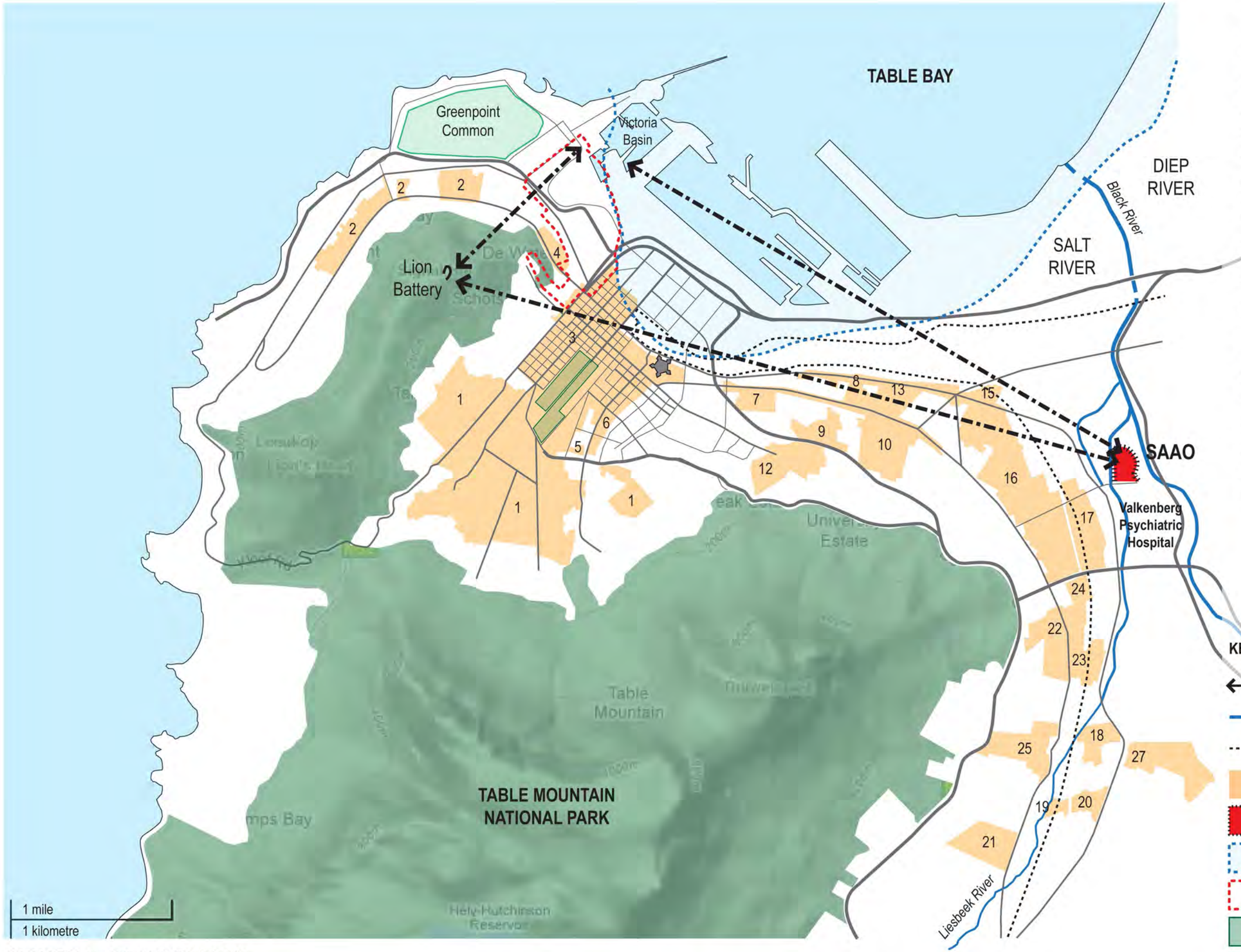
- Visual Impact Assessment
- Built environment and landscape assessment focusing on the architectural treatment of the proposed office building, parking and access arrangements, and landscaping treatment.
- Comments of relevant registered conservation bodies and the City of Cape Town.

A copy of the HWC's response to the NID dated 12th August 2016 is attached as Appendix A.

In 2008 the South African Heritage Resources Agency (SAHRA) graded the SAAO as a Grade I heritage resource in terms of its historical, scientific, aesthetic and architectural significance.

The HIA report draws extensively on the SAAO Heritage Survey prepared by Baumann & Winter for the National Research Foundation (2011). This report was endorsed by SAHRA and is intended to accompany the declaration of the SAAO as a national heritage site. The nomination process is still in progress.

The SAAO falls within the Two River Urban Park (TRUP). The HIA for the SAEON office has been undertaken during the process of preparing an overarching Development Framework for TRUP including the preparation of a Phase I Heritage Baseline Study as part of a separate NHRA Section 38 heritage process. Given the modest nature and scale of the proposed SAEON office within the context the SAAO and its potential local impacts relative to the extent of the broader TRUP study area, discussions with HWC in August 2016 confirmed that the Section 38 process for the proposed SAEON office could comfortably proceed as a discrete application ahead of the outcome of the broader TRUP HIA process.



HERITAGE AREAS IN CAPE TOWN

Upper Table Valley Areas 1
Sea Point, St Bedes, Green Point 2
Central City 3
Loader Street, Waterkant 4
Wandel Street, Lower Gardens 5
Maynard Street, Lower Gardens 6
Chapel Street, Woodstock 7
Cavendish Square, Woodstock 8
Queens Road , Woodstock 9
Regent Street, Woodstock 10
Roodebloem Road, Woodstock 11
Chester/Coronation Street, Woodstock 12
Albert Road, Woodstock 13
Victoria Road, Woodstock 14
Salt River 15
Upper Observatory 16
Lower Observatory 17
Belmont Road, Rondebosch 18
St Michael's, Rondebosch 19
Lower Rouwkoop Road, Rondebosch 20
Westerford, Rondebosch 21
Mowbray-Rosebank 22
Little Mowbray 23
Mowbray Station 24
Upper Rondebosch 25
Wynberg Village 26
Silwood 27

Areas in Bo-Kaap, Lower Rosebank, parts of Wynberg and Langa have been identified as future Heritage (conservation) Areas yet to be declared. Areas in Claremont, Harfield Village and Newlands Village have been identified as "Special Areas" due to their heritage value.

FIGURE 1: CITY CONTEXT

FIGURE 2: LOCAL CONTEXT

KEY:

- Historic farm boundaries
- Current Rivers
- 1897 River Course
- Railway Line
- Roadways
- Fortifications & First Frontier War
- SAAO
- Table Mountain National Park (World Heritage Site)
- Declared Heritage Areas (LUPO Section 108 Zoning Scheme)
- Two River Urban Park

SALT RIVER CIRCLE
Salt River Heritage Area
HAAS-EN-KOESTER
HOPE MILL
Keert de Koe
Meridian Pillars (1897)
NOTIONAL FRONTLINE OF THE FIRST FRONTIER WAR
VARSCHE DRIFT
MALTA
NIEUWE MOLEN
Maitland Garden Village
ROODEBLOEM
Upper Observatory Heritage Area
LOWER MAIN ROAD
MAIN ROAD
Woolwashing Establishment
Fence line
BELLEVLIET
Lower Observatory Heritage Area
ONDERNEMING
Meridian Pillars (1897)
Ruijterwacht II
Black River
VALKENBURG
OUDE MOLEN
GROOTE SCHUUR
WESTOE FARM
COORNHOOP
Liesbeek River
Mowbray Station Heritage Area
Coornhoop
RAAPENBURG
WELGELEGEN
BLOEMENDAL
MOLENVLIET
Ruijterwacht I
HURLEY HOUSE
Mowbray-Rosebank Heritage Area

N

0 25 150 600m
75 300

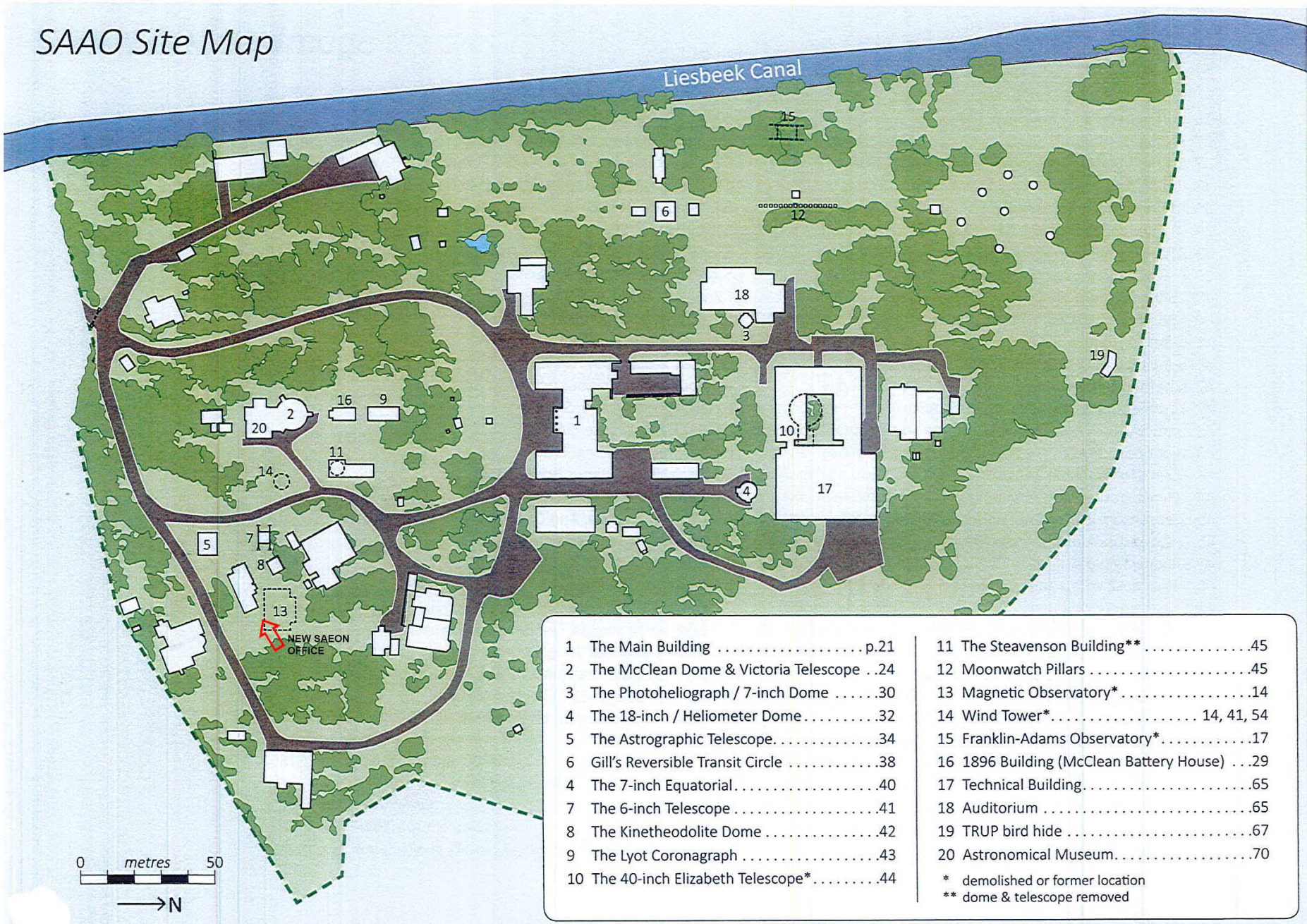


FIGURE 3: SITE LOCATION PLAN (Adapted from Glass 2015)

FIGURE 3.1: SITE LOCATION PLAN (AERIAL)

B. SITE DESCRIPTION

The City and local context of the SAAO are illustrated in Figures 1 and 2. It is located at the confluence of the Liesbeek and Black Rivers on a rocky mound of Greywacke and sandstone running approximately in a north-south direction which is reinforced by the siting and alignment of structures at the centre of the site, particularly in terms of the axial relationship between the Main Building and McClean Observatory and their landmark presence within the central shaft of space. Towards the periphery of the site, structures are more loosely arranged, particularly within the south-east quadrant where the proposed SAEON office is located.

A characteristic of the site is its woodland setting, providing a protective tree canopy and strong tree line and visual screening element from the Black River Parkway. A further characteristic is the dome typology of a number of structures and with views towards the McClean and Astrographic domes from the Black River Parkway.

The site of the proposed SAEON office is levelled after being previously used as a tennis court with a sloping woodland setting to the east.

PHOTO 1: View of Observatory from Black River Parkway (northbound) showing dome of McClean Observatory

PHOTO 2: View of Observatory from Black River Parkway (northbound) showing dome of Astrographic Telescope

PHOTO 3: View of Observatory from Black River Parkway (southbound) showing dome of McClean Observatory

PHOTO 4: Levelled site of the proposed SAEON office with surrounding structures (left to right): Astrographic Telescope, RNA Building, Jacaranda House (rear) and Sidereal Clock House

PHOTO 5: Sloping woodland setting to the east of the site towards the Black River. The large Cypress tree to the far right will remain and four mature Eucalyptus tree to the left are to be removed.

