FINAL REPORT

HERITAGE IMPACT ASSESSMENT FOR CRL2 WORKS AT FORMER BUKIT TIMAH TURF CLUB

for

URBAN REDEVELOPMENT AUTHORITY

SEPTEMBER, 2022

NUS National University of Singapore | DOA ARCHITECTURE

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Acknowledgments

We would like to acknowledge the permission given by the following organizations and individuals for the use of their records, maps, photos, and information in the report:

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National Heritage Board, Singapore
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Royal Collection Trust
RAF Seletar Association [RAFSA]
British Royal Air Force [RAF]
Ministry of Communications and Information [MCI]
Mark Bailey
Formwerkz
Archi-Theme Partnerships

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Executive Summary

Introduction

A Heritage Impact Assessment (HIA) has been commissioned by the Urban Redevelopment Authority of Singapore for proposed infrastructure works to support the redevelopment of the former Bukit Timah Turf Club (henceforth referred to in this report as the former Bukit Timah Racecourse to avoid conflation with Singapore Turf Club, the organisation). This HIA report focuses on a subset of infrastructure works which comprises the construction of a new MRT Station (CR14) and associated tunnels for the Cross Island Line Phase 2 (CRL2) alignment. The assessment considers the impacts arising from temporary works, notably tunnelling and open-cut excavations, as well as permanent impacts arising from construction of the new station building and associated works.

The full redevelopment of the former Bukit Timah Racecourse and the associated heritage impacts is the subject of a separate HIA report that will be published subsequently when ready.

This HIA comprises an inspection and recording of the extant buildings and site features and preliminary assessment of condition; a review and summary of readily available archival materials; an evaluation of the heritage significance of the site; a review of the proposed infrastructure plan and the heritage impact that arises from it, and an interpretation plan. The study area of this HIA report is limited to the buildings, structures and sites that would be directly affected by or in close proximity to CR14 and the associated tunnels for CRL2 alignment.

Description of the Former Bukit Timah Racecourse Site

The site was used as a horse racing venue until its closure in 1999. Since 2000, it has been operating in a mixed-use format including a retail shopping mall (located in the former North and South Grandstands) and the Bukit Timah Saddle Club (a riding club), which continues to operate to this day.

The site comprises 98 hectares and contains numerous buildings ranging from major public buildings, principally the North and South Grandstands, to modest workers' quarters, all set in a lush green landscape of mature trees, grassland and topographical features, with distant views north toward the Central Catchment Nature Reserve.

The general condition is good, the degree of wear and tear consistent with the age and form of the buildings.

Heritage Value

The heritage value[1] of the site is high. The former Bukit Timah Racecourse operated as a commercial racecourse from 1933 to 1999. It built on the development of the former racecourse at Farrer Park and it proved a commercial and philanthropic success. It was one of many racecourses in South-East Asia founded by expatriates but was soon used by locals from a variety of backgrounds, which was enhanced by the switch in 1960 from being a private members' club to a sporting venue open to the general public. Bukit Timah Racecourse owes its success to this change.

Horse racing in Singapore is closely intertwined with the Singapore Turf Club ("STC") and the Bukit Timah Racecourse. The founding members of the Singapore Sporting Club (the forerunner of the STC) – William Henry Macleod Read and the STC's first chairman - Tan Sri Runme Shaw – were respectively the same people who founded the first racecourse in Singapore, at Farrer Park and the development of Bukit Timah Racecourse. In later years, the STC became an agent of the Singapore Totalisator Board ("Tote Board"), which regulated horse betting. It is therefore fair to say that the development of horse racing in Singapore and the history of STC are synonymous.

The STC and the Bukit Timah Racecourse are, however, mutually distinctive. Whilst STC was instrumental in establishing, and for many years responsible for, running horse racing, the Bukit Timah Racecourse was, and remains, the tangible evidence of it. The racecourse and all that comprises it – the buildings and the spaces between them, the landscape and outward views from the grandstands – embody a strong sense of place that recalls the experience of ordinary people when they visited, including the anticipation and thrill of the race; the serenity of distant views; the grandeur of the major buildings, and the crisply presented landscape.

Overall, the site played a significant part in the life of Singapore at a time when the country had quite recently become independent. The North Grandstand in particular embodied an enterprising spirit that was outward-looking and ambitious for the future. This building represents both the high point of horse racing in terms of the capacity that it provided and the self-confidence of an architectural style that was internationalist rather than colonial.

The site also has intangible heritage value. Beyond the association with STC, the site's value to society is in its representation of the people associated with its growth, development and day-to-day operation. Consideration has also been given to site's recent history from 1999 onwards, during the value assessment process.

1 Heritage value – a measure of the importance of a heritage asset, typically expressed in terms of its historical, aesthetic and social significance.

Heritage Impact and Assessment

The intention to construct CR14 station within former Bukit Timah Racecourse was considered as part of the planning for CRL2 which runs through areas such as King Albert Park, Clementi, West Coast and Jurong Lake District. CRL2 will shorten travel times for commuters travelling to and from the western parts of Singapore. The proposed CR14 station aims to enhance the accessibility of the site and serve the future developments within Turf City, of which the plans are still under study by URA. It is believed that the proposed project will be beneficial to the future adaptive reuse of the existing historic buildings, namely the North and South Grandstands, Secretaries' Bungalows, Duplex Flat, Saddle Club and other buildings or structure associated with the horse racing history of the site. It is inevitable that the construction of CR14 station and associated tunnels will have some impact on the site's heritage value.

The impact assessment therefore considers the scope for mitigation of identified negative impacts. It concludes that effective mitigation can be applied in two forms - firstly, to minimise the physical and visual impacts on the affected buildings, structure and landscape, and the extent of demolition required; and secondly, to interpret the heritage value of the site more generally. The intended outcome of this is to retain that which is considered valuable yet capable of repurposing, while creating new infrastructure and spaces that acknowledge and draw on the heritage significance of the place.

Conclusion

This study concludes that the proposed construction of CR14 station and associated tunnels within the former Bukit Timah Racecourse site is capable of retaining sufficient heritage value that would tell the story of horse racing at Bukit Timah and more generally in Singapore. There will be heritage impacts, some of which will be moderately adverse, but by retaining most of the extant buildings including the two grandstands, former Secretaries' Bungalows, Duplex Flat, Saddle Club compound and the racetrack, the principal characteristics of the site can be properly conveyed tangibly without diminishing its heritage value.

The conservation guidelines and the interpretation plan outlined in Chapter 8 provide a range of ideas that will assist in mitigating the impacts of the proposed works, and set a series of guidelines that can be referenced for any redevelopment proposals for the site. The overarching intention is to provide future residents and visitors alike with the opportunity to know more about Bukit Timah Racecourse's history and to appreciate the special nature of this place by virtue of conserving the heritage elements of value and improving accessibility to them.

Recommendations

In addition to the mitigation measures set out in this study, it is recommended that a Conservation Management Plan (CMP) for the site is commissioned. A CMP is typically an authoritative record of the heritage value of a place because it follows in-depth research across a wide range of archival sources. Among other things, a CMP would provide a policy framework that would provide a useful basis for informing the design development and assist any future public engagement measures. Its principal purpose is to facilitate change, which sometimes can be radical in its nature and/or extent, in a manner that is sensitive to the heritage value of a place. As such it can be a valuable tool when considering a change of use of culturally significant sites.

1.0 Introduction

1.1 Background

The Singapore Turf Club was established in 1842. Back then, it was known as the Singapore Sporting Club. The facility was first located at Farrer Park before it moved to Bukit Timah in 1933 to cater to a growing interest in horse racing. Operations and racing continued through World War I, during which the Club raised money for war funds. In 1924, the Singapore Sporting Club changed its name to the Singapore Turf Club, in order to clearly address its function as a horse racing facility.

The relatively smaller facility in Farrer Park proved inadequate to cater to the rising interest in horse racing. Therefore, the facility was moved to Bukit Timah along with a more expansive grandstand, which was able to host a greater audience. The Bukit Timah Racecourse was completed in 1933 and regarded as one of the centres of horse racing in the East.

During World War II, however, operations came to a halt and eventually resumed in 1947. After the war, the facility in Bukit Timah gradually improved according to the rising expansion of the horse racing industry. In 1961, cross-betting across three turf clubs in Malaya started, and a second grandstand was introduced in the facility, which could cater to more than 50,000 people.

As a notable centre of horse racing, the facility was visited by Queen Elizabeth II, the Duke of Edinburgh and Princess Anne on Feb 20, 1972, during their state visit to Singapore. The Queen Elizabeth II Cup was eventually established in honour of her visit, and is still commemorated today.
In 1988, the Singapore Government formed the Tote Board to oversee the operations and income of the Turf Club. Over the years, the Turf Club and later the Tote Board has given out more than a billion dollars in grants from the surpluses of the Turf Club to public and charitable causes.

Across the years, as interest in horse racing grew locally and abroad, problems with the facility in Bukit Timah started to emerge. These included traffic jams and noise pollution created by the operations, which were particularly problematic considering that the racecourse was located in a prime residential area. Hence, the Turf Club was relocated to Kranji under a new master plan for land usage in Singapore, with work in Kranji beginning in 1995. The current facility in Kranji was opened in 1999.

1.2 Objectives

This study aims to research the former Bukit Timah Racecourse site:

1. To identify key individual buildings/ areas with significant values within the study area;
2. To assess and establish the comparative significance of the existing buildings and structures and settings within the study area;
3. To conduct a Heritage Impact Assessment for CR14 and the associated tunnels for CRL2 alignment; and
4. To propose mitigation and heritage interpretation measures for CR14 and the associated tunnels for CRL2 alignment.

1.3 Methodology

1.3.1 Criteria

All significant objects, features and structures identified have been documented according to a broad set of international standards with due consideration to the local situation. The assessment criteria used for the study mainly stem from the concepts and principles listed as below:

1. International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter, 1964).
2. *What is social value?* Chris Johnston and Australian Heritage Commission (1992). Canberra: Australian Government Publication Service.
3. Australia's ICOMOS Charter for Places of Cultural Significance (Burra Charter, 1999).
4. Principles for the Conservation of Heritage Sites in China (China Principles, 2002).
5. *The conservation plan: A guide to the preparation of conservation plans for places of European cultural significance/* James Semple Kerr (2004). Sydney: New South Wales.
6. *Conservation principles: Policies and guidance for the sustainable management of the historic environment/* Paul Drury (2008). English Heritage.

Based on the local situation and criteria from various international standards (see Tables 1.1 to 1.3), the relevant attributes - such as whether the study area is vital in defining, maintaining or supporting the character of an area; is physically, functionally, visually or historically linked to its surroundings; is a landmark; is associated with an important phase, events, theme, person, activities, organisation or institution that is significant to Singapore; is associated with the social development of Singapore; broadly enables and facilitates social connection, networks and other relations; has a design and style that represents an example of an architectural style, building typology, use of the building - have been studied in detail to recognise the various heritage values attached to the study area.

