



an agency of the
Department of Arts and Culture

COMMITTEE MEETING

DATES:

GDRC: 30/08/18

EXCO: 19/09/18

HRM COM: 05/10/18

COUNCIL: 26/10/18

DECLARATION SUBMISSION

SUBMITTED BY: Built Environment Unit

DATE: 22 August 2018

FILE REF: 9/2/018/245

SAHRIS SITE CATEGORY Place/ Structures

Significance Category (THEMES): Scientific – Technical Achievements and Research

ENQUIRIES: Mr Ben Mwasinga / Ms. Heidi Weldon

ITEM: Proposal for National Heritage Site Declaration: The South African Astronomical Observatory, Observatory, Cape Town, Western Cape

A1. BACKGROUND

- A1.1. The South African Astronomical Observatory in Cape Town has played a highly significant scientific role over time as the oldest permanent observatory in the Southern Hemisphere. The site offers an overview of the history of astronomy both locally and internationally. It is a living site with more than 150 years history while still retaining its prominence in the international astronomical community.
- A1.2. Contributions to astronomy from the site range from accurate measurements of earth's the distance to the star, Alpha Centuri, first catalogues of the principle southern stars, first photographic survey of the sky, accurate measurement of the distance to the sun (a value that became the benchmark to measure all other cosmic distances and represented a paradigm shift in astronomy), development of spectroscopy, remeasurement and extension of Lacaille's Arc of Meridian, establishment of the true shape of the Earth in the southern hemisphere and first accurate geodetic surveys of southern Africa.

- A1.3. Architecturally, there are several buildings of historical value and not only reflect the changing architectural styles over the nineteenth century, but also have considerable scientific value due their contributions to the field of astronomy. The Main Building (a Georgian building) - designed by the British naval architect, John Rennie, and completed in 1828, the heliograph - the oldest dome on the site and runs on cannon balls, and the McLean Telescope Building - designed by Herbert Baker are closely association with David Gill and leading astronomer of the time.
- A1.4. The cultural landscape qualities of the area, adjacent and, specifically, inclusive of the SAAO site, have great value as historical, social, aesthetic, architectural, scientific and environmental resources. It has associational links with past events, persons, uses, community memory, identity and oral history. The significance of the site is at the overall landscape, precinct and object scale.
- A1.5. The Two Rivers landscape is a complex composite of natural, cultivated and built landscape elements. It is indeed a cultural landscape expressing both artistic and innovative qualities in terms of its natural setting, architecture and patterns of planting. It possesses several inter-related precincts that clearly serve to demonstrate its various roles and uses as a place for indigenous hunter-gatherers, grazing grounds for herders, colonial farms, a scientific research station, a reformatory and hospitals.
- A1.6. The groups of buildings, patterns of planting and routes have intrinsic social, aesthetic and scientific significance and contextual significance in regard to developing an understanding of the two river's confluence inherited landscape qualities, its history and associated memory.
- A1.7. The key buildings on the site are the south-facing Main Building, a neo-Classical building of Georgian and Greek reference, and the Observatory building which houses the McClean telescope. The Main Building is an accurate reconstruction of the façade of a Greek temple. The building is symmetrical with two double storied wings extending to the front with two large windows with detailed surrounds within which it is set. Some of the windows on the wings facing onto the courtyard at the rear were false arising from an incorrect assumption by the architect that a window tax was applicable. The central room initially had a centralised lantern placed there in 1824. To the rear of the main elevation, a square tower now rises upward, currently housing some of the services of the building. Internally the building has retained some of its original fireplaces, teak joinery and two staircases.
- A1.8. The observatory building housing the McClean Telescope was donated Frank McClean, who visited the Royal Observatory in 1890. The uniqueness associated with the telescope is its age, its associated history with colonial rule at the Cape and the scientific contributions that it has made to South African astronomical research. Herbert Baker is the designer of this building. The telescope, lift and dome turning mechanisms remain in original and in relatively good condition. The McClean telescope is still in use by the public when visiting the observatory.
- A1.9. The site was graded as a Grade 1 site in 2013 and formal letters of notification were sent on 17 June 2014. However, due to concerns from SAAO regarding boundaries and the implications the declaration would have as a working site, the declaration process was not completed.

A1.10 Following a meeting with the National Research Foundation, SAAO and SAHRA, the NRF's wish to have the site declared was expressed and the process picked up again.