PHOTO 6: Oblique aerial view of the site

PHOTO 7: Aerial view of the site with surrounding structures

Within immediate proximity to the site are the following structures:

- RNA Building (1898)
- Kine Theodolite (1957)
- 6 Inch Telescope (1935)
- Astrographic telescope (1890)
- House 3 (Pre 1900)
- House 4 (Pre 1900)
- House 5 (1888-1915) (associated garages)
- House 7 (Pre 1863)
- Sidereal Clock House (1900)
- Jacaranda House/House 6 (1863-1888)

The location of these structures is indicated on Figures 3, 13 and 14, as well as on the site development plan. Map reference numbers on Figures 13 and 14 are indicated in the captions to the photographs below.

PHOTO 8: Main Observatory Building (1)

PHOTO 9: McClean Observatory (3)

PHOTO 10: RNA Building (31)

PHOTO 11: Kine Theodolite (88)

PHOTO 12: 6 Inch Telescope (89)

PHOTO 13: Astrographic Telescope (8)

PHOTO 14: Houses 3 and 4 (13 and 14)

PHOTO 15: House 5 (17)

PHOTO 16: House 7 (16)

PHOTO 17: Sidereal Clock House (30)

PHOTO 18 & 19: Jacaranda House (15); side western elevation (left) and front northern elevation (right)

PHOTO 20: Garages adjacent to House 5 (17). Garage on right is to be demolished and replaced with new a garage/workshop and parking

PHOTO 21: Area of proposed garage/workshop

C. DESCRIPTION OF PROPOSED DEVELOPMENT

The proposals are indicated in drawings numbered C-0001-Rev B, C-0002-Rev B, C-0003-Rev B, C-0004-RevB, C-0005-RevB and C-0006-RevB, dated 17th July 2017. They are accompanied by a set of photo-montages numbered PM 01 to PM 12.

The proposed development is for a new office and admin facilities for SAEON. SAEON is a science network of people, organisations and platforms performing long-term ecological research in South Africa and its surrounding oceans, and has become a leader in environmental science and observation in South Africa particularly in understanding environmental change.

The brief initially looked at repurposing existing structures on the site for this usage but this proved not possible and the project was reconceived as a new building. Alternate sites across the Observatory were looked at before the proposed site was chosen. The existing site sits on previously disturbed ground on the periphery of the SAAO site to the south-east of the main telescope and dome.

The proposal is for a single storey mono-pitched building comprising two rectangular blocks and linking element with a total footprint of 286m^2.

The blocks have been subtly angled to take into account the informal arrangement and orientation of surrounding buildings. The height of the building has been designed to fit in with the single storey height of surrounding structures and to minimise any potential visual impact including views to and from the site. The fragmentation of the built form into two wings has been designed to create a sense of fit in relation to the modest scale and massing of surrounding structures.

The building has been positioned to provide the surrounding conservation-worthy structures with sufficient breathing space. This will necessitate the removal of four mature Eucalyptus trees forming part of the woodland setting to the east. These trees are not regarded as significant specimen trees and the specimen Cypress tree located on the south-east corner of the development site will remain. Apart from the removal of these trees, the overall sloping woodland to the east will remain largely intact.

A mono-pitched parapet roof language is utilised for the new building in order to downscale the building further and to set it apart from the domestic structures on the site.

The architectural treatment of the new building is played down to read as a modern building but at the same time picking up the scale, form, colour and texture of the surrounding structures. It is to be conventional building fabric: corrugated iron; near domestic scale; plastered and brick walls; and modest shuttered fenestration making use of more durable powder-coated aluminium.

Views of the site (with the new building on it) have been tested from the M5 to ensure that the views of the McClean Telescope and Astrographic Telescope are not impacted on.

A workshop/garage and informal gravelled parking area is proposed to the west of House 5. The parking area is to accommodate 8 parking bays. A further 6 angled bays are proposed adjacent to the RNA building. An existing garage is to be demolished. A small section of new road is proposed to allow access across the one-way into the proposed parking area.

D. HISTORICAL OVERVIEW

Outlined below is a historical overview of the site, its patterns of use and settlement, landscape character, associations and role within TRUP. It identifies key events and figures shaping astronomical development in South Africa and the role of the site as an internationally recognized scientific institution.

D.1 Pre-establishment of Royal Observatory

The physical qualities of the site are derived primarily from its location at the confluence of the Liesbeek and Black Rivers, which together with the Salt and Diep Rivers created an extensive estuarine system.

The Liesbeek Valley would have been suitable hunting, gathering and grazing ground for indigenous hunter-gathers and herders. The Cape Peninsula provided suitable summer pasturage, and at least two groups of Khoekhoen, the Gorachoqua and Gorinhauqua, used the area as part of an annual transhumance pattern. In the early 17th century the Cochoqua extended their grazing routes from Saldanha to Table Bay (Worden et al 1998).

With the establishment of a VOC outpost in Table Valley in the mid-17th century, land cultivation and pasturage became critical to the survival of the refreshment station. Well watered, fertile soil and sheltered wind conditions made the Liesbeek Valley suitable for food production. The VOC thus extended settlement to the Liesbeek Valley; fenced, fortified and farmed it. Freehold grants were allocated along Liesbeek River, Valkenberg being one of several farms located between the Liesbeek and Black Rivers (Sleigh 1998; Worden et al 1998).

The expansion of colonial settlement eastwards worsened relationships between the Dutch and Khoekhoen with growing tensions and disputes over access to land. Open conflicts broke out (1659-1660) within the Liesbeek Valley which would have been regarded as a 'war-zone'. At this time, a watch house (Ruitenwacht) was built on the hill between the Liesbeek and Black Rivers to the south of the Observatory. It formed part of the "begrepen circle", the boundary to land 'claimed' by the VOC (Sleigh 1998; Worden et al 1998).

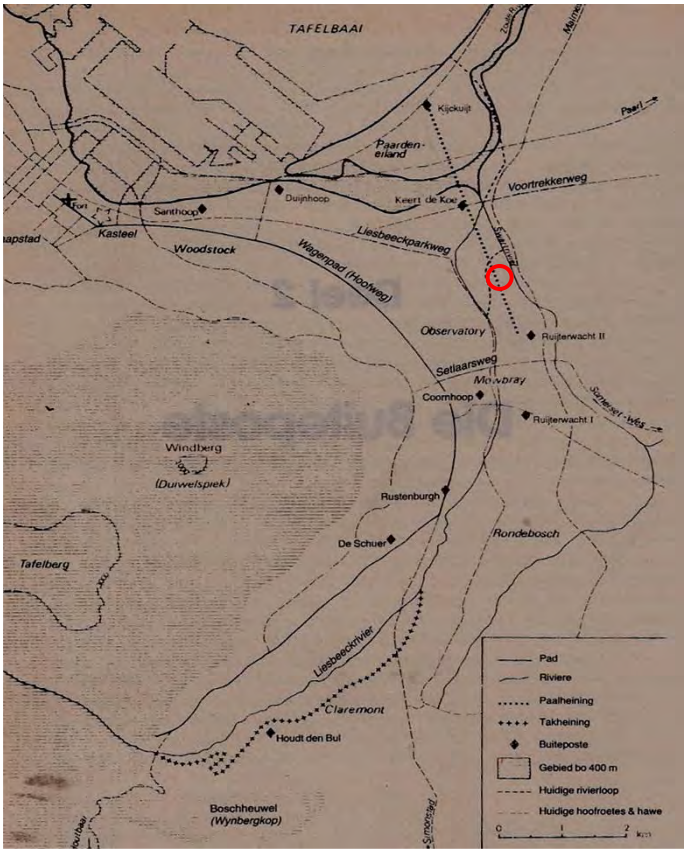


FIGURE 4: VOC Outposts c1661 (Sleigh, Die Buitenposte, pp 139-142, 1998). The approximate site of the SAAO is earmarked.

Refer to FIGURE 2 showing location of VOC fortifications and notional zone of the 'First Frontier War'.

The Department of Arts and Culture (DAC) launched the Khoisan Legacy Project in 2012. As part of this project, TRUP was identified as one of the sites included in a National Khoi and San Heritage Route. DAC has identified TRUP as the likely location of the 1510 d'Almeida conflict and earliest site of conflict between the Khoekhoen and colonial powers. The Western Cape Museum Services is in the process of investigating the D'Almeida conflict and related significance of TRUP (Jenna Lavin pers. com. June 2017; www.westerncape.gov.za 2015).

The massacre of d'Almeida and his men by the Gorinhauqua was a significance event in the history of the Western Cape and South Africa in terms of the Khoekhoen's defence of land, stock and rights against Portuguese attack. Available documentary evidence does not locate the event within TRUP. However, it is acknowledge that that TRUP formed part of a zone of colonial expansion and defence, and Khoekhoen resistance during the mid-17th century (Attwell 2017; in preparation).

D.2 Royal Observatory (1820-1905)

The Royal Observatory at the Cape was formally established in 1820. Its purpose was to find accurate star positions and to provide a reliable time service to aid the navigation of ships (Laney 1995; Warner 1988).

The selection of a suitable site for the Observatory had to fulfil certain criteria. For example, it had to be in direct line of sight of Table Bay in order to pass visual time signals to ships. The site eventually selected was a portion of Valkenberg farm, a rocky mound between the swampy areas of the Liesbeek and Black Rivers (Laing 1970 *In* SAHRA Nomination 2008; Laney 1995).

The first royal astronomer at the Cape was Reverend Fearon Fallows. Under his direction, the main Observatory building was completed in 1828, designed by British Naval Architect, John Rennie. It was equipped with state of the art astronomical equipment (Laing 1970 *In* SAHRA Nomination 2008; Warner 1988).

The Observatory is recognised by major achievements in astronomy during the 19th century. To mention a few:

- Thomas Henderson was royal astronomer between 1831 and 1833. He achieved the first observations from which the distance of a star (other than the Sun) could be calculated (Glass 2010; Laney 1995).
- Thomas Maclear's arrival in 1834 marked an important phase of both astronomical and survey work. He re-measured Lacaille's Arc of Meridian (1751-1753), established the true shape of the earth in the southern hemisphere and made the first accurate geodetic surveys of Southern Africa (Laney 1995; Warner 1988).
- David Gill was royal astronomer between 1879 and 1905 and was a figure of world influence in astronomy. He pioneered the use of photography in accurately charting and measuring star positions. He was responsible for organizing a massive international effort to produce a detailed photographic 'Map of the Heavens' and produced the Cape Photographic Durchmusterung. Gill's Reversible Transit Circle was state of the art engineering to ensure exceptional stability and precision in positional measurements (Laing 1970 *In* SAHRA Nomination 2008; Laney 1995; Glass 2010).

Several astronomers left valuable drawings of the Cape (1839-1860), e.g. Sir John Herschel and Charles Piazzi Smyth. Its buildings and setting have also inspired artists to draw, paint and photograph the Observatory, e.g. Thomas Bowler and Charles E Peers (Warner 1988; Laney 1995; Glass 2010).

FIGURE 5: The Royal Observatory (1854) by Thomas Bowler (SAAO Archives)

D.2.1 Built Environment

The oldest dome dates from 1847 and is one of two remaining structures dating from the mid-19th century. During Maclear's lengthy period as Royal Astronomer, a Magnetic Observatory consisting of several buildings was built in the south-east corner of the site in 1841. One of these is part of the residence in the furthermost corner of the site (House 7) and another (The "Intensity House") is likely to have been incorporated into Jacaranda House (House 6). The main Magnetic building was located within the area of the proposed of SAEON office. The building was made of massive wooden beams fixed together with non-ferrous nails and lined inside, to create stability. The building was demolished in c1860 (Glass 1915).

FIGURE 6: 1850 map showing the Magnetic Observatory (red circled) situated in the area of the proposed SAEON office (*In* Glass 2015)

FIGURE 7: Map showing the Main Building of the Magnetic Observatory in relation to former tennis court and other associated structures, now embedded within Jacaranda House and House 7 (in orange) (Glass 2015)

Under Gill's direction, numerous telescopes and auxiliary instruments were erected. Some of these are important in the history of astronomy in South Africa and the world. Examples include the McClean Telescope (1896), the Reversible Transit Circle (1901), the 18 Inch Telescope (1887) and Astrographic Telescope (1890).

FIGURE 8: Lithograph of McClean dome, a Herbert Baker building, by artist and astronomer Charles E. Peers (c 1930) (SAAO Archives)

D.2.2 Cultivated Landscape

Until 1820 the SAAO site was treeless and covered in low scrub. The extensive planting of pine trees was carried out in the 1930s to moderate the wind. A prominent feature of the site today are many, large trees that structure the landscape, provide a protective canopy and create a generous, informal park-like setting (Glass 2010).