The methodology to recognise various values was used to conduct a rapid survey of the heritage building clusters and individual buildings, structures and settings within the study area to determine their significance.

While significance can be assessed and discussed with regards to factual and often tangible characteristics such as its aesthetic and design qualities, new or unique technologies and association with important people or events, an important additional element of significance is what makes things valued by the people who experience and appreciate them. In this way, assessing significance can be very emotive and subjective. It is therefore essential to combine a range of heritage values in order to understand significance.

For this project, the assessment of significance has been based upon various characteristics or heritage values that contribute to its overall importance, including:

- Heritage values (aesthetic, historic, evidential, communal) as defined in Historic England's *Conservation Principles*.
- An assessment of built fabric based on an understanding of its historical development, association with other aspects of value and comparative analysis of the built fabric.
- Historical associations with, for example, other horse racing and equestrian sports development in Singapore and the region/ internationally.
- Contribution to setting and views.
- Community interest and value.

Our research, the results from past studies, oral information and our understanding of the physical built fabric has been used to build upon this assessment, resulting in a clear, concise and easy to understand assessment of significance.

The heritage values of the site have been afforded a designation, as explained in Chapter 2. This is to understand their relative contribution to the significance of the site. The Statement of Significance is documented in Chapter 3, where the various elements are assessed, and their levels of importance stated to have a summary overview of significance.

1.3.2 International Standards

Australia's ICOMOS Charter for Places of Cultural Significance (Burra Charter, 1999 and 2013)

Aesthetic Value	Consideration of the form, scale, colour, texture and materials of fabric; the smells and sounds associated with the land and its use.
Historic Value	The place has influenced or has been influenced by, a historic figure, event, phase or activity.
Scientific Value	The place is involved with and may contribute further substantial information on important data that is of rarity, quality or representiveness.
Social Value	The place is associated with spiritual, political, national or other cultural sentiment of a majority or minority group.

Table 1.1 Australia's ICOMOS Charter for Places of Cultural Significance (Burra Charter, 1999 and 2013).

Principles for the Conservation of Heritage Sites in China (China Principles, 2015)

Historical Value	i. Important reasons led to its construction, and the site authentically reflects the historical reality. ii. Significant events occurred at the site or important figures were active there, and its historic setting accurately reflects these events or the activities of these people. iii. The site illustrates the material production, lifestyle, thought, customs and traditions or social practices of a particular historical period. iv. The existence of the site can prove, correct, or supplement facts documented in historical records. v. The historical remains contain a unique or extremely rare period or type elements or are representative of a type of site. vi. Stages of a site's transformations over time are capable of being revealed.
Artistic Value	i. Architectural arts, including spatial composition, building style, decoration, and aesthetic form. ii. Landscape arts, including cultural, urban, and garden landscapes of famous scenic locations, as well as particular vistas comprising a landscape of ruins. iii. Associated sculptural and decorative arts, including carvings, statues and fixed ornamentation, frescoes, and furnishings. iv. Immovable sculptural artistic works that are unique in the period, type, subject, appearance or artisan skills. v. The creative process and means of expression of the arts as mentioned above.
Scientific Value	i. Plan and design, including the selection and layout of the site, protection of the ecology, response to threats of disaster, and architectural form and structural design. ii. Construction, materials, and techniques and the level of scientific and technological achievement they represented for their time, or their importance as a link in the development of science and technology. iii. A facility or place where scientific experiments, production, or transportation, and so on, occurred. iv. A place where important scientific and technological information is recorded and preserved.

Table 1.2: Principles for the conservation of heritage sites in China.
(Source: http://hdl.handle.net/10020/gci_pubs/china_principles_2015).

Conservation principles: Policies and guidance for the sustainable management of the historic environment (English Heritage, 2008)

Evidential Value	i. Derives from the potential of a place to yield evidence either in the forms of material (such as archaeological deposits) or written record about past human activity.
Historical Value	i. Derives from how past people, events and aspects of life can be connected through a place to the present. It tends to be illustrative or associative. ii. Depends upon both sound identification and direct experience of fabric or landscape that has survived from the past. iii. The authenticity of a place indeed often lies in the visible evidence of change as a result of people responding to changing circumstances. Historical values are harmed only to the extent that adaptation has obliterated or concealed them, although completeness does tend to strengthen illustrative value.
Aesthetic Value	i. Derives from how people draw sensory and intellectual stimulation from a place. ii. It can be the result of the conscious design of a place, including artistic endeavor. Equally, they can be the seemingly fortuitous outcome of the way in which a place has evolved and been used over time. iii. Design value relates primarily to the aesthetic qualities generated by the conscious design of a building, structure, or a landscape as a whole. It embraces composition (form, proportions, massing, silhouette, views and vistas, circulation) and usually materials or planting, decoration or detailing, and craftsmanship. It may extend to an intellectual programme governing the design, and the choice or influence of sources from which it was derived. It may be attributed to a known patron, architect, designer, gardener, or craftsman (and so have associated value) or be a mature product of a vernacular tradition of a building or land management. Strong indicators of importance are quality of design and execution, and innovation, particular if influential.
Communal Value	i. Derives from the meaning of a place for the people who relate to it, or for whom it figures in their collective experience or memory. ii. Commemorative and symbolic values reflect the meanings of a place for those who draw part of their identity from it or have emotional links to it. iii. Social value is associated with places that people perceive as a source of identity, distinctiveness, social interaction and coherence. They may relate to an activity that is associated with the place, rather than with its physical fabric. The social value of a place may indeed have no direct relationship to any formal historical or aesthetic values that may have been ascribed to it.

Table 1.3: Conservation principles: Policies and guidance for the sustainable management of the historic environment. (Source: English Heritage,2008).

1.3.3 Defining Values

For Bukit Timah Racecourse, heritage values[2] attached to the site are noted in Table 1.4 below. The four heritage values are further subdivided by eleven attributes. The assessment of significance uses a scoring mechanism as explained in the Table 1.5 to establish the score, and the subsequent significance band - 1 to 3. The resultant scores should be treated as indicative only.

	Attributes Considered	Score
Aesthetic and Architectural Value	i. The design and style represent an example of an architectural style, building typology, use of the building. ii. The building is an example of craftsmanship/ workmanship, and construction techniques. iii. Relative rarity and uniqueness of the building. iv. Building intactness and legibility.	2 points each, maximum 6 points, minimum 0 points.
Historical Value	i. The place is associated with an important phase, events, theme, person, activities, organisation or institution that is significant to Singapore. ii. The place is associated with the daily life of the general community in Singapore. iii. The place is associated with the planning histories and development milestones of Singapore.	1 points each, maximum 3 points, minimum 0 points.
Communal and Social Value	i. The place enables and facilitates social connection, networks, and other relations in a broad sense, one that is not necessarily related to the historical value of the place. ii. The place provides a spiritual or traditional connection between past and present. iii. The place provides an essential reference point in a community's identity or sense of itself in both the past and its recent history	1 points each, maximum 3 points, minimum 0 points.
Contextual Value	i. The place is important in defining, maintaining or supporting the character of an area. ii. The place is physically, functionally, visually, or historically linked to its surrounding. iii. The place is a landmark.	1 points each, maximum 3 points, minimum 0 points.

Table 1.4: Heritage values and scoring. (Source: Author).

2 The terms used in the list of values are derived from a variety of sources to represent the cultural signficance of the building to best effect. See Article 5, The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013; an Understanding Heritage Values, Conservation Principles Policies and Guidance. Historic England 2008

1.3.4 Significance as the Basis of Conservation

The philosophy of conservation is centred on significance. It helps to define what contribution various aspects of a place make to a wider understanding and appreciation of history, society, and culture. As such, understanding the significance of the Bukit Timah Racecourse is integral to its redevelopment.

> *'Significance lies at the heart of every conservation action...unless we understand why a place is worthy of conservation, the whole business of conservation makes very little sense'.*[3]

The site's principal source of heritage value lies in its association with horse racing as noted above. Therefore, the baseline for assessment of the site is as a horse racing venue. However, since the transfer of racing to Kranji in 1999, the site's current use is an interim circumstance that is both partial (the site generally is substantially under-used) and without distinction. Therefore, any considerations for future plans within the site should be sustainable, and this should be reflected in the heritage impact assessment as well in the mitigation and interpretation strategy.

1.3.5 Defining Significance

Significance – or, as it is also known, cultural significance – has been defined by ICOMOS as the

> *'aesthetic, historic, scientific, social, or spiritual value for past, present, or future generations... Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects'.*[4]

This description and definition of significance is generally acceptable on an international basis. This sentiment is described by ICOMOS as follows:

> *'Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences'.* [5]

In the case of Bukit Timah Racecourse, the importance to sport and equestrianism is essential to understanding and assessing its significance.

The basis for assessment of the Bukit Timah Racecourse follows the methodology set out in this section and also takes into account guidelines published by URA.[6] This provides a method of assessment of historic assets which enables informed management and a logical approach to decision-making in respect of change.

3 Clark, K. Informed Conservation, (2001).
4 The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013
5 The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013
6 Urban Redevelopment Authority. (2021). Conservation Principles. https://www.ura.gov.sg/Corporate/Guidelines/Conservation/Conservation-Principles. It should be noted that the Conservation Guidelines are relevant to the extent of assessment of character defining elements only.

This study will provide a framework for decision-making, to ensure the long-term future of the remaining heritage assets and their settings across the site, taking into consideration that at the former Bukit Timah Racecourse site, there are distinct eras of development, which feature historically significant events.

For the purpose of this report, significance is determined using the following formula:

Significance
=
Aesthetic & Architectural Value + Historical Value
+ Communal & Social Value + Contextual Value

The significance level and the subsequent banding is set out in the table below:

	Significance Level	Definition	Significance Score
Band 1	Exceptional	Elements which make a **major contribution to the overall significance of the place**. Spaces, elements or fabric originally of substantial intrinsic quality, and exhibit a high degree of intactness and quality, though minor alterations or degradation may be evident.	11-15
Band 2	Moderate	Elements which make a **moderate contribution to the overall significance of the place**. Spaces, elements or fabric originally of some intrinsic quality, and may have undergone minor or extensive alteration or degradation.	6-10
Band 3	Low	Elements which make a **minor contribution to the overall significance of the place**. Spaces, elements or fabric originally of little intrinsic quality, and may have undergone alteration or degradation. Original spaces, elements or fabrics of some quality, which have undergone extensive alteration or adaptation to the extent that only isolated remnants survive.	3-5
	Neutral	Elements which are of **little consequence in terms of understanding or appreciating the site and its developments**, without being intrusive.	1-2
	Intrusive	Elements which are **visually intrusive or which obscure the understanding of significant elements of the site,** and may be identified for removal.	0

Table 1.5: Definition of significance level. (Source definition of terms is developed based on Kerr, J, Conservation plan: A guide to the preparation of conservation plans for places of European cultural significance. Australia ICOMOS, 2013, pp. 19-20; and Anonymous, Assessing heritage significance. NSW Heritage Office, 2011, p. 11).