A2. EXECUTIVE SUMMARY

- A2.1. The South African Astronomical Observatory (SAAO) was formed in the 1970's with the merging of the Royal Observatory, Cape Town (date of origin 1825-28), the Republic Observatory, Johannesburg (date of origin 1903) and the Radcliffe Observatory in Pretoria. The Council for Scientific and Industrial Research (CSIR) of South Africa and the Science and Research Council (SERC) of the United Kingdom in combination formed the SAAO.
- A2.2. The current status places it as a facility of the National Research Foundation under the Department of Science and Technology. Its prime function is to conduct fundamental research in Astronomy and Astrophysics by providing an excellent facility and by promoting Astronomy and Astrophysics in Southern Africa. A number of historic telescopes are found on site housed in a number of domes with the museum concentrating on historic scientific instruments.
- A2.3. Part of the heritage development of the site is the acknowledgement of the national significance of the SAAO, therefore the site was graded as a Grade 1 site in September 2013.
- A2.4. All the administrative processes for declaration have been completed with official notice going out on 11 July, 2018. The public notification period will be concluded on September 11 2018.

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1. PURPOSE OF THE SUBMISSION

- 1.1. The purpose of this submission is to request the approval from the Grading and Declaration Review Committee, to recommend to Council that the South African Astronomical Observatory in Cape Town be declared a National Heritage Site.

2. LANDOWNER'S DETAILS AND ATTITUDE TOWARDS DECLARATION

- 2.1. *The National Research Foundation*

Dr. Molapo Qhobela PhD
Chief Executive Officer
National Research Foundation
PO Box 2600
Pretoria
South Africa

- 2.2. The NRF has given its explicit support for the declaration and approached SAHRA to offer any form of assistance in the process.

3. PUBLIC PARTICIPATION AND NOTIFICATION

- 3.1. The interested and affected parties are primarily from the astronomical and scientific community. However, stakeholders residing in Observatory, Cape Town, were also identified and notified.

Land owner:

The National Research Foundation & South African Astronomical Observatory

Interested and Affected Parties:

Western Cape Department of Cultural Affairs and Sports
National Department of Arts and Culture
National Department of Science and Technology
Department of Rural Development and Land Reform
National Geo-Spatial Information
University of the Western Cape
University of Cape Town

Valkenberg Psychiatric Hospital
Cape Town Science Centre
Cape Town Heritage Trust
Observatory Civic Association
Friends of the Liesbeek
Academy of Science South Africa
Iziko Museum
Mr P Taruvinga

- 3.2 Notification letters were sent out to all interested and affected parties including the land owner on 11 July 2018.
- 3.3 SAHRA has not received any objections to the declaration from the notified parties and has received support from the land owner as well as the tenant (SAAO), expressed at the meeting held previously.
- 3.4 A phone call discussion took place with the SAAO on 23rd August 2018, where it was noted that a formal submission to SAHRA in response to the letter of notification was being prepared.
- 3.5 Concerns regarding whether the entire erf or the historical buildings should be declared. It was discussed that should the Erf be declared, the building could be rated according to their heritage values and managed as such.
- 3.6 Other concerns such as the validity of the HWC permits issued for alterations and renovations on the site and the impacts on the continued workings of the site.