D.2.3 Surrounding Landscape

The suburb of Observatory developed from the last quarter of the 19th century. While the landscape between and adjacent the two rivers remained agricultural in character well into the 20th century, it increasingly began to take on an institutional role with the establishment of the Royal Observatory (1821), Valkenberg Hospital (1881), Oude Molen (1912) and Nieuwe Molen Military hospital (1901).

FIGURE 9: Plan of the Observatory c 1888 showing treed landscape and rapid development that occurred during Gill's period (SAAO Archives)

D.3 Royal Observatory (1905-1970)

The Observatory continued to be recognised by major achievements in astronomy particularly in the cataloguing of precise star positions with the new RTC and analysing star brightness. The period following the end of World War II was noted for experiential "Fabry" photometry by Alan Cousins and his development of equipment and a methodology for photoelectric photometry using photomultipliers (Laney 1995).

D.3.1 Built Environment

A number of structures and buildings were erected during this period. Examples include the new Administration Building (1920s), RNA Building (1920s), 6 Inch Telescope (1935) and Kinetheodolite (1957).

D.3.2 Cultivated Landscape

Between 1933 and 1947 many of the trees planted in the 1830s were dying and were then replaced by the planting of Eucalyptus trees characterizing the site today.

D.3.3 Surrounding Landscape

After World War II the City embarked on an ambitious freeway development program including Settler's Way, and the Black River and Liesbeek Parkways in the 1960s. The canalisation of the Black and Liesbeek Rivers was undertaken in the 1940s.

FIGURE 10: View of the Observatory c 1931. The dome of the McClean telescope is a prominent feature in the landscape (SAAO Archives)

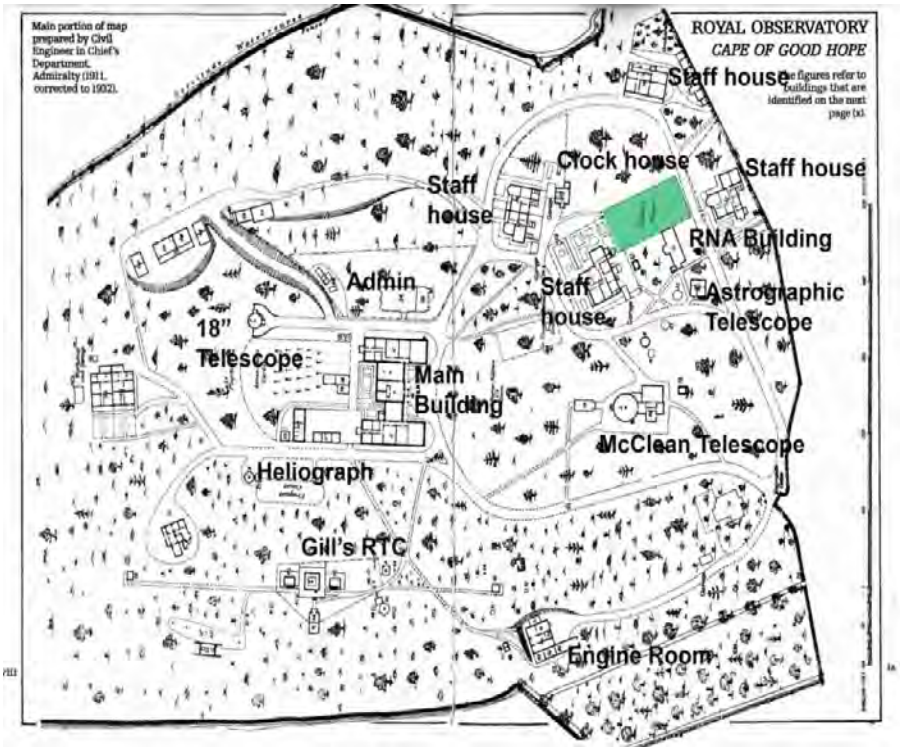


FIGURE 11: Plan of the Royal Observatory 1911, corrected 1932. (Warner 1988).

Highlighted in green is an area marked 'Tennis Court which is the site of the proposed SAEON office.

D.4 South African Astronomical Observatory (1970 onwards)

In 1972 the SAAO was formed by an amalgamation of the Royal Observatory with the Republic Observatory in Johannesburg. Telescopes were relocated to Sutherland in the Northern Cape, which became the observation station for the SAAO (Laney 1995).

The SAAO continues to be revered internationally and occupy a central place in the development of South African science. Research has concentrated on understanding the nature and life cycle of stars and galaxies. In 2005 the Southern African Large Telescope (SALT) was built in order to carry out first class research within the southern hemisphere. It is the largest single optical telescope in the southern hemisphere and one of the largest in the world (Laney 1995; Glass 2010).

D.4.1 Built Environment

The biggest impact on the landscape since the 1970s has been the construction of the Technical Building in 1987 to the north of the Main Building.

D.4.2 Cultivated Landscape

The protective tree canopy is important part of the site's character and the planting of trees has become an on-going tradition for SAAO staff.

D.4.3 Surrounding Landscape

The institutional use of the surrounding landscape has ensured that it has remained relatively undeveloped unlike most of the land along the Black and Liesbeek Rivers. In 1998 the City of Cape Town initiated a process for the establishment of an urban park at the confluence of the Black and Liesbeek Rivers (TRUP) which is currently in the Development Framework stage of planning process.

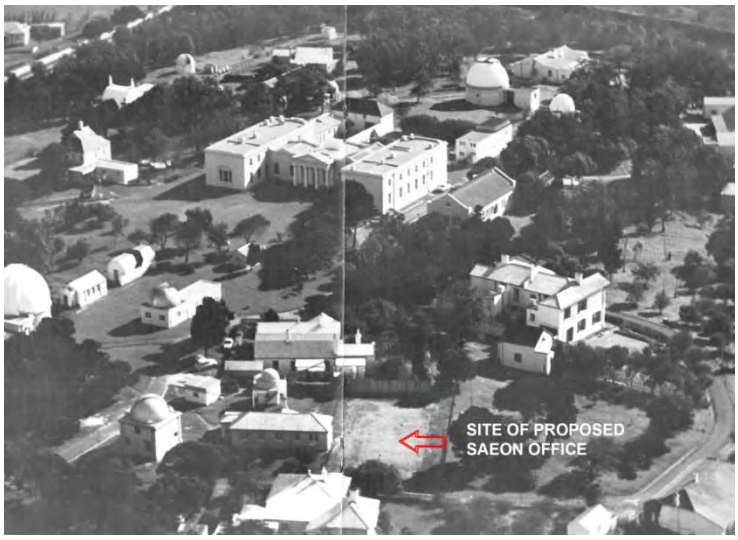
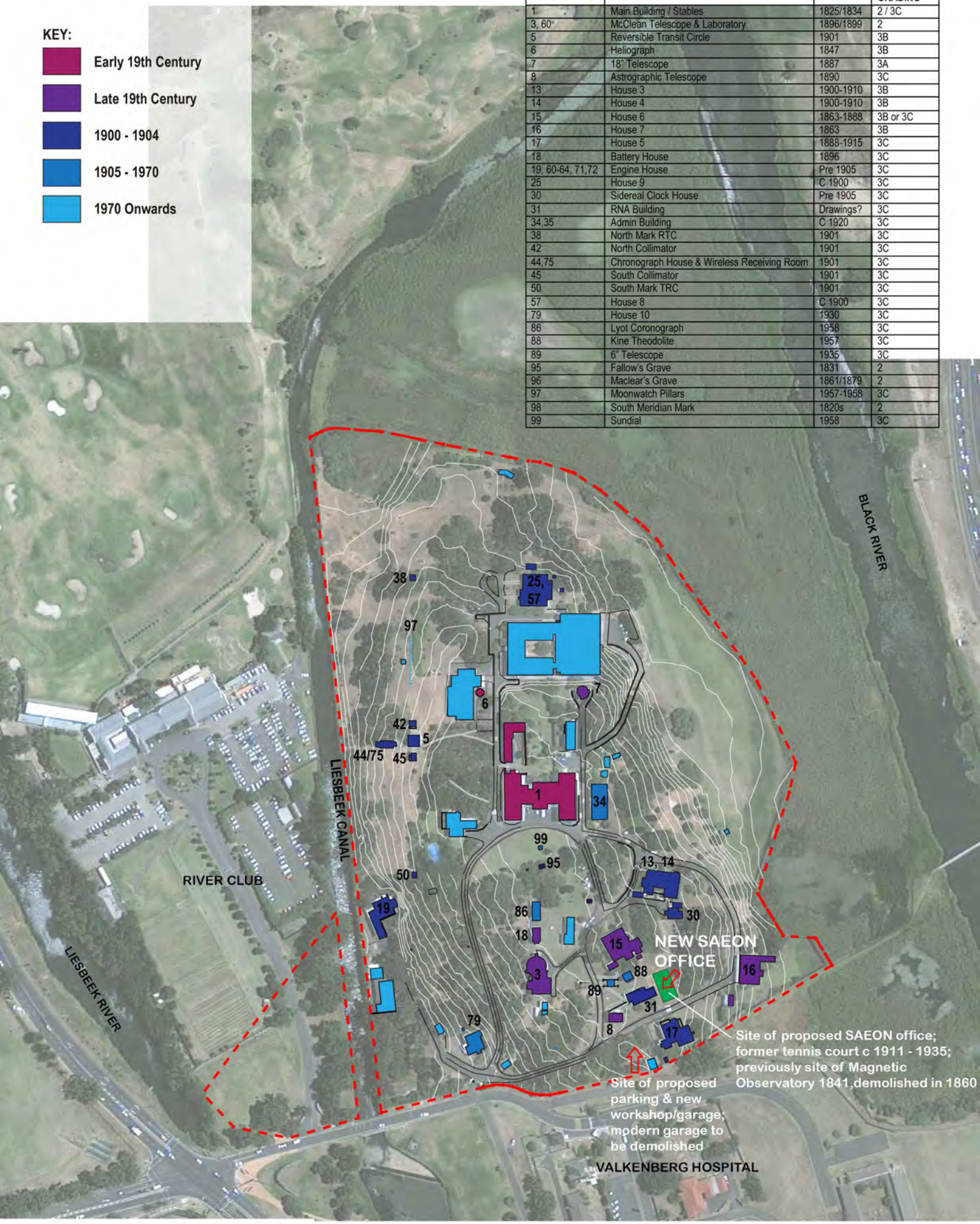


FIGURE 12: Aerial view of Observatory c 1970 showing the site very much as it is today with the exception of the area to the north of the Main Building which is now the site of the 1987 Technical Building (Field *In* Laing 1970)

The historical built form chronology of the site is illustrated in Figure 13.



REF	NAME	PERIOD	SUGGESTED GRADING
1	Main Building / Stables	1825/1834	2 / 3C
3, 60	McClean Telescope & Laboratory	1896/1899	2
5	Reversible Transit Circle	1901	3B
6	Heliograph	1847	3B
7	18" Telescope	1887	3A
8	Astrographic Telescope	1890	3C
13	House 3	1900-1910	3B
14	House 4	1900-1910	3B
15	House 6	1863-1888	3B or 3C
16	House 7	1863	3B
17	House 5	1888-1915	3C
18	Battery House	1896	3C
19, 60-64, 71,72	Engine House	Pre 1905	3C
25	House 9	C 1900	3C
30	Sidereal Clock House	Pre 1905	3C
31	RNA Building	Drawings?	3C
34,35	Admin Building	C 1920	3C
38	North Mark RTC	1901	3C
42	North Collimator	1901	3C
44,75	Chronograph House & Wireless Receiving Room	1901	3C
45	South Collimator	1901	3C
50	South Mark TRC	1901	3C
57	House 8	C 1900	3C
79	House 10	1930	3C
86	Lyot Coronograph	1958	3C
88	Kine Theodolite	1957	3C
89	6" Telescope	1935	3C
95	Fallow's Grave	1831	2
96	Maclear's Grave	1861/1879	2
97	Moonwatch Pillars	1957-1958	3C
98	South Meridian Mark	1820s	2
99	Sundial	1958	3C

N

0 10 50 100m

FIGURE 13: BUILT FORM CHRONOLOGY

E. STATEMENT OF HERITAGE SIGNIFICANCE

The SAAO considerable historical, scientific, aesthetic, architectural and social significance, and graded by SAHRA as Grade I.

The section of the report should be read in conjunction with Figures 1, 2, 3, 14 and 15.

E.1 Broader Landscape

The site forms an integral part of TRUP which has been identified by HWC has a Grade II heritage resource in terms pre-colonial and early colonial history. TRUP has associations with the Khoenkhoen pastoralists as a camping and grazing ground during the dry summer months. It also has associations with early colonial expansion and defence, and Khoekhoen resistance during the mid-17th century.