1.3.6 Consultation and Engagement

During the preparation of this report and appraisal of the site, the Singapore Land Authority and Urban Redevelopment Authority have been consulted informally to gain access to the publicly-restricted areas of the site and to understand the extent and degree of their awareness and appreciation of Bukit Timah Racecourse.

Subsequent oral history interviews were conducted to assist in mapping the historical and contemporary social significance of the Bukit Timah Racecourse, and to gain information on prominent owners, notable personalities and events that were connected with the site.

1.4 Structure of the Report

The use of this heritage research study report will help to inform future conservation, repair, management, and use of the site.

This **Chapter 1** introduces the background to the project and objectives of the Heritage Research Study for the Former Bukit Timah Racecourse, and the system for assessing heritage significance.

Chapter 2 and 3 detail an understanding of the site, its context, and its historical development. This has been informed by a Baseline Study which comprised a survey of the site and archival research to place the Study Area in a social, architectural, environmental, and historical context.

Chapter 4 describes the aesthetic and architectural, historic, communal and social, and contextual values of the site by individual building/structure/space. It has been supported by interviewing several previous and current users of the site.

Chapter 5 is an assessment of cultural significance according to the heritage values set out in Chapter 4.

Chapter 6 is an illustrated inventory of the site's character-defining elements (CDE) including buildings, structures, spaces, and views. The significance of each CDE is assessed according to the criteria outlined in Chapter 1.

Chapter 7 and the impact assessment is based on observations made during site visits and a review of the infrastructural works provided by the Land Transport Authority. It addresses the impact of the proposals on the heritage values of the former Bukit Timah Turf Club and existing BTSC as outlined in Chapter 4 and mitigation measures, if any.

Chapter 8 maps out a suggested approach to interpretation, following the research findings and Statement of Significance in Chapters 4 and 5 respectively.

Chapter 9 looks at sustainable management and opportunities for the future. It outlines a series of policies and guidance applicable to the historic buildings during the works and after the project's completion as part of a total asset plan, including requirements for routine and periodic maintenance.

1.5 Gaps in Knowledge

At the time of publication, there are no known gaps in knowledge. Other works that may impact heritage assets are also not known. This report will therefore need to be reviewed and updated as necessary when the full extent of works is known.

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2.0 Understanding the Site and Context

2.1 Location and Area of the Study

The former Bukit Timah Turf Club site is located at the south-western tip of the Central Water Catchment area, Bukit Timah Nature Reserve and Central Catchment Nature Reserve. The site is adjacent to Bukit Timah Road, one of Singapore's oldest and longest roads, built to connect the bustling town centre to the heavily forested north (Figure 2.1).

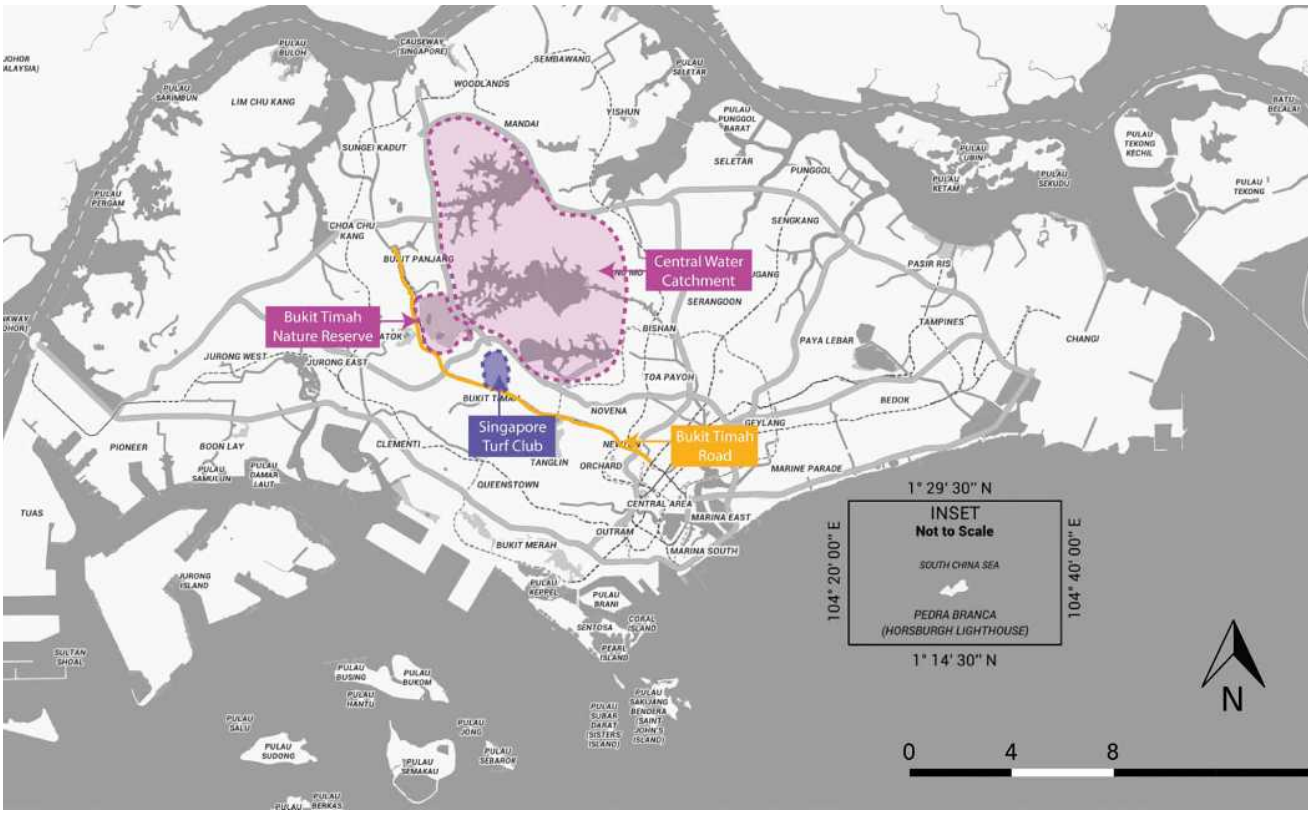

Figure 2.1. The former Bukit Timah Turf Club is located at the southwestern tip of the Central Water Catchment area, 2021 (Source: OneMap SG, Adapted by Author).

It is located at a hillside, with the highest point at approximately 93m along Bukit Tinggi Road, north of the Turf Club. Along its north-eastern boundary is Champions Public Golf Course, where it rises above the Main Track at a highest point of around 35m (Figure 2.2).

The West, South and East are Swiss Club housing estate, Dunearn residential estate, Sixth Avenue MRT and commercial area, and Eng Neo Ave residential estate respectively. Further to the West are heritage sites Former Ford Factory, Former Beauty World, Bukit Timah Nature Reserve and Former Bukit Timah Railway Station. While on the further East are Adam Food Centre, Cluny Court shophouses and Former Raffles College (Figure 2.3).

Figure 2.2 Elevation map of the former Bukit Timah Turf Club.
(Source: Urban Redevelopment Authority).

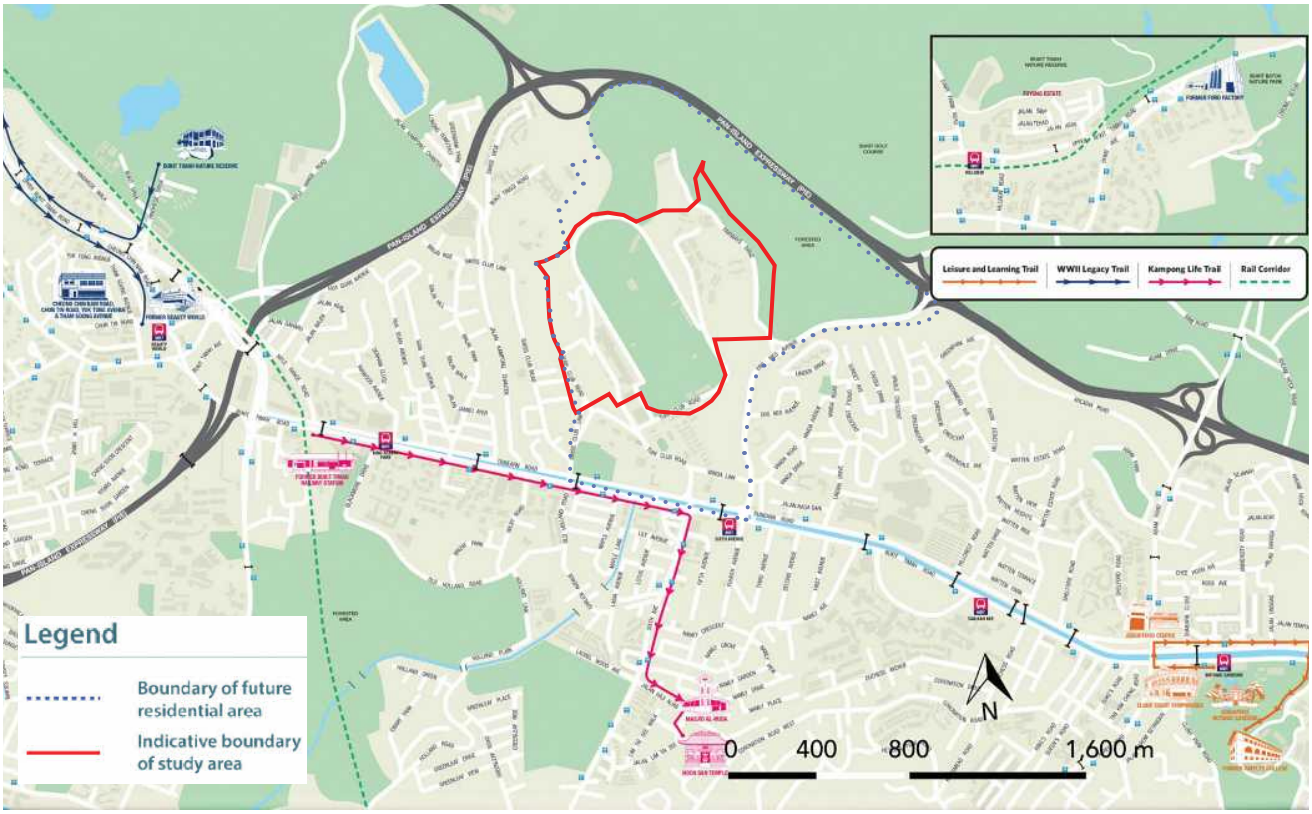

Figure 2.3 Heritage sites around the former Bukit Timah Turf Club .
(Source: National Heritage Board).

2.2 Setting and Context

The present site is bounded by the Dunearn Road stretch of the Pan Island Expressway on its North, Eng Neo Ave on its East, Dunearn Road on its South and Swiss Club Good Class Bungalow Area (GCBA) on its West (Figure 2.3). The site, while surrounded by residential areas, is relatively close to the lush rainforests of the Central Catchment Nature Reserve and Bukit Timah Nature Reserve, lending it a refreshing air and tranquil atmosphere amidst its verdant landscape. The main entrance is from Dunearn Road into Turf Club Road, passing through a series of stables and into the Grandstand car park.