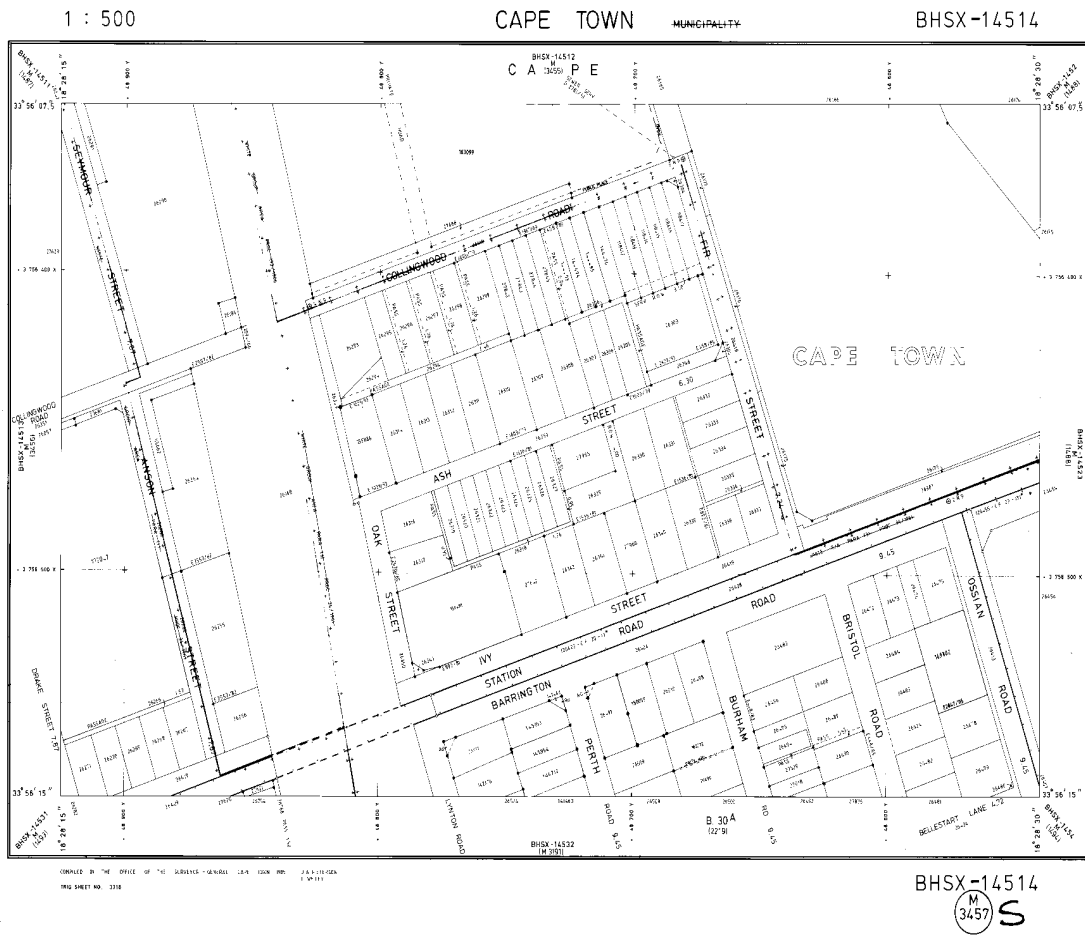
4. OFFICIAL DESCRIPTION OF THE RESOURCE

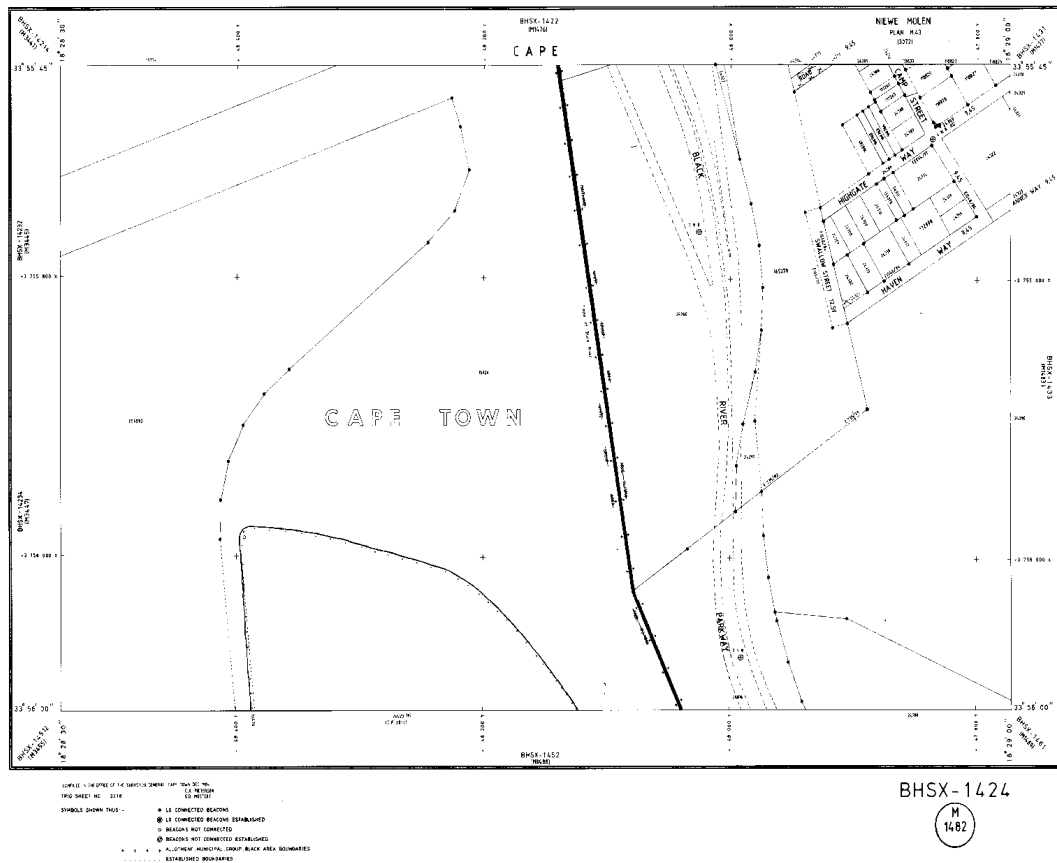
- 4.1 The site is referred to The South African Astronomical Observatory, Erf 26423; Cape Town, Western Cape.