TRUP has high local significance as a green environmental room embedded within the structure of the City. TRUP is one of the few areas embedded within the city where the original ecology is relatively well- preserved with a wetland area that supports a wide variety of bird and plant life.

Located at the centre of TRUP, the wooded setting of the SAAO provides a protective tree canopy and visual screening element from the Black River Parkway. A further characteristic is the dome typology of a number of structures and with views towards the McClean and Astrographic domes from the Black River Parkway. The strategic location of the site including its elevated topography at the confluence of the Liesbeek and Black Rivers retains partially visual-spatial linkages towards Signal Hill and Table Bay.

The institutional layering and environmental significance of TRUP represents a place of scientific inquiry, healing, quietude in the heart of the city.

E.2 SAAO Site Scale

The SAAO has very high historical significance as a scientific institute dating to the early 19th century and the first permanent observatory in the southern hemisphere. It is associated with a number of astronomical advances of international significance from the 1830s. It houses a range of objects and instruments associated with major advances in astronomy during the 19th and 20th centuries. It is also associated with a number of astronomers who were pre-eminent in the field during the 19th and 20th centuries. It has considerable aesthetic significance in terms of the dispersion of a number of architecturally significant buildings and a distinctive dome typology set within a wooded landscape, between the Liesbeek and the Black Rivers, and at the centre of TRUP. There are a number of buildings of architectural significance, notably the Main Building and McClean Observatory. Their landmark presence, axial relationship and forecourts structure the north-south central shaft of space. This is in contrast to the periphery of the site, where structures are more loosely arranged, particularly within the south-east quadrant where the proposed SAEON office is located. As a centre of excellence, the site continues to have associational significance as one of the country's most internationally acclaimed scientific institutions.

E.3 Individual Structures

A number of structures are situated within the south-east quadrant of the Observatory and adjacent to the proposed new building. Their heritage significance and grading are outlined below. Refer to Photos 8 – 19. Their location is indicated in Figures 13 and 14 with map reference numbers listed below. These structures are also indicated on the site development plan.

E.3.1 RNA Building (1898) (Map ref. 31)

A late 19th century rectangular hipped roof building with period detailing and of some historical value as the Royal Naval Association (RNA) Club, later meeting venue for the Cape Centre of the Astronomical Society of Southern Africa and more recently office of the International Astronomical Global Office of Astronomy for Development.

Suggested grading: IIIC

E.3.2 Kine Theodolite (1957) (Map ref. 88)

A mid-20th century structure used by the Royal Aircraft Establishment to track satellites using an Askania Kinetheodolite. It has some contemporary historical significance although its instrument has been removed. It contributes to the dome typology of the site and enduring role of the site as an astronomical observatory since 1828.

Suggested grading: IIIC

E.3.3 6 Inch Telescope (1935) (Map ref. 89)

A 1935 structure of historical significance in housing the 1882 telescope originally mounted in the Wind of Tower and with which the first observations of the very bright comet of 1882 were made and which led to the first star pictures, photographed in the background behind the comet.

Suggested grading: IIIC

E.3.4 Astrographic Telescope (1890) (Map ref.8)

Constructed in 1890 it was for the Cape zone of the worldwide Carte du Ciel project initiated in the late 19th century. It contained one of 12 telescopes erected worldwide to compile an astronomical atlas. The telescope was also used in the discovery of the presence of oxygen in stars. (Currently there is an unused 16-inch telescope on the mount).The structure contributes to the dome typology of the site and enduring role of the site as an astronomical observatory since 1828. There are visual linkages towards the dome from the Black River Parkway.

Suggested grading: IIIC

E.3.5 House 3 (Pre 1900) (Map ref. 13)

A late 19th century semi-detached double storey possessing intact period features and forming part of a group of 19th century dwellings located in the south-east quadrant of the site and associated with its role in providing on-site accommodation for Observatory staff. It possesses some landmark qualities in term of views from Black River Parkway.

Suggested grading: IIIB

E.3.6 House 4 (Pre 1900) (Map ref.14)

A late 19th century semi-detached double storey possessing intact period features and forming part of a group of 19th century dwellings located in the south-east quadrant of the site and associated with its role in providing on-site accommodation for Observatory staff. It possesses some landmark qualities in term of views from Black River Parkway.

Suggested grading: IIIB

E.3.7 House 5 (1888-1915) (Map ref.17)

An altered late 19th century villa of mostly contextual value forming part of a group of 19th century dwellings located within the south-east quadrant of the site and associated with and its role in providing on-site accommodation for Observatory staff.

Suggested grading: IIIC

E.3.8 House 7 (Pre 1863) (Map ref. 16)

A pre 1863 dwelling with intact period features and forming part of a group of 19th century dwellings located within the south-east quadrant of the site and associated with its role in providing on-site accommodation for Observatory staff.

Suggested grading: IIIB

E.3.9 Sidereal Clock House (1900) (Map ref. 30)

Of some significance in terms of having contained the standard observatory clocks and while the clocks have been removed the insulated clock chamber still remains.

Suggested grading: IIIC

E.3.10 Jacaranda House/House 6 (1863-1888) (Map ref. 15)

A late 19th century dwelling with intact period features and forming part of a group of 19th century dwelling located within the south-east quadrant of the site and associated with its role in providing on-site accommodation for Observatory staff.

Suggested grading: IIIB

E.3.11 Modern garage structure

Situated adjacent (west) of House 5, is a corrugated iron garage of some significance. The modern garage adjacent to the earlier corrugated iron garage has no heritage significance.

E.4 Landscape Features

Landscape features of significance include the woodland setting to the east of the site including a specimen Cypress tree.

E.5 Archaeological Sensitivity

In March 2017 three trenches were dug across the site to establish the position of existing services including electrical and fibre optic cabling. The trenches were approximately 1m long, 50cm wide and 50cm deep. The site was inspected by Sarah Winter and archaeologist Tim Hart and it was established that no archaeological material had been uncovered. Mr Hart has been involved in the TRUP Heritage Baseline Study including the detailed a detailed examination of the historical records pertaining to the use of the landscape and its associated water resources as a camping and grazing ground by Khoekhoen pastoralists during the dry summer months. He has advised that the digging of foundations for the proposed new building be subject to monitoring by a professional archaeologist. A monitoring plan should be submitted to HWC which makes provision for an archaeologist to be present on site to monitor the onset of excavation work and to advise on the need for follow up monitoring once the initial excavations have been undertaken (Tim Hart pers.com. March 2017).

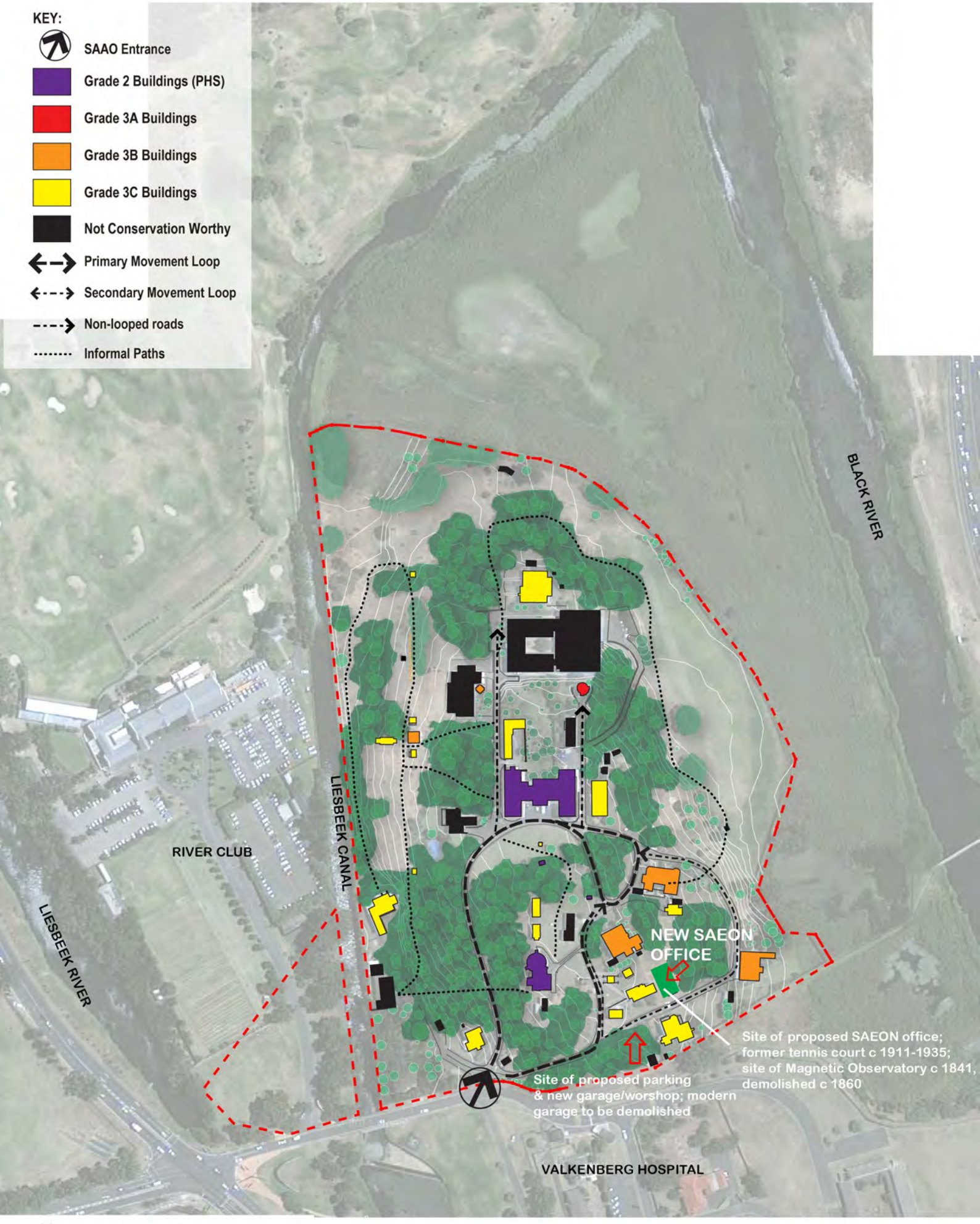


FIGURE 14: GRADING

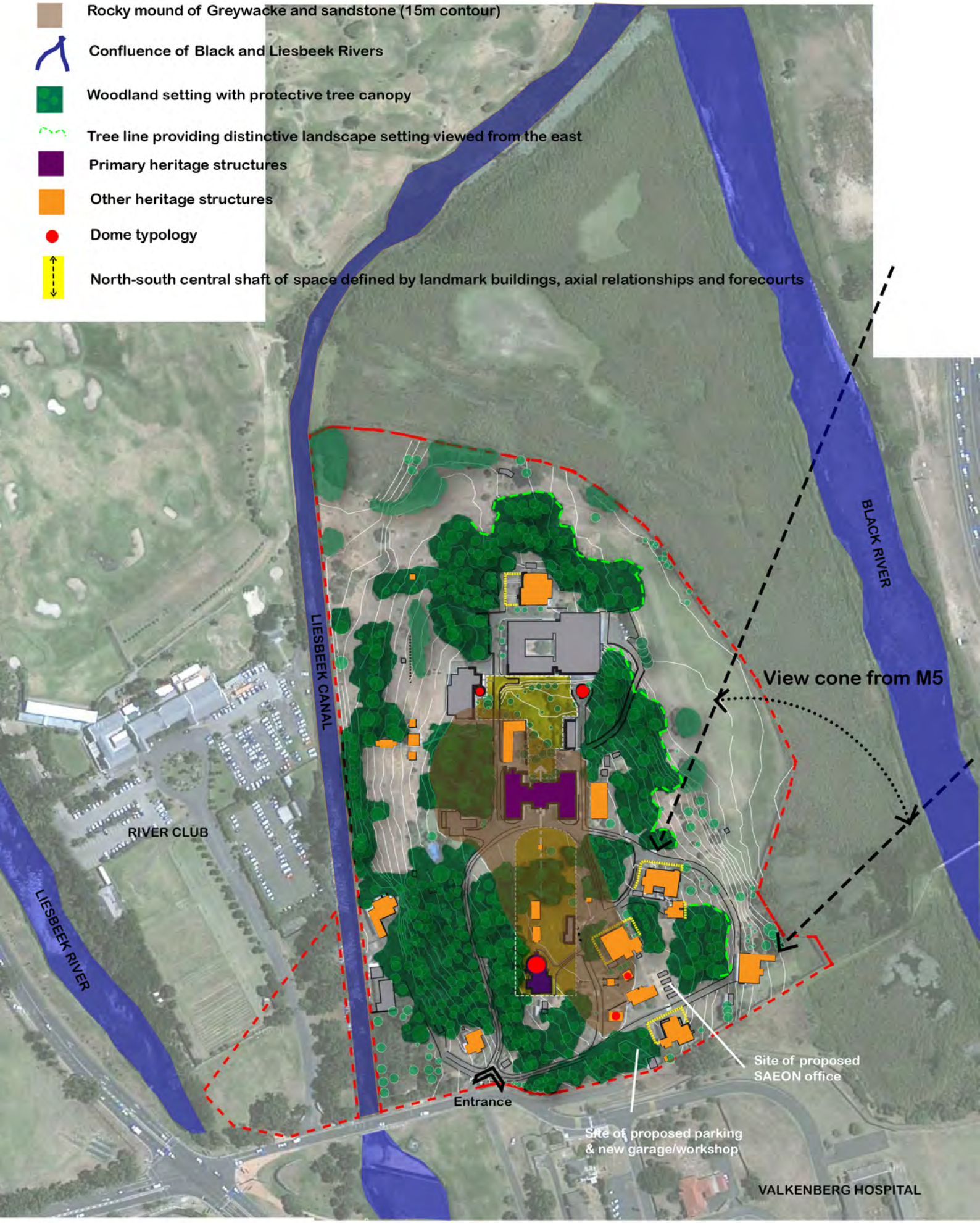


FIGURE 15: LANDSCAPE CHARACTER

F. HERITAGE INDICATORS

The principle of locating an office building for SAEON within the SAAO site is compatible with the enduring scientific, institutional and environmental role of the place over time. However, consideration needs to be given to the built environment and landscape qualities of the site at various scales with specific emphasis on the siting, orientation, height, scale, massing, roof form, architectural treatment and landscaping of the proposed development.