For the report, each individual building, structure and open space has been given a unique ID (Figure 2.5 and Table 2.1). These IDs are quoted throughout the report - for example: South Grandstand (Building No. 1.1). Table 2.1 also identifies which building, structure and open space is within and outside the study area. The study area of this report is limited to the buildings, structures and sites that would be directly affected by or in close proximity to CR14 and the associated tunnels for CRL2 alignment as shown in Figure 2.4 and 2.5.

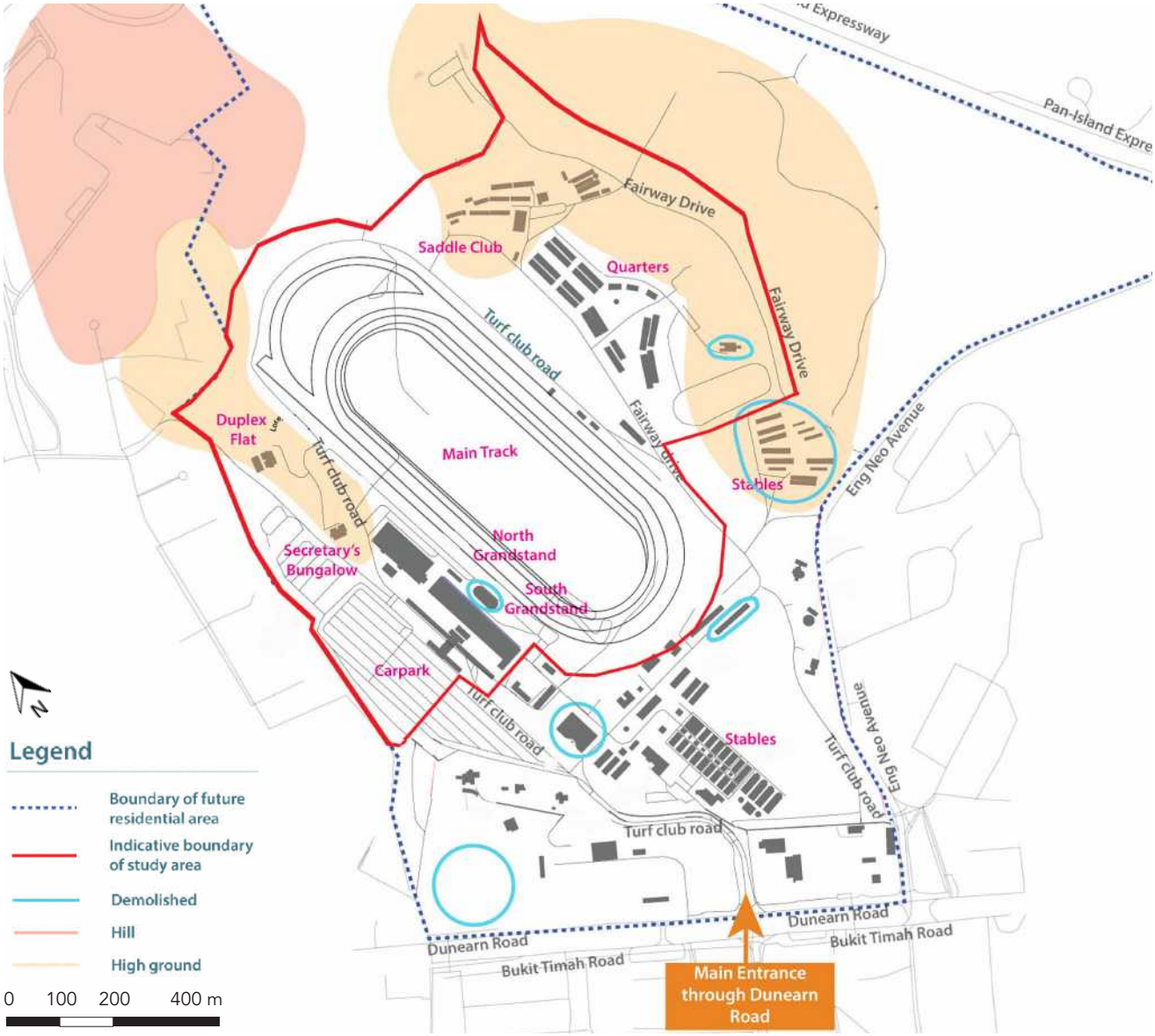

Figure 2.4 Site plan of the former Bukit Timah Turf Club showing building blocks and the immediate surroundings, 2022.

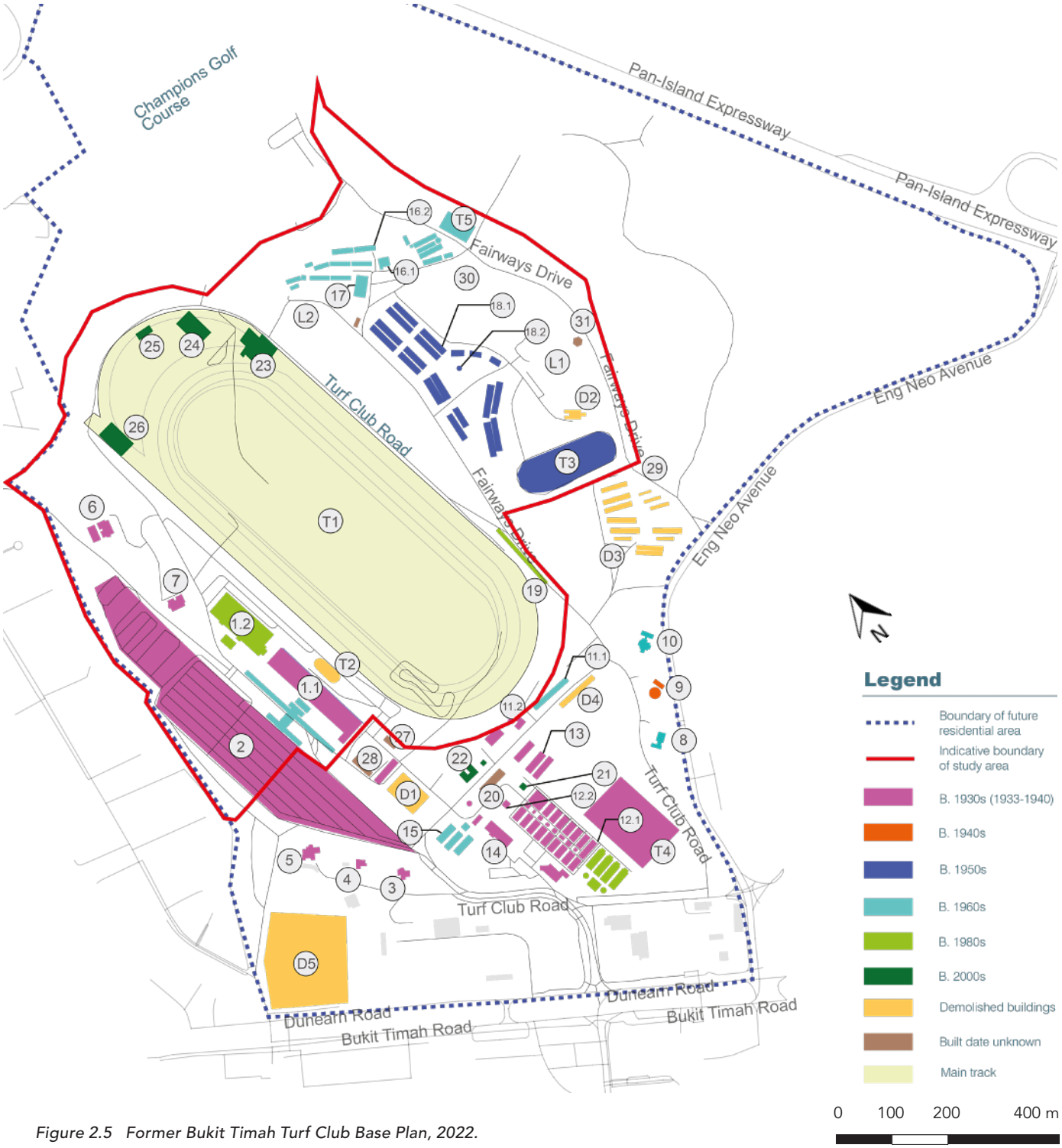

Figure 2.5 Former Bukit Timah Turf Club Base Plan, 2022.

Buildings or Structures within the Study Area

No.	Structure	Address	Tenanted (Yes/No)	Current Tenant	Built date
1.1	South Grandstand	200 Turf Club Road	Yes	The Grandstand Mall	1933
1.2	North Grandstand	200 Turf Club Road	Yes	The Grandstand Mall	1981
2	Grandstand Car Park	210 Turf Club Road	Yes	The Grandstand Car Mall	1930s
6	Duplex Flat (after the 1980s renovation. Before that it was the secretary's bungalow)	192 Turf Club Road	Yes	Private residence	1933
7	Secretary's Bungalow (after the 1980s renovation. Before that it was the deputy secretary's bungalow)	198 Turf Club Road	No	Vacant	1933
16.1	Bukit Timah Saddle Club	51 Fairways Drive	Yes	Riders Cafe	1962
16.2	Stables	51 Fairways Drive	Yes	Bukit Timah Saddle Club	1962
17	Fairways Bungalow	55 Fairways Drive	Yes	Bright Path Preschool	Between 1960s-70s
18.1	Labourers' Quarters	53 Fairways Drive	No	Vacant	Between 1947-53
18.2	Community centre	55 Fairways Drive	No	Vacant	Unknown
19	Hay Barn	Turf Club Road	Yes	Bukit Timah Junkyard	1980s
23	Basketball court shelter	Turf Club Road	Yes	SG Basketball	After 2000
24	Sheltered sporting arena	Turf Club Road	Yes	The Cage Sports Park	After 2000
25	Container blocks	Turf Club Road	Unknown	Unknown	After 2000
26	Indoor sporting arena	Turf Club Road	Yes	Red Dynasty Paintball Park	After 2000

No.	Structure	Address	Tenanted (Yes/No)	Current Tenant	Built date
29	Horse Bridge	Fairways Drive	No	NA	Unknown
30	Horse Bridge	Fairways Drive	No	NA	Unknown
31	Hot Walker	Fairways Drive	No	NA	Unknown
D2	Equine Hospital	Fairways Drive	Demolished	NA	Between 1947-53
T1	Main Track	Turf Club Road	Yes	Sports Academies	1933
T3	Exercise Ring	Fairways Drive	Unknown	Unknown	Unknown
T5	Bukit Timah Saddle Club Track	51 Fairways Drive	Yes	Bukit Timah Saddle Club	Unknown
L1	Horse Pastures	Fairways Drive	Unknown	Unknown	Unknown
L2	Forested knoll	Fairways Drive	Unknown	Unknown	Unknown