5. DESCRIPTION OF THE AREA TO BE DECLARED (SITE BOUNDARIES)

- 5.1 The SAAO is located on a raised hill - a corner site between two landmark developments, the Valkenberg Psychiatric Hospital (east) and The River Club (west). It is placed on the extension of Station Road, Observatory, which terminates as Observatory Road adjacent to Valkenberg Psychiatric Hospital. Observatory Road is essentially a dead-end that converges into a pedestrian bridge which spans both the Black River and Black River Parkway to give access to the Maitland Garden Village, the Oude Molen Estate and the Alexandria Hospital precinct. West and northwest of the site the Black- and Liesbeeck River confluence creates a wetland with remnants of indigenous plants, reed and wild grass. The site is further bracketed by Liesbeeck Parkway to the west and Black River Parkway to the east.
- 5.2 Currently the declaration boundaries can be defined as follows:

| Site Name | Erf No / Province | Town | Municipality |
|--|--------------------|-----------|-----------------------|
| The South African Astronomical Observatory | 26423 Western Cape | Cape Town | The City of Cape Town |





6. CONSERVATION MANAGEMENT OF THE RESOURCE

- 6.1. The site is currently managed by the South African Astronomical Observatory (a department off the NRF). The site is still in use a centre for astronomical research.
- 6.2. There is a draft Heritage Agreement between SAHRA and the NRF which is currently being processed for signing in order to address general conservation and maintenance on the site.
- 6.3. HWC have issued a two year permit for alterations and renovations on the site including the upgrading of the perimeter fence, universal accessibility and pathways.

7. CONDITION ASSESSMENT AND POTENTIAL THREATS

- 7.1. The building and site are in a good condition. It remains a fully functional academic research center with a dedicated facilities management department and an annual maintenance plan. There are currently no areas that are at risk.
- 7.2. The NRF has future plans to extend some of its modern research facilities as well as to construct new buildings.

8. RESOURCE UTILISATION

8.1. The South African Astronomical Observatory (SAAO) was formed in the 1970's with the merging of the Royal Observatory, Cape Town (date of origin 1825-28), the Republic Observatory, Johannesburg (date of origin 1903) and the Radcliffe Observatory in Pretoria. The Council for Scientific and Industrial Research (CSIR) of South Africa and the Science and Research Council (SERC) of the United Kingdom in combination formed the SAAO. The current status places it as a facility of the National Research Foundation under the Department of Science and Technology. Its prime function is to conduct fundamental research in Astronomy and Astrophysics by providing an excellent facility and by promoting Astronomy and Astrophysics in Southern Africa. A number of historic telescopes are found on site housed in a number of domes with the museum concentrating on historic scientific instruments. The headquarters of the SAAO is located on the grounds of the Observatory. The administrative headquarters, computing facilities, engineering workshops, the national library for astronomy and space sciences are in close proximity on site. The original Observatory Building houses the offices, a national library and computer facilities.

9. RECOMMENDATION

9.1. It is recommended that the GDRC approve to recommend that Council approve the declaration of the South African Astronomical Observatory as a National Heritage Site.

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| Prepared By: | | Supported By: | |
| Ben Mwasinga Manager: Built Environment | | Nkosazana Machete Manager: Heritage Protection | |
| Date | | Date: | |

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|---|--|---|--|
| Recommendation supported by GDRC | | Recommendation not supported by GDRC | |
| Mamakomoreng Nkhasi - Lesaoana Chairperson: GDRC | | Signature | |
| Date: | | | |

Proposal for National Heritage Site Declaration: The South African Astronomical Observatory,
Observatory, Cape Town, Western Cape

| Recommendation supported by EXCo | | Recommendation not supported by EXCo | |
|---|--|---|--|
| Thomas Kgokolo Chairperson: EXCo | | Signature | |
| Date: | | | |

| Recommendation supported by HRM Committee | | Recommendation not supported by HRM Committee | |
|--|--|--|--|
| Prof. H.C. Bredekamp Chairperson: HRM Committee | | Signature | |
| Date: | | | |

| Recommendation supported by Council | | Recommendation not supported by Council | |
|--|--|--|--|
| Prof. S. Bouillon Chairperson: Council | | Signature | |
| Date: | | | |