1. A new building should not erode the overall landscape framework of the site and its role within TRUP.
2. The siting and height of the proposed new building should not obstruct the line of sight westwards towards Signal Hill and Table Bay.
3. The siting and scale of the proposed building should not obstruct views of historical structures from the M5 in particular views of the domes of the Astrographic Telescope (8) and the McClean Observatory (3).
4. The siting of the proposed new building should be located outside the core heritage area comprising the Main Building (1) and McClean Observatory (3) and associated central shaft of space.
5. The siting and orientation of the proposed new building within the south-east sector of the site should follow the loose arrangement of buildings and general absence of formal geometries. The subtle angling of the building blocks in relation to the orientation of adjacent buildings will assist in creating a sense of fit in the landscape.
6. The siting of the proposed new building should provide the adjacent buildings and structures with sufficient breathing space particularly in relation to Jacaranda House (15), Kine Theodolite (88) and the RNA building (31).
7. The height of the proposed new building should not exceed the height of the double storey semi-detached houses (13 and 14) to the north of the proposed site. However, it should also respect the single storey height of immediate adjacent building and structures including RNA Building (31), Jacaranda House (15), Kine Theodolite (88), staff dwellings (16, 17) and Astrographic Telescope (8).
8. The fragmentation of the built form should occur to create a sense of fit in relation to modest scale and massing of surrounding buildings.
9. The roof form of the proposed new building should respect the simple predominantly pitched roofs of the surrounding buildings, i.e. RNA building (31), Jacaranda House (15) and other staff dwellings (16 and 17). However, this does not preclude the use of mono-pitched roofing elements within this particular environment.
10. The architectural character of the proposed new building should be in harmony with surrounding buildings, e.g. plastered and painted walls, modest scale and massing, corrugated iron pitched and hipped roofs, simple fenestration, stoep and veranda elements. It should also provide a positive interface to the circular road to the south and surrounding buildings and structures.
11. The proposed development should not involve the demolition or removal of conservation-worthy built elements and landscaping features.
12. The sloping woodland character to the east of the proposed new building contributes to the overall tree canopied setting of the Observatory site and should remain. The specimen Cypress tree should be protected.
13. Parking areas should be visually screened from the heritage core, planted with trees and organised into the smaller parking areas to avoid visually bland and exposed parking.
14. The surface treatment of parking areas should reflect the landscape character of the site, e.g. gravelled pavers (no asphalt) and road edge treatments should avoid barrier kerbs.
15. Outdoor lighting should be visually discrete to retain the landscape character of the site, e.g. low level bollard type lights and reflector to limit light spillage.
16. The digging of foundations for the proposed new building must be subject to monitoring by a professional archaeologist

G. ASSESSMENT OF HERITAGE IMPACTS

The following section of the report assesses the impact of the proposed development on heritage resources based on the heritage indicators identified in Section F.

1. The proposed use, discrete siting and limited footprint of the new building will not erode the overall landscape framework of the site and its enduring scientific, institutional and environmental role within TRUP.
2. The siting of the proposed building within the south-east quadrant and its limited height does not have any impact on the line of sight from the SAAO site westwards towards Signal Hill and Table Bay.
3. The siting and scale of the proposed building does obstruct views of historical structures from the M5 in particular views of the domes of the Astrographic Telescope (8) and the McClean Observatory (3).
4. The siting of the proposed building within the south-east quadrant of the site will not impact the visual-spatial qualities of the heritage core area comprising the Main Building (1) and McClean Observatory (3) and associated central shaft of space.
5. The siting and orientation of the proposed new building within the south-east sector of the site follows the loose arrangement of buildings and the subtle angling of the building blocks in relation to the orientation of adjacent buildings assist in creating a sense of fit in the landscape.
6. The siting of the proposed new building are sufficiently back from adjacent buildings and structures in order with sufficient breathing space particularly in relation to Jacaranda House (15), Kine Theodolite (88) and the RNA building (31).
7. The single storey height of the proposed new building respects the predominantly singe storey height of adjacent structures.
8. The fragmentation of the built form creates a sense of fit in relation to the modest scale and massing of surrounding structures.
9. The mono-pitched parapet roof form of the proposed new building respects the combination of roof forms across the site. It also allows for a more recessive built form, albeit distinctive from the surrounding domestic structures. It also provides a positive interface to the circular road to the south and surrounding buildings and structures.
10. The architectural treatment of the new building is played down to read as a modern building but at the same time picking up the scale, form, colour and texture of the surrounding structures.
11. The proposed development does not involve the demolition conservation-worthy built elements. The modern garage located adjacent to House 5 is not conservation-worthy.
12. The specimen Cypress tree will be retained. The siting of the new building will require the removal of four mature Eucalyptus trees. The impact of their removal can be mitigated by the planting of additional trees to strengthen the woodland character of the site to the east. In accordance with the landscape baseline report prepared by Liel van der Walt (2009), new trees on the SAAO site should be non-invasive exotic and indigenous trees and therefore not limited to indigenous trees. Preference should be given to tall, evergreen species characterising the existing planting pattern and woodland setting of the site.
13. The proposed parking areas are discretely located away from the heritage core, and are broken into two smaller areas to minimize impacts. The proposed new workshop/garage is very low key and discretely located.
14. No formal surface treatment of the parking areas is proposed, similar in character to the informal treatment of parking in other areas of the site. The new road is a very minor adjustment to the existing road network.
15. Due to budget constraints no additional hard landscaping interventions are proposed. Outdoor lighting is limited to the immediate footprint of the building.
16. Given the long history of use of the site and the potential for archaeological remains to be uncovered, the digging of foundations for the proposed new building should be subject to monitoring by a professional archaeologist. A monitoring plan must be submitted to HWC which makes provision for an archaeologist to be present on site to monitor the onset of excavation work and to advise on the need for follow up monitoring once the initial excavations have been undertaken.

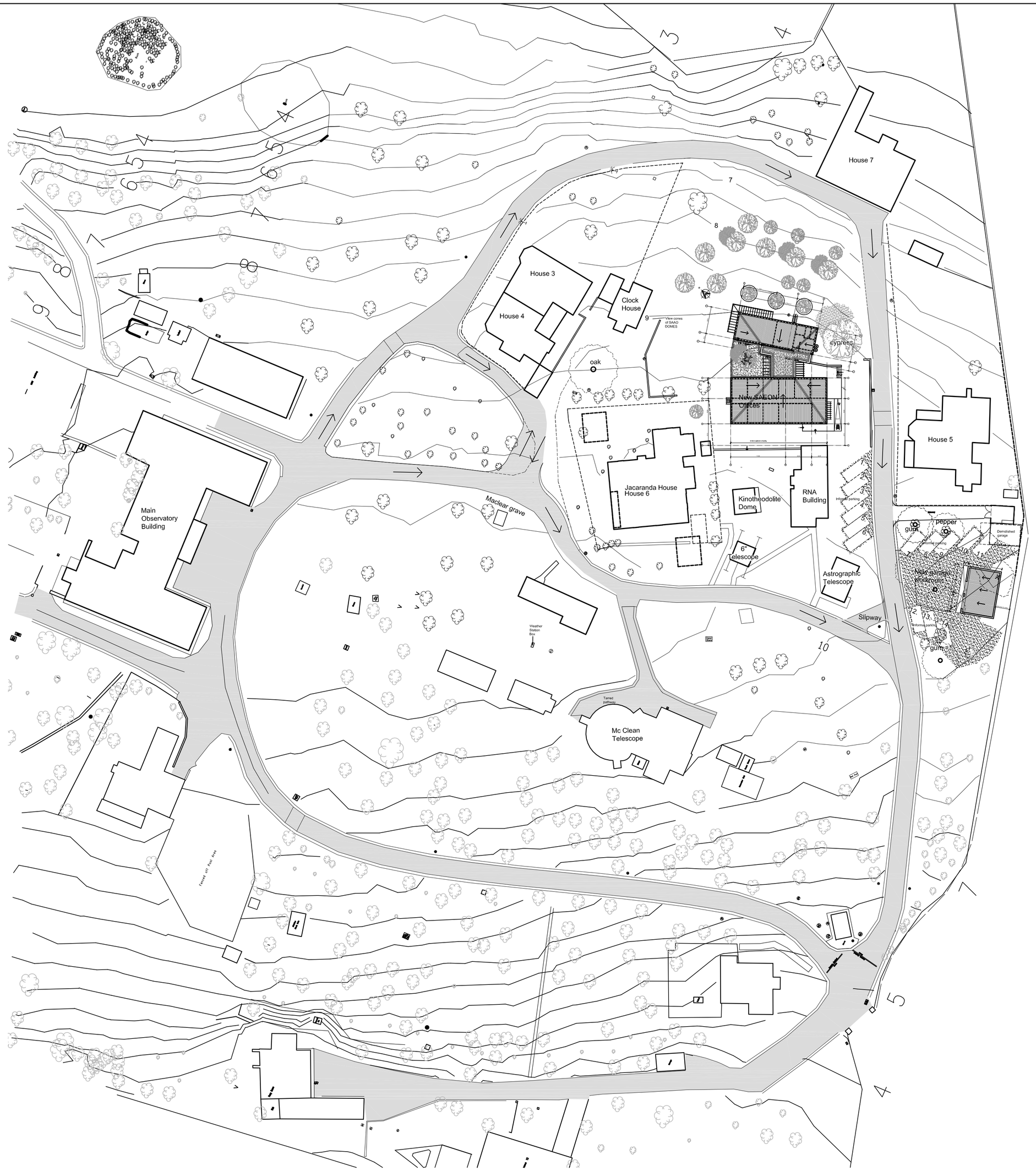
In conclusion, the proposed new SAEON office complies closely with the heritage indicators identified in Section F particularly in terms of its siting, orientation, height, scale, massing, roof form and architectural treatment. The building has been carefully sited and sensitively designed to minimise heritage impacts on the built environment and landscape qualities of the site. While the removal of four mature Eucalyptus trees will have some heritage impact, this can be mitigated by the planting of additional trees to strengthen the woodland character of the site to the east. A monitoring plan must be submitted to HWC which makes provision for an archaeologist to be present on site to monitor the onset of excavation work and to advise on the need for follow up monitoring once the initial excavations have been undertaken.

DEVELOPMENT PROPOSALS

DRAWINGS DATED 17TH JULY 2017 AND 11TH AUGUST 2017, NUMBERED

C-0001-Rev B, C-0002-Rev B, C-0003-Rev B, C-0004-Rev B,

C-0005-Rev B and C-0006-Rev B



OVERALL SITE PLAN
Scale 1:500

REVISIONS

R.	DATE	DESCRIPTION

NOTES

Client:

Architect:

Rennie *Scurr* Adendorff ARCHITECTS

15 New Church Street Cape Town 8000
P O Box 16390 Vlaeberg 8018
Tel +27 (0) 21 423 0328
Fax +27 (0) 21 424 9396
Email : cape@archrsa.com
Website: www.archrsa.com

CC CK 1990/067711/23

Client:
SAAO

Project:
SAAO NEW OFFICES

Drawing type:
COUNCIL SUBMISSION DRAWING

Project Number	Drawing Number	Revision
01544	C-0001	B

Date:	Scale	
2017-08-11	1:500@A1	
Designed: MS	Drawn: AON	Checked: __

Z:\SAAO\01544 SAAO\Drawings and Specifications\03 (C) Council Submission\1000 Plans\1000 Place plans.