Buildings or Structures outside the Study Area

No.	Structure	Address	Tenanted (Yes/No)	Current Tenant	Built date
3	Bungalow	232 Turf Club Road	Yes	Chiltern House	Between 1933-47
4	Bungalow	234 Turf Club Road	Yes	HCSA Dayspring Residential Treatment Centre	Between 1933-47
5	Bungalow	236 Turf Club Road	Yes	Little Paddington Preschool	Between 1933-47
8	Bungalow	32 Turf Club Road	Yes	Private residence	1960s
9	Bungalow	34 Turf Club Road	No	Vacant	1940s
10	Bungalow	36 Turf Club Road	Yes	Private residence	1960s
11.1	Syces' Quarters	2 Turf Club Road	Yes	Blue House Nursery & International Preschool	1970s
11.2	Labourer's Quarters	2 Turf Club Road	Yes	Blue House Nursery & International Preschool	1950s
12.1	Stables	100 Turf Club Road	Yes	Horse City	18Nos. Blocks: 1933 4Nos. Blocks, 2Nos. Rolling Boxes; and 2Nos. Stores: 1980
12.2	Feed Room	100 Turf Club Road	Yes	Impression Art Studio	1933
13	Stables	104 Turf Club Road	Yes	Rosebrook Developmental Centre	Between 1933-47
14	Workers' Quarters	106 Turf Club Road	Yes	Pegasus Hotel	1933
15	Stables	108 Turf Club Road	Yes	Cat Safari Singapore CSS, Sunny Heights	1962-64. Additions in 1994
20	Stables	100 Turf Club Road	Yes	Unknown	Unknown
21	Basketball court shelter	100 Turf Club Road	Yes	Unknown	After 2000
22	Tennis court shelter	Turf Club Road	Yes	Tanglin Academy Singapore	After 2000
27	Saddling Boxes	200 Turf Club Road	Yes	My Tennis Academy	Unknown

No.	Structure	Address	Tenanted (Yes/No)	Current Tenant	Built date
28	Saddling Stalls	200 Turf Club Road	Yes	Swallows and Amazons Kindergarten	Unknown
D1	Paddock Block	Turf Club Road	Demolished	NA	1933
D3	Stables	Turf Club Road	Demolished	NA	Between 1947-53
D4	Equine pool	Turf Club Road	Demolished	NA	Between 1933-81
D5	Multi-storey car park	Dunearn Road	Demolished	NA	1950s
T2	Parade Ring	Turf Club Road	Yes	The Grandstand Mall	Unknown
T4	Exercise Ring	100 Turf Club Road	Unknown	Unknown	Unknown

Table 2.1: Base Plan Map reference table, updated as of 2022.

The former Turf Club site consists of high grounds and a hill in the background and the low ground in the foreground as experienced from Turf Club Road entrance. By examining its topography, the low ground levelled area consists of stables and bungalows, while on slightly higher grounds are the North and South Grandstand (Building Nos. 1.2 and 1.1), Grandstand Car park (Building No. 2) and Main Track (T1). Further north is the highest area where the Duplex Flat (Building No. 6) and Secretary's Bungalow (Building No. 7) are located. The siting of the Duplex Flat and Secretary's Bungalow on high grounds are in line with their function as vantage points overlooking the Main Track on the lower ground.

Turf Club Road is a prominent arterial road connecting the stables (Building No. 12.1, 13 and 15) and workers' quarters (Building 14), Syces' quarters (Building No 11.1), and Labourers' quarters (11.2) with the North and South Grandstand, Paddock Block (D2), Parade Ring (T2) and Main Track (T1) providing direct circulation and ease of transport of horses and logistics to the main facilities during race days. Fairways Drive further connects Turf Club Road to the Bukit Timah Saddle Club (Building No. 16.1), labourers' quarters (Building No. 18.1) and the now-demolished stables (D3) located at the east side of the Main Track. These facilities are relatively tucked away from the Grandstand and Main Track, indicating their less dominant use during race days.

Bungalows (Building Nos. 8, 9, 10) are located along Vanda Link and sheltered by trees (Figure 2.6) which screen them from the nearby stables and exercise ring, ensuring privacy for its residents. Duplex Flat and Secretary's Bungalow are tucked in between the North Grandstand and Main Track, separated by trees and a spacious green area (Figure 2.7 & 2.8).

Figure 2.6. Trees and shrubberies along Vanda Link, creating a lush barrier separating private and public space, 2021.

Figure 2.7 198 Turf Club Road (Duplex flat) in the background separated by green spaces along 192 Turf Club Road, 2021.

Figure 2.8 Trees surrounding 192 Turf Club Rd (last known use as the Secretrary's residence), providing privacy from the Grandstand and Main Track, 2021.

Figure 2.9 The main track is currently being used a road as well as sports fields and academies, 2021.

Figure 2.10 The existing sports field facing the grandstand, 2021.

2.3 Current Status

The North and South Grandstand are currently used as commercial spaces and offices. Other buildings/ structures on-site are also tenanted and used for commercial purposes (Building Nos. 3, 4, 5, 11, 12, 13, 14, 15, 16, 17), while some are used as private residences (Building Nos. 6, 8, 10). The racing tracks which existed at the time racing ceased in 1999, have all been altered, with new facilities being built over them. Only the outline of the outer track is still partially visible as its configuration was incorporated into the construction of Turf Club Road in 2003. The original inner field was adapted for use as sport fields and academies. The buildings south of Fairways Drive, previously used for stables and equine hospitals have been demolished. Several other buildings have also been demolished, such as stables and a building at Paddock Block adjacent to the South Grandstand. The rest of the site is unoccupied.

2.4 Limitations

Some limitations were encountered when carrying out this baseline study. The first was restricted access to the site and its surrounding buildings/ structures. Most of the buildings were occupied - private residences/ workspaces - or were vacant and locked, and could not be entered. The second limitation was the lack of readily available architectural data regarding the buildings/ structures that were studied. The study area of this report is also only limited to the buildings, structures and sites that would be directly affected by or in close proximity to CR14 and the associated tunnels for CRL2 alignment.

A basic summary of the building, structures and open spaces is outlined in Table 2.1 For further details and the heritage values, see section 4.6.

3.0 History and Development

3.1 The beginnings of horse racing at Farrer Park

The STC is the sole horse racing institution in Singapore. It began life as the "Singapore Sporting Club", formed on 4 October 1842 by racing enthusiasts, under the leadership of Scottish businessman William Henry Macleod Read. They built Singapore's first racetrack and grandstand in what is now Farrer Park (Tan,1992), and first race took place in 1843 to mark the 24th anniversary of the founding of the colony by Stamford Raffles, with prize money of $150 (STC, n.d.).

In the beginning, horse racing was an amateur sport. Owners trained and rode their own ponies, obtained from Java and China. In the 1880s, racehorses were imported from Australia (Tan, 2019). On non-racing days, the grounds were used for various other activities, such as polo, golf, and even sheep herding (Bukit Timah Saddle Club, 2019). In 1896, with the formation of the Straits Racing Association (now the Malayan Racing Association), horse racing became a professional sport, with official rules. (STC, n.d.).

The Malayan Racing Association [MRA], was formed under the name of the "Straits Racing Association" in 1896 to promote horse racing in Singapore and Malaysia, overseeing the interests of the four turf clubs through the uniformity of its rules for racing. It was renamed the MRA later in 1961. Three of the turf clubs are located in Malaysia, namely the Penang Turf Club, Perak Turf Club, and Selangor Turf Club. The fourth is the STC.

Racing continued throughout World War I, and helped to raise money for the war effort. Shortly after the end of the war, the first aeroplane to land in Singapore touched down at the Racecourse on 4 December 1919, en-route to Darwin, on the very first flight from London to Australia.

In 1924, the club was re-named the Singapore Turf Club (Tan, n.d.).

Figure 3.1 Farrer Park Racecourse in the late 1840s. (Source: National Museum of Singapore, 1840s).

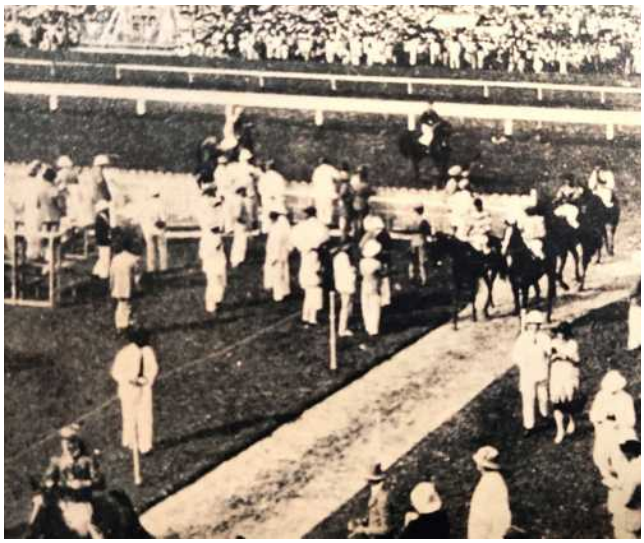

Figure 3.2 Race at Farrer Park Racecourse. (Source: Tan, 1992).

3.2 Relocation to Bukit Timah

As racing gained popularity, the Farrer Park Racecourse became inadequate for its growing requirements. In 1927, the STC sold the racecourse to the Singapore Improvement Trust for $1.5 million and, in 1929, purchased 244 acres of the Bukit Timah Rubber Estate, which was part of the Chasseriau Estate (Tan, 1992).The new Bukit Timah Racecourse was completed six years later, and was opened in 1933 by the Governor Sir Cecil Clementi (Tan,1992). Designed by the firm of Messrs Swan & Maclaren[7], it costs $2.7 million, including the purchase of the land. The new premises provided a range of facilities to enrich the visitors' experience. The grandstand, a steel-frame building arranged in three tiers and equipped with nearly 2,000 chairs supplied by Messrs Frankel Bros (The Straits Times, 1933), gave the spectators an uninterrupted view of the whole racecourse. Other amenities, such as the parade ring, tote house, syces' quarters, luncheon rooms, modern stables and the secretary's bungalow greatly enhanced the smooth running and efficiency of horse racing and related businesses.

Around the same time, Bukit Timah Railway Station was built near the new racecourse premises in 1932. Due to its proximity to the STC, the railway station served as an unloading point for racehorses (NHB, 2021).

With the onset of World War II, racing at Bukit Timah ceased for six years from 1941 to 1947. The Grandstand was used as a military hospital, first by the British, then by the Japanese. Under the Japanese, the stables and workers' quarters were used as military car parks. After liberation, it was used as a military transit centre.

The war left the Grandstand in poor condition, and a $3 million renovation project was launched. Racing resumed in 1947, while repairs to war damage continued for a few more years. Concurrently, the committee improved and expanded the operational scale of the racecourse. Sunday racing was introduced in 1959. The following year, members of the public were allowed to attend the races which hitherto had been open only to members and owners. (Tan, 1992).