SITE PLAN
Scale 1:200

REVISIONS

R.	DATE	DESCRIPTION

NOTES

Client:

Architect:

Rennie Scurr Adendorff
ARCHITECTS
15 New Church Street Cape Town 8000
P O Box 16390 Vlaeberg 8018
Tel +27 (0) 21 423 0328
Fax +27 (0) 21 424 9396
Email : cape@archrsa.com
Website: www.archrsa.com
CC CK 1990/06711/23

Client:
SAAO

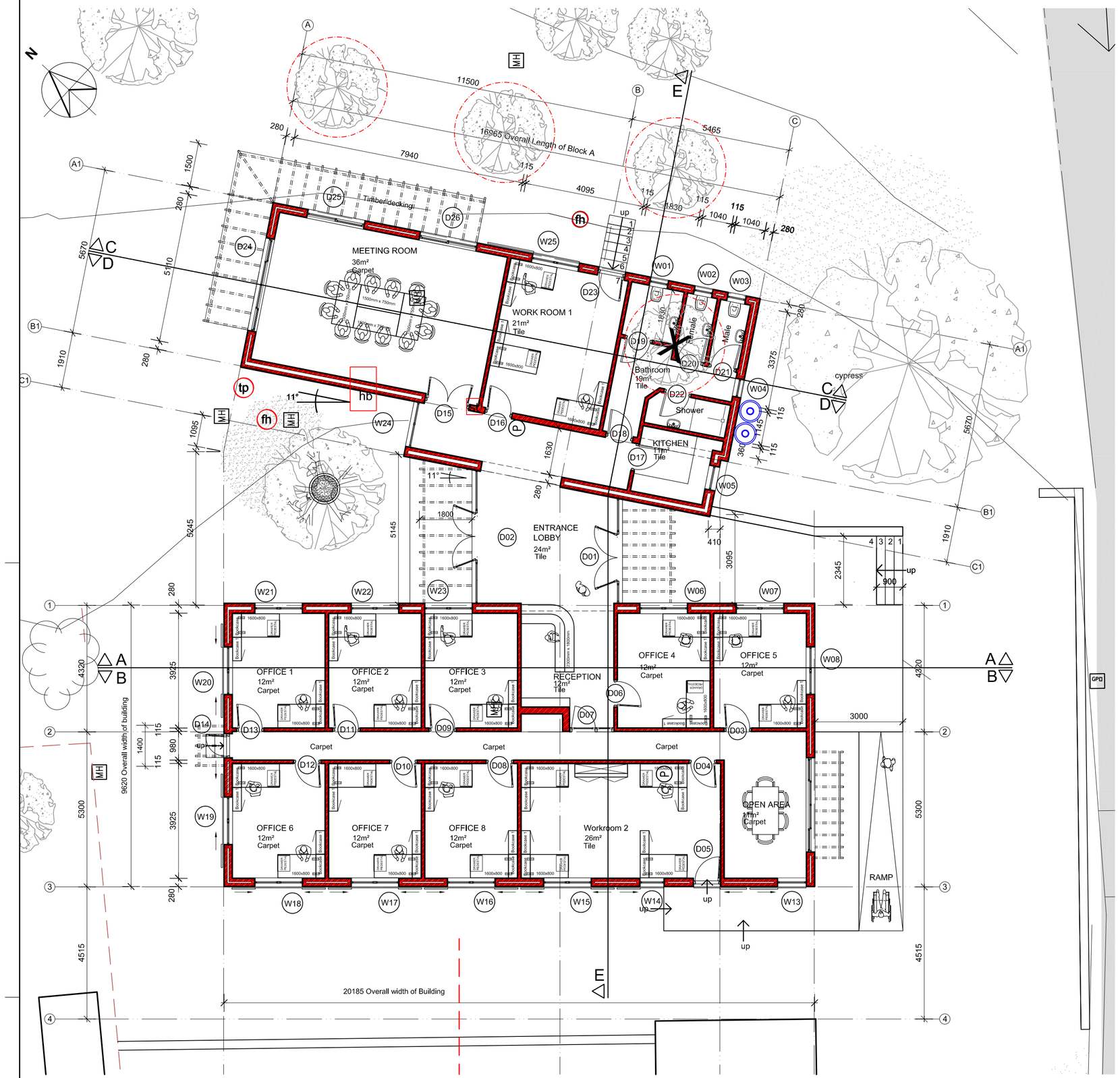
Project:
SAAO NEW OFFICES

Drawing type:
COUNCIL SUBMISSION DRAWING

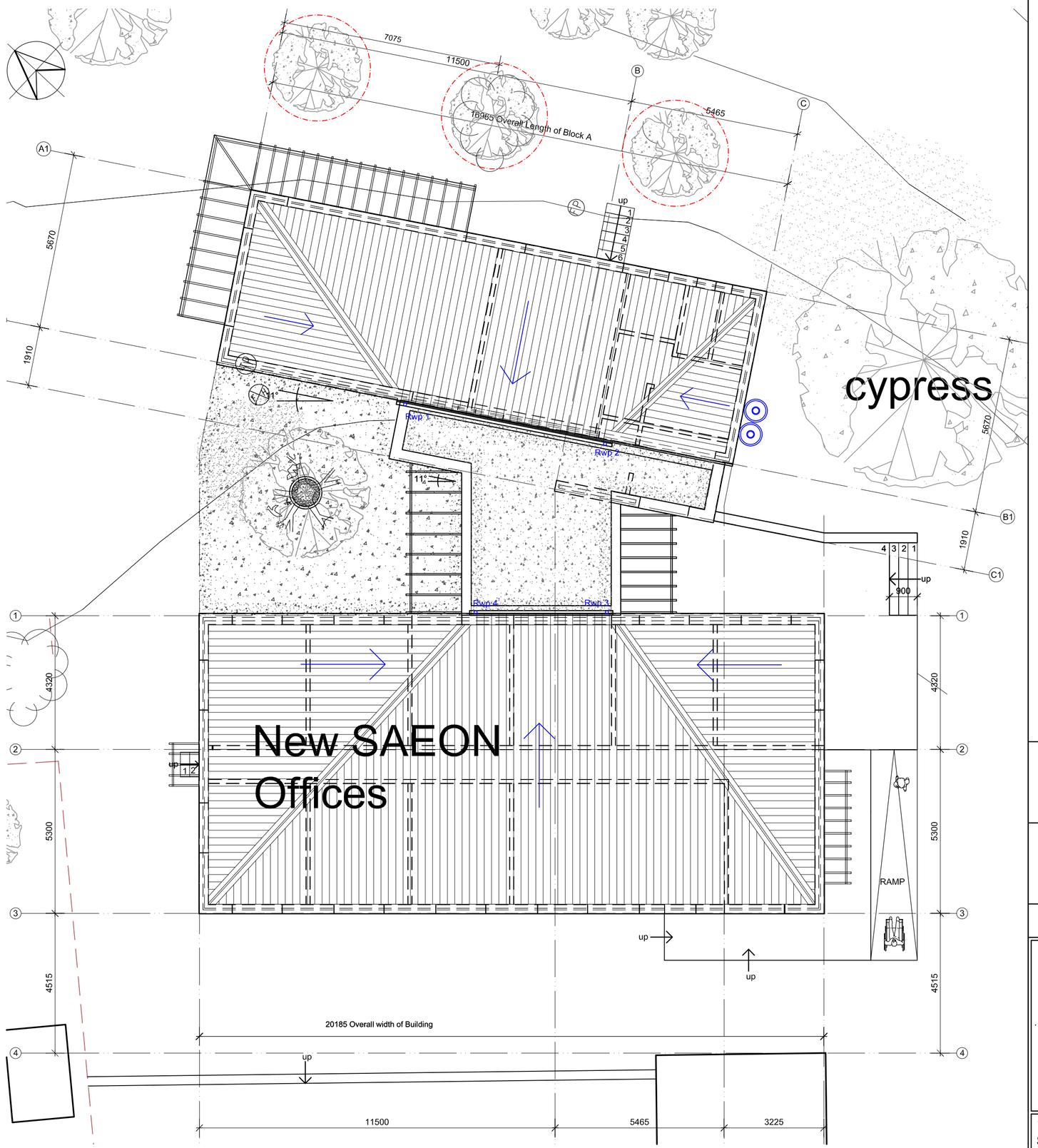
Project Number	Drawing Number	Revision
01544	C-0002	B

Date:	Scale	
2017-08-11	1:200@A1	
Designed: MS	Drawn: AON	Checked: _

Z:\SAAO\01544 SAAO\Drawings and Specifications\01 (C) Council Submission\1000 Plans\1000 Floor plans



GROUND FLOOR PLAN
Scale 1:100



ROOF PLAN
Scale 1:100

REVISIONS

R.	DATE	DESCRIPTION

NOTES

Client:

Architect:

Rennie Scurr Adendorff
ARCHITECTS
15 New Church Street Cape Town 8000
P O Box 16390 Vlaeberg 8018
Tel +27 (0) 21 423 0328
Fax +27 (0) 21 424 9396
Email : cape@archrsa.com
Website: www.archrsa.com
CC CK 1990/06711/23

Client:
SAAO

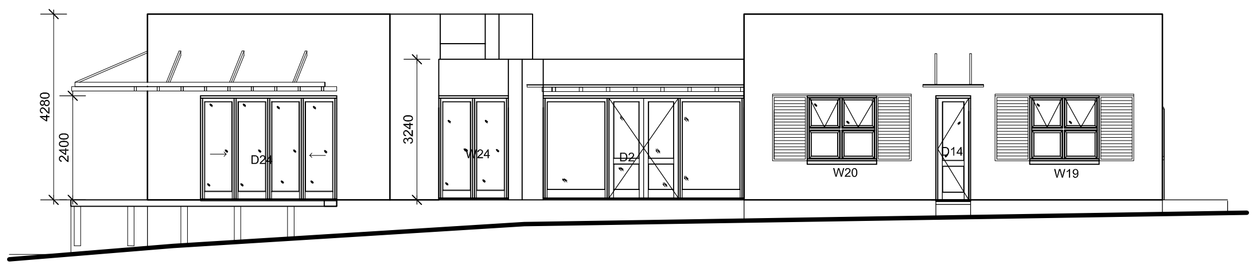
Project:
SAAO NEW OFFICES

Drawing type:
COUNCIL SUBMISSION DRAWING

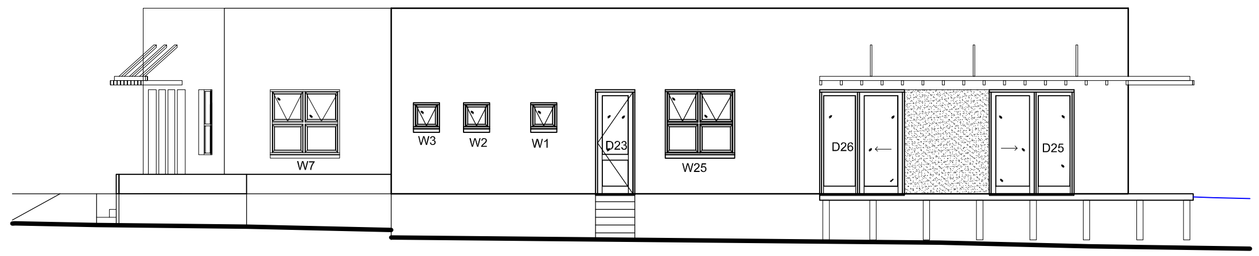
Project Number	Drawing Number	Revision
01544	C-0003	B

Date:	Scale	
2017-07-21	1:100@A1	
Designed: MS	Drawn: AON	Checked: _

Z:\SAAO\01544 SAAO\Drawings and Specifications\03 (C) Council Submission\1000 Plans\1000 Floor plans

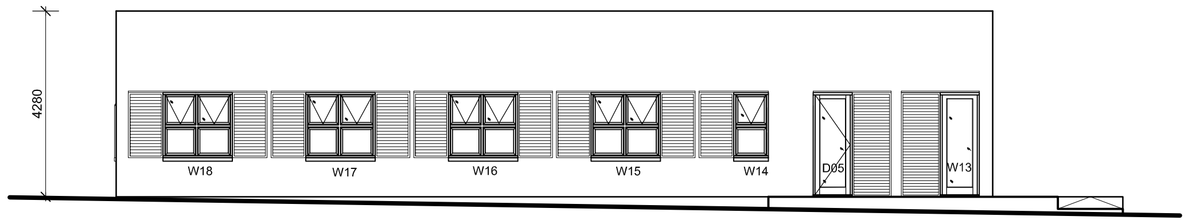


North Elevation
Scale 1:100

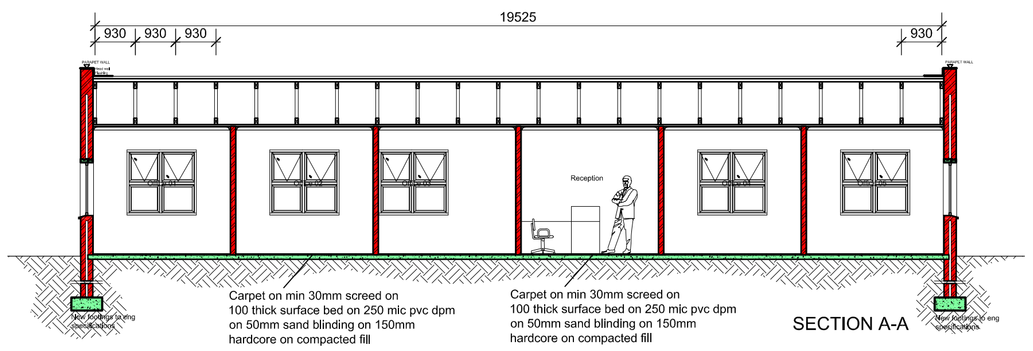


East Elevation
Scale 1:100

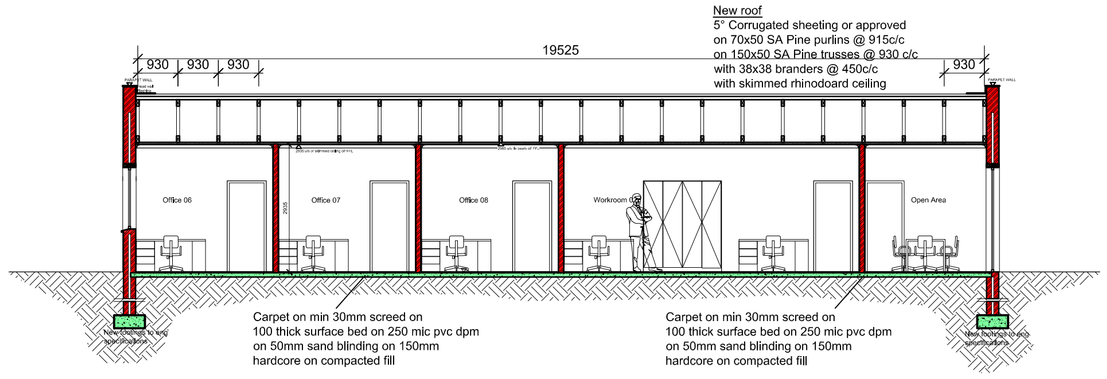
South Elevation
Scale 1:100



West Elevation
Scale 1:100



Section A-A
Scale 1:100



Section B-B
Scale 1:100

REVISIONS

R.	DATE	DESCRIPTION

NOTES

Client:

Architect:

Rennie Scurr Adendorff

15 New Church Street Cape Town 8000
P O Box 16390 Vlaeberg 8018
Tel +27 (0) 21 423 0328
Fax +27 (0) 21 424 9396
Email : cape@archrsa.com
Website: www.archrsa.com

CC CK 1990/067711/23

ARCHITECTS

Client:
SAAO

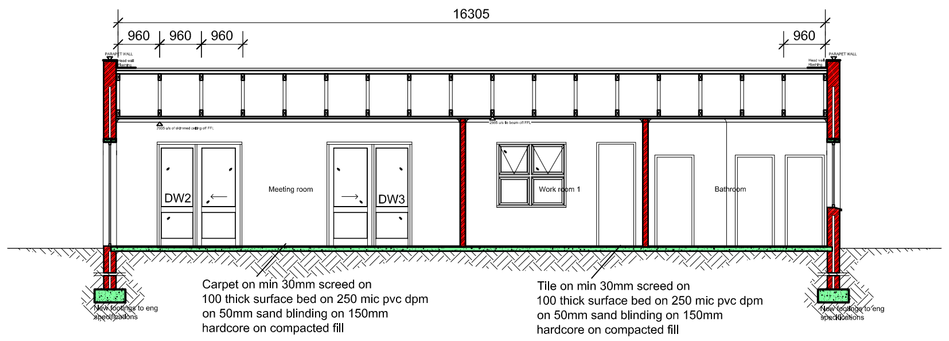
Project:
SAAO NEW OFFICES

Drawing type:
COUNCIL SUBMISSION DRAWING

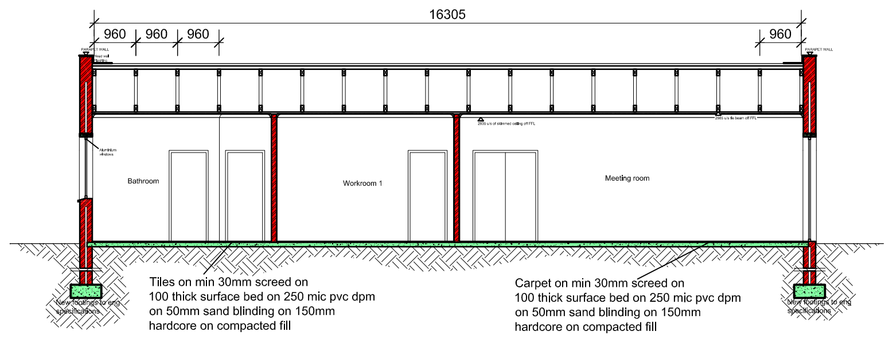
Project Number	Drawing Number	Revision
01544	C-0004	B

Date:	Scale	
2017-07-21	1:100@A1	
Designed: MS	Drawn: AON	Checked: _

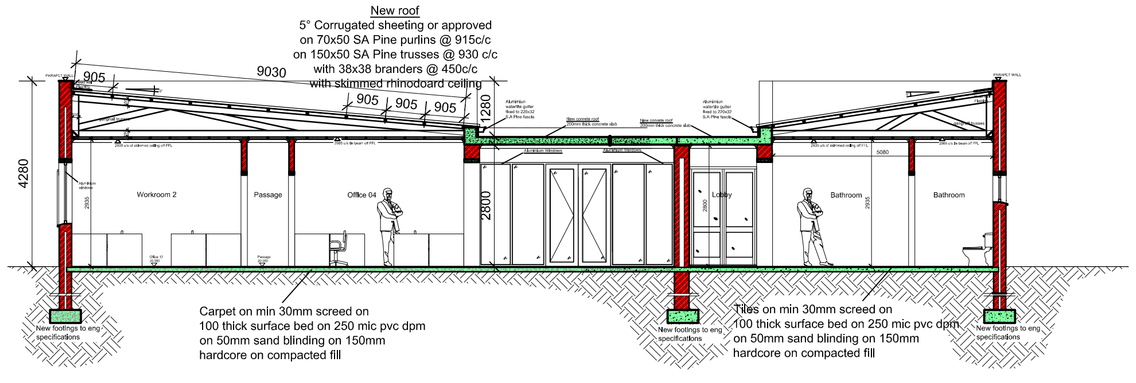
Z:\SAAO\01544 SAAO\Drawings and Specifications\03 (C) Council Submission\100 Plans\100 Floor plans



Section C-C
Scale 1:100



Section D-D
Scale 1:100



Section E-E
Scale 1:100

REVISIONS

R.	DATE	DESCRIPTION

NOTES

Client:

Architect:

Rennie Scurr Adendorff

15 New Church Street Cape Town 8000
P O Box 16390 Vlaeberg 8018
Tel +27 (0) 21 423 0328
Fax +27 (0) 21 424 9396
Email : cape@archrsa.com
Website: www.archrsa.com
CC CK 1990/06711/23

ARCHITECTS

Client:
SAAO

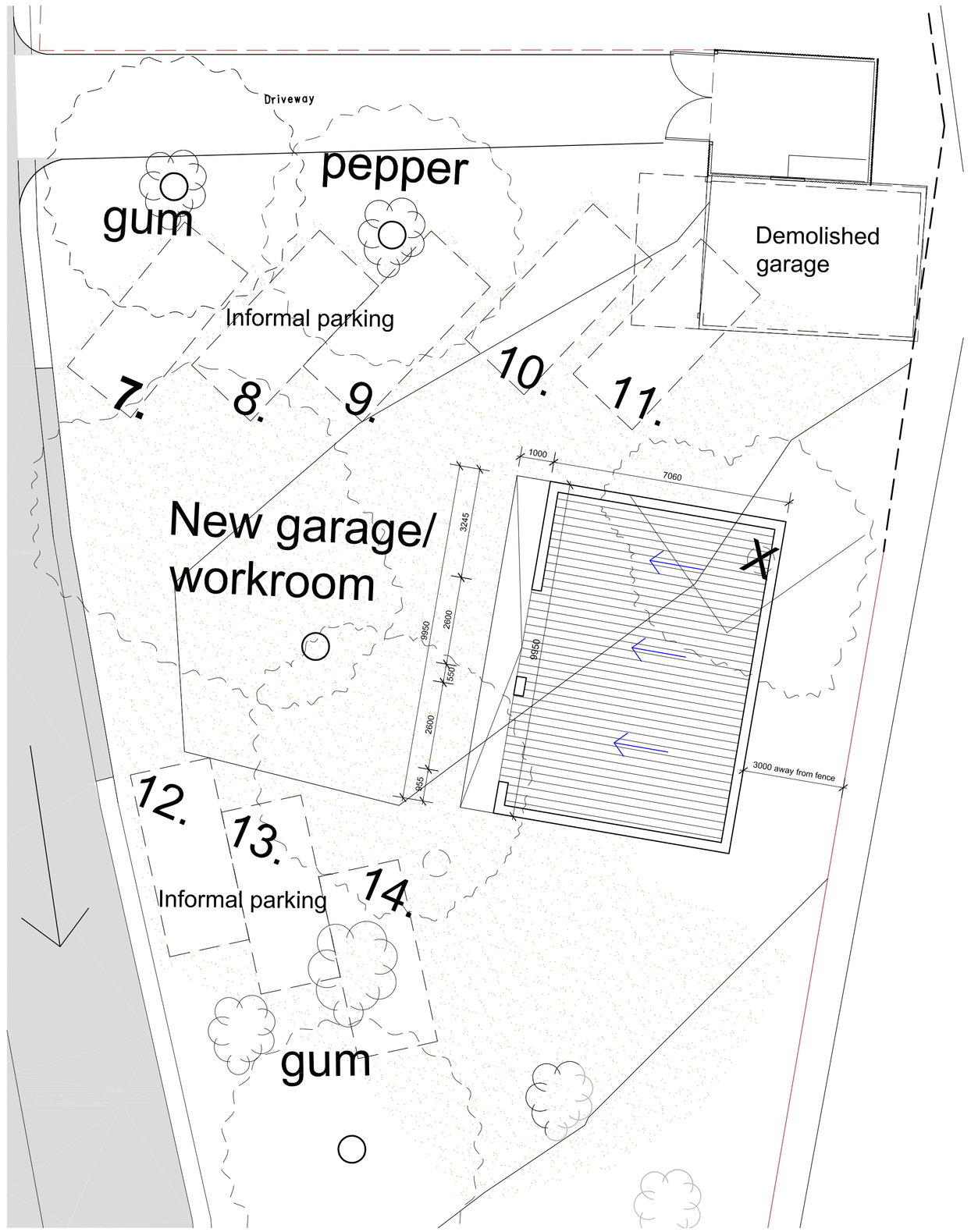
Project:
SAAO NEW OFFICES

Drawing type:
COUNCIL SUBMISSION DRAWING

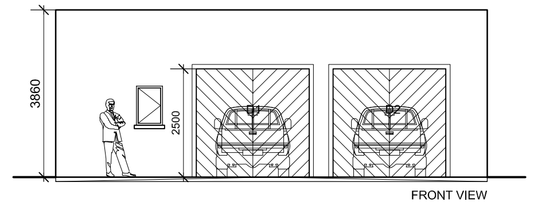
Project Number	Drawing Number	Revision
01544	C-0005	B

Date:	Scale	
2017-07-21	1:100@A1	
Designed: MS	Drawn: AON	Checked: _

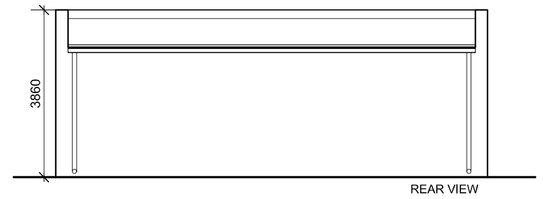
Z:\SAAO\01544 SAAO\Drawings and Specifications\03 (C) Council Submission\1000 Plans\1000 Floor plans