As the racing industry grew, the STC initiated cross-betting between itself and the other three clubs in Malaya (Tan, 1992). From the 1960s to 1980s, horse racing events continued to garner more publicity within Singapore, and they were notably marked by a few events.

7 Messrs Swan & Maclaren was the most prominent architectural firm in Singapore during the later part of the British colonial era. The firm began in Singapore, Straits Settlements as Swan & Lermit in 1887 by two surveyor engineers, Archibald Alexandar Swan and Alfred Lermit. It later became Swan & Maclaren in 1892 when another James Waddell Boyd Maclaren joined along side Lermit withdrawing the partnership in 1890. The firm had designed multiple significant buildings in Singapore, such as Raffles Hotel, St Andrew's Cathedral, Masjid Sultan, Victoria Memorial Hall and Theatre, etc.

In 1972, Queen Elizabeth II of the United Kingdom visited the Bukit Timah Racecourse, which was then under the chairmanship of Tan Sri Runme Shaw, the philanthropist and founder of the Shaw Organisation. Her visit drew a crowd of over 20,000 who had come to get a glimpse of the Queen, along with Prince Philip and Princess Anne. To mark the occasion, the Queen Elizabeth II Cup was inaugurated, which was won that day by the legendary English jockey Lester Pigott, riding on *Jumbo Jet* (Tan, 1992).

Another landmark was the first license granted to a female jockey in 1981 (STC, n.d.).

In addition to racing, the racecourse also hosted other significant events, such as the Orchid Show, inaugurated in 1963 by the Yang di-Pertuan Negara (later President), Yusof bin Ishak (The Straits Times, 1963).

To accommodate more racegoers, the $18 million North Grandstand was opened in 1981 and the old South Grandstand was renovated. The North Grandstand, a bold, modern structure, designed by Charles Ho of Iversen and Van Sitteren, with its dramatic cantilevered roof, was in striking contrast to the old-fashioned colonial-era South Grandstand, and is one of the iconic buildings of Singapore's post-independence architecture.

Together, both grandstands could hold around 50,000 spectators. The STC also established microwave links which enabled racegoers to watch live racing events held outside of Singapore (STC, n.d). The STC was dissolved in March 1988 when the Tote Board, set up by the government, took over its operation. The board appointed Bukit Turf Club (BTC) as the agent to oversee the racing. The BTC later reverted to its original name - STC - in 1994.

Figure 3.3 The grandstand during a racing event. (Source: Tan, 1992).

Figure 3.4 Horse parade in the parade ring. (Source: Tan, 1992).

Figure 3.5 Queen Elizabeth presenting the Queen Elizabeth II Cup to the winner. (Source: Royal Collection Trust, 1972).

3.3 Current location at Kranji

Proposals to relocate the racecourse again emerged in the late 1980s because of the traffic congestion and noise which accompanied every racing event, and the accompanying nuisance to what was now the prime residential neighbourhood of Bukit Timah. (Singapore Monitor, 1984). In 1993, the STC announced plans to move the racecourse to Kranji (The Straits Times, 1993), with the intention of developing the original as a residential area. In 1999, the STC moved to new premises, and it was grandly opened in 2000 by the then President, S R Nathan, along with the $3 million Singapore International Cup as the opening race (STC, n.d.). Since then, horse racing has taken place at Kranji Racecourse, with Singapore Pools in charge of horse-betting since 2019.

3.4 Bukit Timah Racecourse after the move to Kranji

The Grandstands were leased first to Singapore Agro Agricultural, who reopened them as "Turf City Mall", then in 2012 to Cogent Land Capital, the current master tenants, who rebranded them as "The Grandstand". They have become a fascinating retrofitted megastructure, unique in Singapore, supporting a diverse range of tenants, including a large supermarket, sports facilities, pre-schools, art studios, offices, the studio of an award-winning architectural practice, as well as food and beverage outlets catering to all budgets, ranging from food courts, to bars, high end restaurants, and live seafood establishments complete with aquarium tanks. Units facing the former racecourse have magnificent views across the former racecourse, now occupied by playing fields and greenery. In their current incarnation, the grandstands are an example of what Bernard Tschumi called "cross-programming" which he defined as:

> *'using a given spatial configuration for a program not intended for it, that is, using a church building for bowling' … similar, for example, to 'typological displacement: a town hall inside the spatial configuration of a prison or a museum inside a car park structure. Reference: crossdressing'* (Tschumi, 1996).

In the midst of this change, the grandstand buildings maintained their architectural integrity, a testament to their strong architectonic qualities.

Farrer Park Racecourse (Source: NAS)

Construction of the extensions (Source: ST, 1956)

The North Grandstand (Source: Author)

Old Racecourse at Farrer Park

Formation of the Singapore Sporting Club initiated by William Henry Macleod Read.

STC sold Farrer Park Racecourse and purchased 244 acres of land from Bukit Timah Rubber Estate.

Operations were halted due to WWII. Buildings were used for hospitals and storage.

The South Grandstand was symmetrically extended on both sides, increasing total crowd capacity to 9,300.

The carpark at the junction of Dunearn Rd and Swiss Cottage Rd was renovated into a multi-storey carpark.

North Grandstand were built, increasing crowd capacity to a total of 60,000 people

New management under the Singapore Totalisator Board. The Board is in charge of the income of the Turf Club.

The buildings were leased to Singapore Agro Agricultural, who reopened them as "Turf City Mall"

1843 — 1924 — 1927 — 1933 — 1945 — 1950s — 1956 — 1960 — 1970s — 1972 — 1981 — 1987 — 1988 — 1999 — 2000 — 2012

Singapore Sporting Club changed its name into Singapore Turf Club (STC) to reflect its racing activities.

Bukit Timah Racecourse

Singapore Turf Club relocated its facility and operations to Bukit Timah.

Addition of carpark at the junction of Dunearn Rd and Swiss Cottage Rd (now demolished), as racing became more popular.

Membership of the Turf Club opened to the public, and interest in racing grew rapidly.

Queen Elizabeth, the Duke of Edinburgh and Princess Anne visited the Turf Club during their site visit to Singapore.

The carpark directly opposite the grandstands underwent a renovation, turning it into a multi-storey carpark , increasing capacity to up to 2,900 cars

Kranji Racecourse

Singapore Turf Club relocated its facility to Kranji, which still runs to this day.

In 2012 leased to Cogent Land Capital, who rebranded them as "The Grandstand", supporting a diverse range of tenants.

South Grandstand at Bukit Timah Racecourse (Source: NAS)

The Queen's visit (Source: NAS)

Seafood restaurant at The Grandstand, 2021 (Source: Author)

Office space at The Grandstand, 2021 (Source: Author)

Figure 3.6 Bukit Timah Racecourse summary timeline.

4.0 Heritage Values and Significance

Preamble

As explained in section 1, the significance of Bukit Timah Racecourse is broken down into sections according to the four heritage values as follows:

4.1 Aesthetic or Architectural Value

4.2 Historical Value

4.3 Communal and Social Value

4.4 Contextual Value

Note: Refer to Table 1.4 for definition of the heritage value attributes.

4.1 Aesthetic or Architectural Value

The Site	**Exceptional**

In the Introduction to *The Winning Connection – 150 years of Racing in Singapore*[8], the Bukit Timah Racecourse is described as a "picture-perfect parkland". One gets some sense of this in a 1950s aerial photo of the site (see fig 4.1), which showcases the crisp architecture of its buildings and the attention to detail in the maintenance of landscape. This is characteristic of the racecourse typology, which historically were well kept. This is also clearly indicative of the degree of investment in such sites in order to derive substantial aesthetic value.

STC and the Bukit Timah Racecourse, both individually and in association, played a substantial role in the development of horse racing in Asia, which in part is manifest in the characteristics of Bukit Timah. In comparison with other clubs in the region, the STC and Bukit Timah Racecourse appear to have been more popular/highly esteemed amongst racegoers, and STC has continued to operate till today[9].

Figure 4.1 Racecourse ariel view in circa 1950s. (Source: Mark Bailey)

8 Tan, S. (1992) *The Winning Connection: 150 years of racing in Singapore*. P9.

9 It should also be noted that comparisons are of limited value due to the different ways that different clubs have evolved. For example, The Hong Kong Jockey Club (1884), though still a private members' club, admits non-members to race meetings and turns over considerable sums every year; it also donates billions of dollars to charitable causes and is the largest employer in Hong Kong. It also has a monopoly on gambling in Hong Kong. Selangor Turf Club (1896); Perak (1884); and Penang (1896) have remained as private clubs. The Singapore Turf Club (1842), the oldest of these and now resident at Kranji, operates as a publicly-owned club.

Bukit Timah Racecourse was very well regarded by those whose views were recorded. The commemorative book [10], for example, declares:

> *"…the newspapers [claimed] that it was "a gloriously appointed racecourse" and "undoubtedly one of the finest racecourses in the East".* [11]

A more measured description is provided by a visitor, Douglas Graham, who, having met a Singapore-based English couple on board a ship, wrote in his diary:

> *"They took us to a meeting at the racecourse which, it is claimed, is the finest in the world. This statement I took with a grain of salt, but after seeing it I felt sure the claim was justified. "* [12]

This does not, of course, make Bukit Timah Racecourse site superior to others in the region but when placed alongside other characteristics, for example, the response to the privations of war, the degree of investment in the site over a sustained period of time, as explained elsewhere in this document, the reputation of Bukit Timah Racecourse as a high-quality venue is clear.

Bukit Timah Racecourse was not revolutionary in the development of racecourses. It followed a similar arrangement to its predecessor at Farrer Park and "*The [Bukit Timah] course was built based upon the buildings and layout of various racecourses in the region, including those in Bombay, Rangoon and Kuala Lumpur.*" [13]

Bukit Timah Racecourse's reputation as a high quality racing venue undoubtedly took a knock as a result of World War II, as did other racecourses, notably the Rangoon Turf Club course at Kyaikkasan, which has never recovered. In Singapore meanwhile, the then-Chairman, HC Reilly, said in 1947:

> *"When I visited the course in September 1945, it was a woeful sight. It was however not a time for niggardly counting of losses but for thankfulness for many mercies. One course of action and one only was clear to the Committee, and that was to get on with the work of rehabilitation."* [14]

The Bukit Timah Racecourse re-opened in November that year.

10 Tan, S. (1992) *The Winning Connection: 150 years of racing in Singapore.*
11 Op. cit. p.33
12 Op. cit. p.34
13 Op. cit. p.28
14 Op. cit. p.36

The Bukit Timah Racecourse is by default a large, open space. As such, it is distinctive as a landscape due to its size and the juxtaposition of buildings and landscaping. The racetrack is the principal element in the context of the landscape by reason of its size and distinctive shape, being a lozenge, with parallel straights and half-round ends. It is self-evidently "designed" rather than naturalistic, such as may be found at UK race courses. The geometric formality of the racetrack is reinforced by the juxtaposition of the grandstands, which are arranged to relate directly to the racetrack to afford the optimum viewpoints for racegoers. These characteristics all combine to give the site a particular distinction.

On a visit to Bukit Timah Racecourse, Mr C H Brown, of the Kalgoorlie Boulder Race Club in Western Australia described it as

> *"…very decorative, and well-planned. One does not realise how up-to-world standard it is until one sees it."* [15]

15 The Singapore Free Press 2 January 1962

North Grandstand	**Exceptional**

The North Grandstand (Figure 4.2) was designed by Charles Ho. Built in 1981 at a cost of SGD18Million,[16] it afforded the Club to expand its spectator capacity by a further 50,000 racegoers. The building is not a conserved building identified by the statutory authority of Singapore.

Architecturally, the North Grandstand is a substantial building, which is reinforced by the retained footprint of the racecourse and the spatial relationship between them to the extent that neither the grandstand nor the racecourse makes sense without the other.

The North Grandstand is of architectural significance as a notable example of Modernist architecture, where its primary function is to provide seating and shading for racegoers. The design is striking in its simplicity and scale and is the largest cantilever roof construction in Singapore.

Figure 4.2 North Grandstand in 2021

16 Tan, S. (1992) *The Winning Connection: 150 years of racing in Singapore.* P10.

Circular and cylindrical elements on the side and rear show the stylistic influence of the Japanese Metabolist school [17] which had been formed in 1960 under the mentorship of Kenzo Tange [18]. The grandstand's massive trapezoidal vertical elements hint at the heroic structures conceived by the visionary Italian architect Antonio Sant'Elia [19] who was part of the Futurist movement that originated from Italy in the early 20th century. Futurist architecture [20] was notable for its long dynamic lines which can be partially observed in the grandstand design at Bukit Timah Racecourse.

The architectural style is "muscular" with plenty of character and appears very capable of adapting to its current use without undue loss of significance. The scope for enhancing its significance lies in better spatial engagement with its immediate surroundings and improvements to servicing. For example, the use of split-type air-conditioning comprising fan-coil units and externally mounted condensers is quite disfiguring. Changing this arrangement to a centralised system would improve the presentational quality, and therefore aesthetic value, of the building.

17 The 'Metabolist School' The Metabolist school emerged from post-war Japan when the need for new housing and infrastructure grew exponentially. Emerging technologies around prefabrication and a reliance on mechanical power to construction structures that were visionary, often radical in design and execution.
18 The Pritzker Architecture Prize. (2021). Kenzo Tange. https://www.pritzkerprize.com/biography-kenzo-tange
19 The Editors of Encyclopedia Britannica. (2021). Antonio Sant'Elia. https://www.britannica.com/biography/Antonio-SantElia
20 Guggenheim. (n.d.). Italian Futurism: 1909-1914 Reconstructing the Universe. http://exhibitions.guggenheim.org/futurism/architecture/

South Grandstand	**Exceptional**

First built in 1933, the colonial style grandstand (Figure 4.3) by Messrs. Swan & Maclaren was significantly enlarged in 1956 to create symmetry either side of the clock tower and to accommodate an increasing number of racegoers. These racegoers were, however, only Turf Club members, horse owners, and high-ranking turf club staff, such as secretaries. It was not until 1960 that it was opened to the general public.

Swan & Maclaren [21] were and remain, a long-established and highly regarded architectural practice based in Singapore, with an impressive portfolio of work. This building marks the first substantial investment in the site after the topographical and landscaping works that were necessary to form the racetrack.

Figure 4.3 South Grandstand in 1950s. (Source: Mark Bailey)

21 Swan and Maclaren, founded in Singapore in 1887.

The main grandstand was constructed by United Engineers Limited [22], with joinery works by Robinson Co. Ltd [23], lifts by Express-S.M.S [24] and furniture (teak armchairs) were made in Singapore by Frankel Brothers [25].

Post-World War II, considerable investment was required to renovate the dilapidated grandstand and make good damage caused during the war. These works totalled SGD1,773,467 [26] and contributed to a significant operating deficit in the year following the recommencement of racing. The deficit was short-lived as the Club by the end of 1948 recorded a record annual turnover of SGD 15Million [27].

Since the early 1980s the grandstand has been altered regularly. Although the original steel structure has been retained, alterations have included the replacement of the clock tower, façade alterations facing the car park, addition of a new storey and roof, plus renovations in 2012 as part of the adaptive reuse. This contrasts with the later North Grandstand which has retained a higher degree of intactness.

Significant rooms within the grandstand include the Royal box and Press box.

22 United Engineers. (n.d.). About UE. https://uel.sg/about-ue/
23 London Fine antiques. (2021). Robinson & Co., Singapore. https://www.londonfine.co.uk/pages/robinson-co-singapore
24 BENO. (n.d.). A Guide to lifes in the UK. https://beno.uk/lift/express.html
25 Lisa Ginsburg. (2014). Worlds Apart in Singapore: A Jewish Family Story. https://asianjewishlife.org/pages/articles/AJL_Issue_15_Oct2014/AJL_Issue15_CoverStory_Worlds_Apart_in_Singapore.html
25 NewspaperSG. (2021). Turf Club. https://eresources.nlb.gov.sg/newspapers/Digitised/Article/morningbune19480128-1.2.121?ST=1&AT=search&k=Turf%20Club%20Reports%20$1,600,115%20Deficit&QT=turf,club,reports,1600115,deficit&oref=article
27 Newspaper SG. (2021). Singapore Turf Club. https://eresources.nlb.gov.sg/newspapers/Digitised/Article/sundaytribune19481121-1.2.21?ST=1&AT=search&K=singapore%20turf%20club&P=3&Display=0&filterS=0&QT=singapore,turf,club&oref=article

Post-independence Architecture	**Moderate**

Post-independence buildings in Singapore comprise some of its most revered structures, and ones which represent the country's modern architectural heritage. Its emergence following Singapore's independence in 1965 [28], represents a period where many Singaporean architects were liberated and able to experiment and express themselves through their work. The North Grandstand marks a break with tradition and it can therefore be seen as indicative of Independence but this may be a post-rationalisation since Brutalist architecture was pursued in Europe during a similar period.[29]

The contribution that Independence makes to the significance of the site is primarily one of following a strong trend toward the growth of horse-racing as a popular spectator sport, which has two distinct components. The construction of the North Grandstand was the physical means of accommodating that growth, which arguably adopted an architectural style that was fashionable at the time. The second is the association of this building with greater openness and democracy, that is, the transformation of the once-private members' club to a public institution that anyone could belong to. This is not to say this would have occurred anyway.

In the period just before Independence and in the years following, a large number of buildings were constructed, many of them related to residential and institutional use. Often the designs were selected through competition where the architects' idealistic vision for a new future for Singapore was given free rein.

This rapid development was supported by the Urban Renewal Program, which in 1966 – just one year after Independence - was initiated to revitalise the city [30]. Notable buildings during this time included the National Theatre (built in 1963, demolished in 1986), by Alfred Wong Partnership and the Golden Mile Complex (1974) by Design Partnership Architects.

28 Independence was declared on 9th August 1965.
29 See for example the work of Alison and Peter Smithson at Robin Hood Gardens, London, (completed 1972) and Denys Lasdun's National Theatre, London (1967-76).
30 Singapore Identity and Architecture, page 26.

Synonymous with this period of architecture, was design that gave prominence to the expression of structural elements over decorative, architectural features. In this regard, Singapore's post-independence architecture adopted an approach to design that was also seen in other parts of the world but it is clear that Independence marked a distinct shift away from the colonial genre. There was a determination to do things differently and to exploit the potential of "new" materials – reinforced concrete and large expanses of glass – and to respond to new programs in a more logical and pragmatic way. Tradition was out. The change was manifest in the comparison of Charles Ho's North Grandstand and Swan and Maclaren's South Grandstand built 50 years earlier. Although designed and completed 16 years after independence, the North Grandstand by Charles Ho is a late example of this style, and one that had continued his Brutalist style that is observed in Shaw Tower, completed earlier. In the context of examples across the city, both extant and demolished, and its date, the North Grandstand is exceptionally significant. The racecourse (Figure 4.4) including buildings were originally constructed at a cost of SGD 3Million.

Racecourse	**Moderate**

The racecourse was officially opened by Sir Cecil Clementi on 15 April 1933. The course at Bukit Timah was made possible by significant landscaping that required the existing site topography to be levelled. Some 900,000 cubic yards of earth had to be cut and moved to form embankments [31].

According to historical records [32], the race track comprised three overlapping tracks. The main track was 8 ½ furlongs, the 2nd track was one mile round, and the 3rd track was 7 ½ furlongs. The tracks were built by Fogden, Brisbane and Co. The company was incorporated on 26 Jun 1930 but was de-registered in 2008. A Toro [33] sprinkler watering system was introduced in 1976, which followed an earlier installation at the Selangor Turf Club [34].