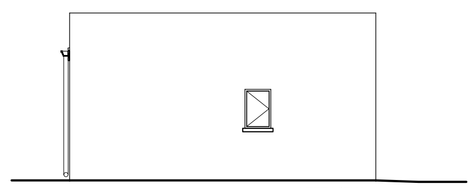
GARAGE ROOF PLAN
Scale 1:100



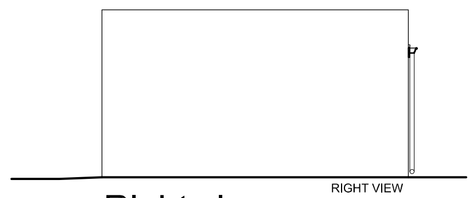
Front view
Scale 1:100



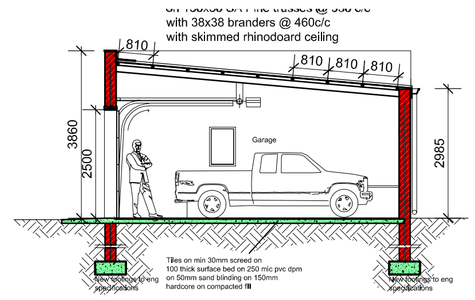
Rear view
Scale 1:100



Left view
Scale 1:100



Right view
Scale 1:100



Garage Section
Scale 1:100

REVISIONS

R.	DATE	DESCRIPTION

NOTES

Client:

Architect:

Rennie Scurr Adendorff
ARCHITECTS
15 New Church Street Cape Town 8000
P O Box 16390 Vlaeberg 8018
Tel +27 (0) 21 423 0328
Fax +27 (0) 21 424 9396
Email : cape@archrsa.com
Website: www.archrsa.com
CC CK 1990/067711/23

Client:
SAAO

Project:
SAAO NEW OFFICES

Drawing type:
COUNCIL SUBMISSION DRAWING

Project Number	Drawing Number	Revision
01544	C-0006	B

Date:	Scale	
2017-07-21	1:100@A1	
Designed: MS	Drawn: AON	Checked: _

Z:\SAAO\01544 SAAO\Drawings and Specifications\03 (C) Council Submission\1000 Plans\1000 Floor plans

PHOTOMONTAGES

VIEW FROM EAST

RENNIE|SCURR|ADENDORFF
ARCHITECTURE

VIEW OF NEW BUILDING FROM EAST

RENNIE | SCURR | ADENDORFF
ARCHITECTURE

VIEW OF COURTYARD SEEN FROM NORTH

RENNIE|SCURR|ADENDORFF
ARCHITECTURE

ENTRANCE AREA AND EXISTING ROADWAY

RENNIE | SCURR | ADENDORFF
ARCHITECTURE

COURTYARD VIEW

RENNIE|SCURRI|ADENDORFF
ARCHITECTURE

VIEW OF BUILDING IN CONTEXT

RENNIE|SCURR|ADENDORFF
ARCHITECTURE

VIEW OF COURTYARD SEEN FROM NORTH

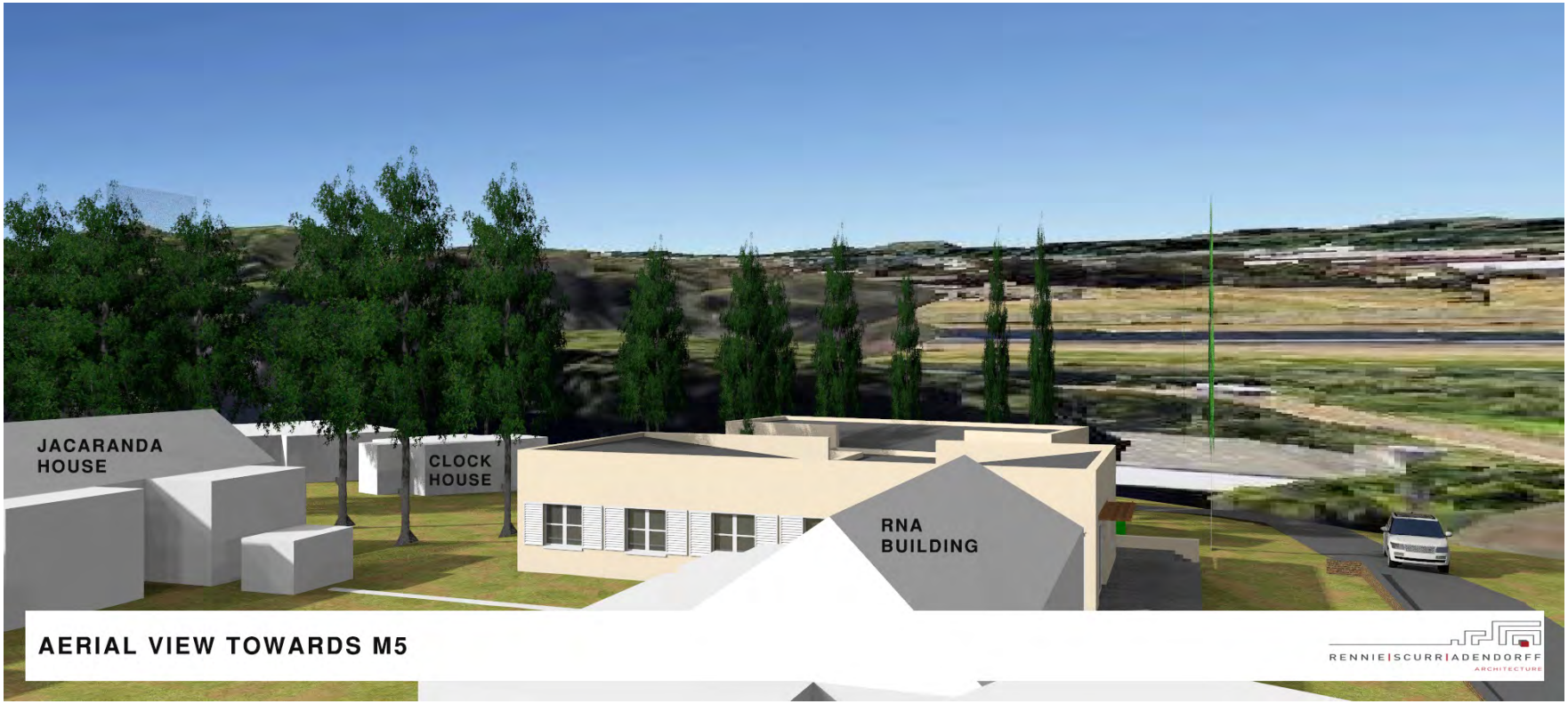
RENNIE | SCURR | ADENDORFF
ARCHITECTURE

VIEW OF OFFICE WING FROM WEST CORNER

RENNIE|SCURR|ADENDORFF
ARCHITECTURE

ENTRANCE ELEVATION

RENNIE | SCURRI | ADENDORFF
ARCHITECTURE



AERIAL VIEW TOWARDS M5

RENNIE | SCURR | ADENDORFF
ARCHITECTURE

VIEW OF NEW BUILDING FROM SOUTH EAST

RENNIE | SCURR | ADENDORFF
ARCHITECTURE


Mc Clean
Telescope
Location of the
proposed building
Ridge line indication

H. OUTCOME OF CONSULTATION PROCESS

A copy of the draft HIA report has been submitted to the following authorities and conservation bodies for comment:

- City of Cape Town Heritage Section of the Environmental Management Branch
- SAHRA
- Observatory Civic Association
- Two Rivers Urban Park Association

I. RECOMMENDATIONS

It is recommended that HWC endorse this HIA report as having satisfied the requirements of Section 38 (3) of the NHRA and HWC's requirements for a visual impact assessment and a built environment and landscape assessment. It is recommended that HWC make a decision in terms of Section 38 (4) of the NHRA to approve the proposed development as indicated in drawings numbered C-0001-Rev B, C-0002-Rev B, C-0003-Rev B, C-0004-RevB, C-0005-RevB and C-0006-RevB, dated 17th July 2017. It is recommended that approval be subject to the following conditions:

- The planting of replacement trees to mitigate the impact of the removal of four Eucalyptus trees and to strengthen woodland setting to the east of the site. New trees on the SAAO site should be non-invasive exotic and indigenous trees and therefore not limited to indigenous trees. Preference should be given to tall, evergreen species characterising the existing planting pattern and woodland setting of the site.
- A submission of an archaeological monitoring plan to HWC which makes provision for an archaeologist to be present on site to monitor the onset of excavation work and to advise on the need for follow up monitoring once the initial excavations have been undertaken.
- The submission of a close out report to HWC prepared by the principal architect and submitted within 30 days of practical completion of the project.

REFERENCES

Attwell, Melanie & Associates (2017). Supplementary Report TRUP Baseline Study submitted in terms of S 38(8). Prepared for the Provincial Government of the Western Cape (in preparation)

Baumann, Nicolas and Winter, Sarah (2011). South African Astronomical Observatory Heritage Survey. Prepared for the SAAO National Research Foundation

Fransen, Hans (2004). The Old Buildings of the Cape. Jonathan Ball Publishers, Johannesburg and Cape Town

Glass, Ian (2010). The Royal Observatory – A Cape Town Treasure. Article for the Cape Times, 16th April 2011

Glass, I.S (2015). The Royal Observatory at the Cape of Good Hope. History and Heritage. Mons Mensa, Cape Town (self-published)

E.d. Laing, J.D. (1970). The Royal Observatory at the Cape of Good Hope 1820-1970 - A Sesquicentennial offering Published by The Royal Observatory, Cape of Good Hope

SAHRA, Sonja Warnich-Stemmet (2008). Report on the South African Astronomy Observatory. Head Office File number 9/2/018/245; 3/K/Kaa/96. Erf 26432, Observatory, Cape Town T21739/1989. May 2008

SAHRA, Western Cape Office (2008). Nomination for Grade I Status to the SAHRA Council of the Royal Observatory, Observatory, Cape Town, Western Cape Province. 8 July 2008

Van der Walt, Liesl (2009). (In Consultation with Strong, Nicole) Observatory Baseline Informants Study. Natural and Urban Systems Analysis (Draft Report)

Warner, Brian (1979). Astronomers at the Royal Observatory Cape of Good Hope. A history with emphasis on the nineteenth century. Published for the University of Cape Town by A.A Balkema, Cape Town and Rotterman

Warner, Brian (undated). Royal Observatory, 1820-1831. The Founding of a Colonial Observatory Incorporating a biography of Fearon Fallows Kluwer Academic Publishers, Dordrecht/Boston/London

Warner, Brian (1988). The Remnants of the Cape's Astronomical Heritage. Department of Astronomy, University of Cape Town. Public Address Presented at SAMA Conference: Stellenbosch, May 1988. Published by SAMAB, 18 (3): pages 103-105

Worden, Nigel, Van Heyningen, E. and Bickford-Smith, Vivien (1998). Cape Town: The Making of a City. Uitgeverij Verloren.

Website

www.westerncape.gov.za/speech/department-cultural-affairs-and-sport-budget-speech-2015

Personal Communication

Hart, Tim (March 2017). Site inspection and email communication regarding the archaeological sensitivity of the site and advice regarding the need for on-site monitoring of excavation works

Lavin, Jenna (June 2017). Email communication regarding status of the Khoisan Legacy Project and the identification of TRUP as part of the Khoi and San Legacy Route

ANNEXURE A

Our Ref: HM/ CAPE TOWN METROPOLITAN/ OBSERVATORY/ ERF 26423
Case No.: 160802003WD0803E
Enquiries: Waseefa Dhansay
E-mail: waseefa.dhansay@westerncape.gov.za
Tel 021 483 9533
Date: 12 August 2016

National Research Foundation
1 Observatory Road
Observatory
7925

ILifa leMveli leNtshona
Erfenis Wes-Kaa
Heritage Western C

RESPONSE TO NOTIFICATION OF INTENT TO DEVELOP: HIA REQUIRED
In terms of Section 38(4) of the National Heritage Resources Act (Act 25 of 1999) and the Western Cap
Provincial Gazette 6061, Notice 298 of 2003

NOTIFICATION OF INTENT TO DEVELOP: THE PROPOSED DEVELOPMENT OF NEW OFFICES FOR THE SOUTH AFRICAN ENVIRONMENTAL OBSERVATION NETWORK ON ERF 26423, OBSERVATORY, SUBMITTED IN TERMS OF SECTION 38(4) OF THE NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)

CASE NUMBER: **160802003WD0803E**

The matter above has reference.

Heritage Western Cape is in receipt of your application for the above matter received on 05 August 2016. This matter was discussed at the Heritage Operational Management Services (HOMS) meeting held on 12 August 2016.

You are hereby notified that, since there is reason to believe that proposed development of new offices for the South African Environmental Observation Network on Erf 26423, Observatory, will impact on heritage resources, HWC requires that a Heritage Impact Assessment (HIA) that satisfies the provisions of section 38(3) of the NHRA be submitted.

The following specialist studies are required:

- Visual Impact Assessment
- Built Environment and Landscape Assessment, focusing on detailed design development and architectural treatment of the proposed SAEON office building parking and access arrangement
- The comments of relevant registered conservation bodies and the relevant Municipality must be requested and included in the HIA where provided. Proof of these requests must be supplied.

HWC reserves the right to request additional information as required.

Should you have any further queries, please contact the official above and quote the case number.

Yours faithfully

.....
Mr. Mxolisi Dlamuka
Chief Executive Officer, Heritage Western Cape