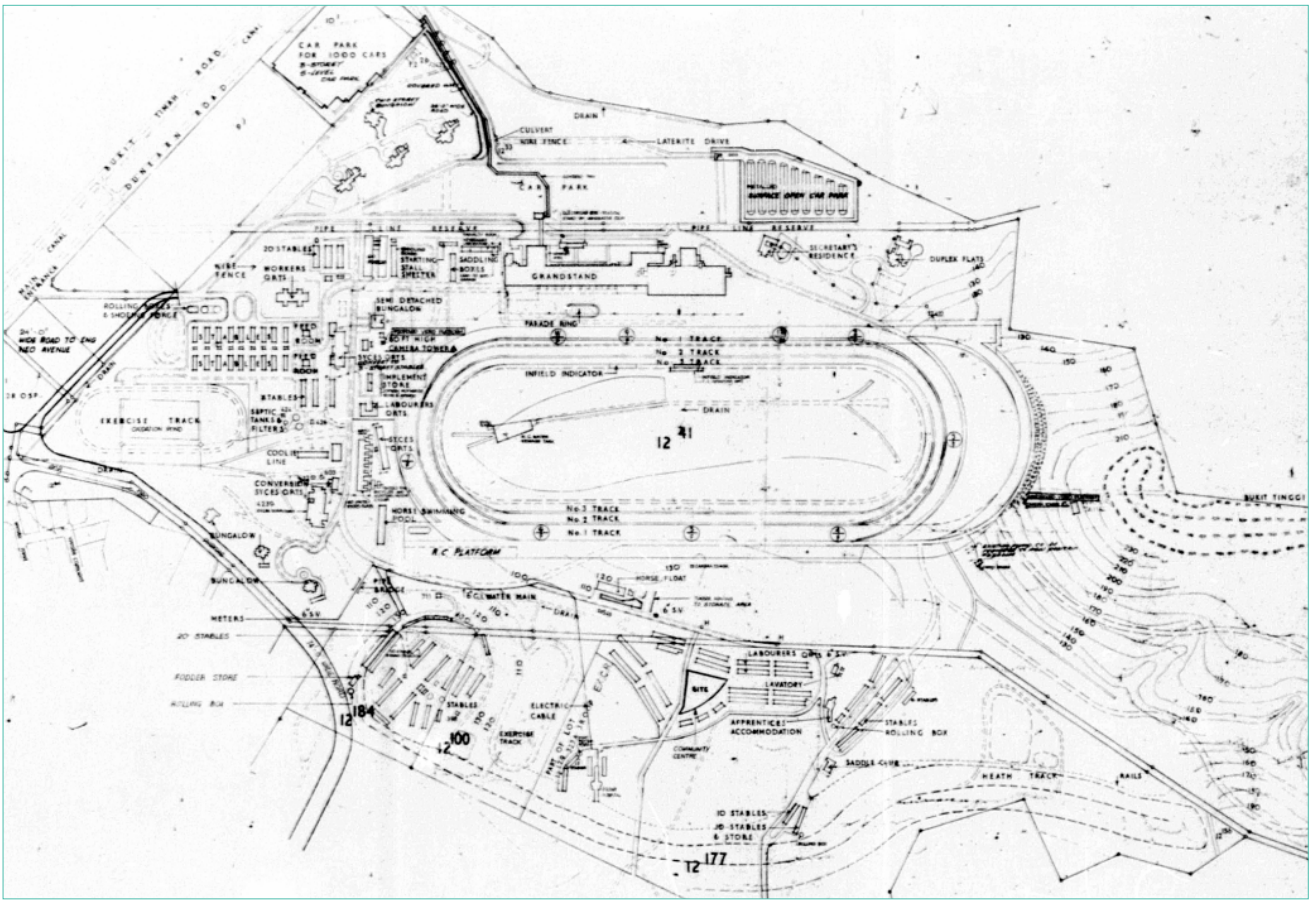

Figure 4.4 Racecourse Master Layout Plan (Source: Iversen Van Sitteren & Partners, 1981.)

31 The Straits Times, 15 April 1933, Page 21.
32 NewspaperSG. (2021). The Strait Times. https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19330415-1.2.154.6
33 Toro. (2021). About Toro. https://www.toro.com/en/about
34 New Nation, 11 April 1976, page 2.

By closer inspection of the 1963 aerial photograph (Figure 4.5) and a 1981 record plan (Figure 4.4), alterations to the racetrack that had been completed in 1977 [35] can be clearly seen. The works comprised adding a new longer track which took almost two years to build (Figures 4.6 and 4.7). Aside alterations to the track, an adjacent hill was levelled off near the 800m post adjacent to the home turn.

The original track edge and site boundary treatments were also fundamental elements in defining the track and racecourse. They are therefore significant elements.

Since 1999, the original tracks have been built over, with the inner field being adapted to new sporting facilities.

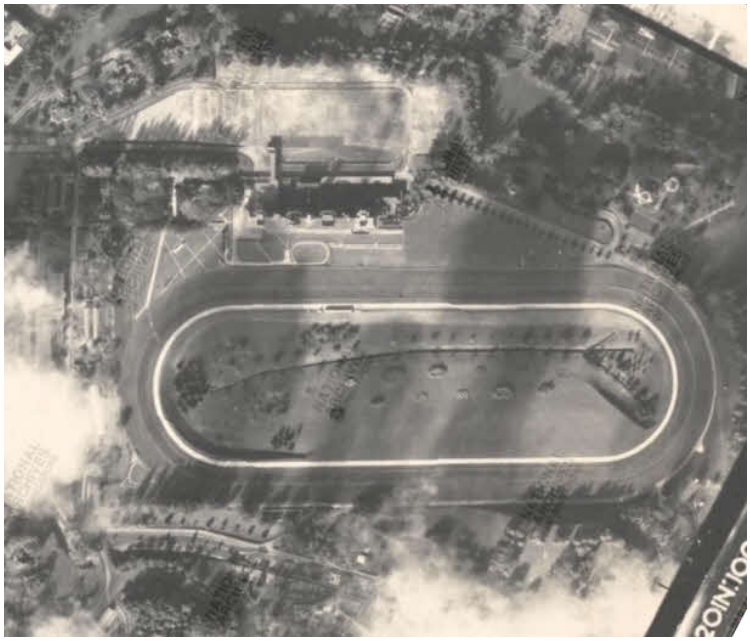

Figure 4.5 1963 aerial photo.

Figure 4.6 1993 aerial photo.

Figure 4.7 Overall view of the main track, date unknown. (Source: The winning connection: 150 years of racing in Singapore)

35 Source: https://eresources.nlb.gov.sg/newspapers/Digitised/Article/newnation19770219-1.2.24?ST=1&AT=filter&K=turf%20club%20racetrack&KA=turf%20club%20racetrack&DF=&DT=&Display=0&AO=true&NPT=&L=&CTA=&NID=&CT=&WC=&YR=&QT=turf,club,racetrack&oref=article

Traffic[36] has blighted the course from day one. At its opening, the racecourse carpark was designed to accommodate 1,000 cars. The capacity was later expanded to 2,400.[37] Accessibility within the racecourse was improved by the widening of the access roads to enable an increase in motorists arriving or exiting from the grandstands to Dunearn Road and Bukit Timah Road, but this did little to address the issues of long delay before and after races (Figure 4.8).

Figure 4.8 Traffic on race day – date unknown (Source: The Winning Connection, Page 134)

36 The traffic congestion is a useful measure of the popularity of horse racing.
37 170 Years of Racing. In Numbers, p.12

Support Facilities	**Moderate**

The plethora of other buildings chart the development of the site during its operational life as a racecourse. The site plan (Figure 4.9) illustrates the evolution of the site. The architectural significance of these buildings varies, see Figure 4.25.

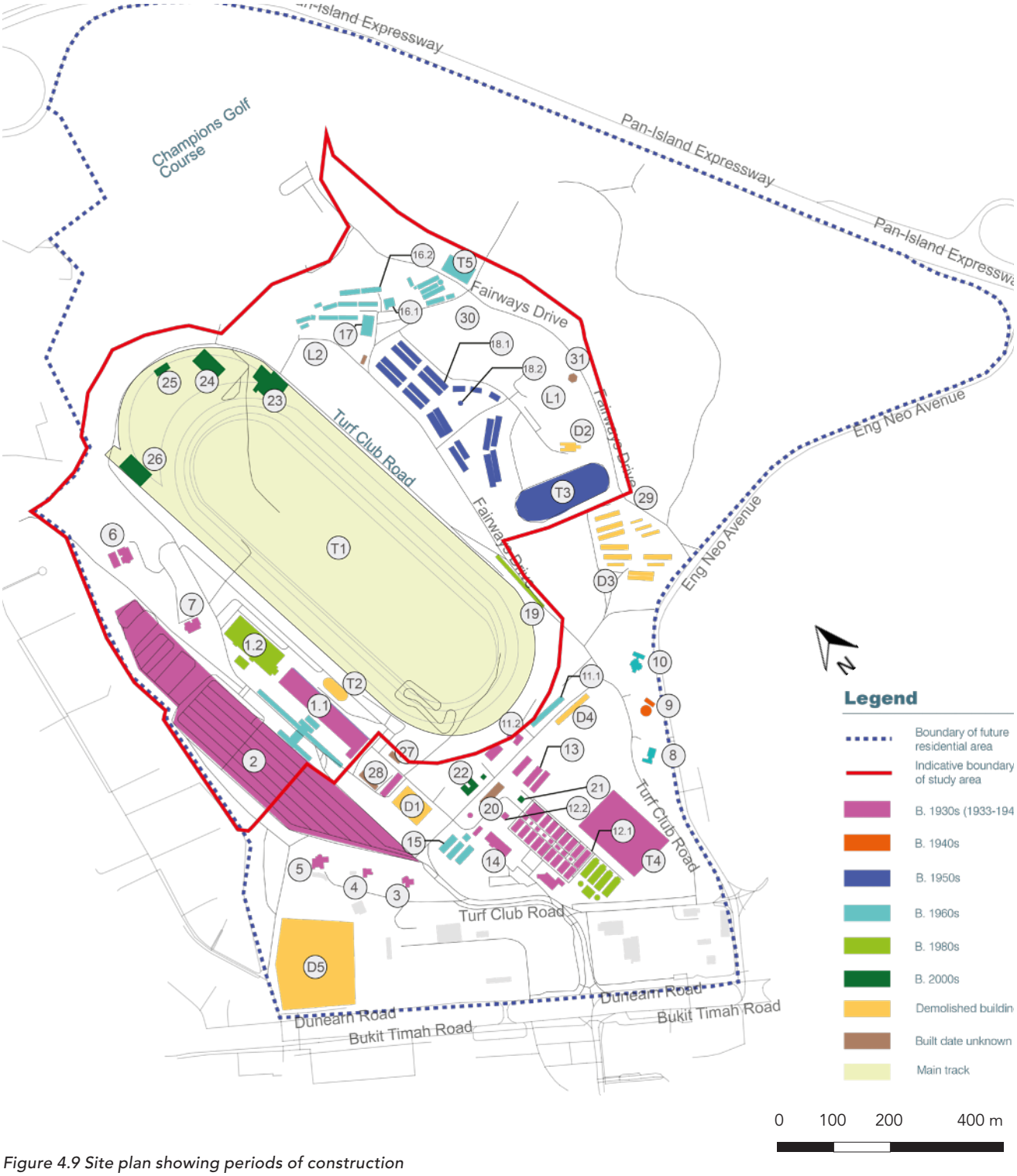

Figure 4.9 Site plan showing periods of construction

The residential buildings are substantial residences, some of which remain in use for that purpose (Building Nos. 7 to 10), whereas others have been adapted to new uses including day care facilities (Building No. 3), treatment centre (Building No. 4) and a preschool (Building No. 5).

Building Nos. 3 (Figure 4.10), 4 and 5 (Figure 4.11) are a series of 1930s two-storey bungalows which appear to be influenced by contemporary Modernism in Britain, typically seen in seaside villas, through the strong horizontality, curved forms, and bands of windows. Features on the building have been adapted to suit the climatic conditions in Singapore including louvred windows and horizontal canopies to provide shading. This can be seen clearly in the comparison shown in Figure. 4.10 to 4.11 below.

Top: Figure 4.10 Building No. 3
Bottom: Figure 4.11 Building No. 5

Top: *Figure 4.12 Example in Frinton, UK.*
Middle: *Figure 4.13 Example in Penarth, South Wales, UK. Source: Wowhaus. (n.d.). 1930s art deco proejct. https:/www.wowhaus.co.uk/2018/12/02/1930s-art- deco-renovation-project-in-penarth-cardiff-south-wales/*
Bottom: (left) *Figure 4.14 Example in Brixham, Devon, UK. Source: The Modern House. (n.d.) Sunpark. https://www.themodernhouse.com/past-sales/sunpark/*
Bottom: (right) *Figure 4.15 Example in Aberystwyth, Wales, UK. Source: This is Money. (2014). Don't despair. https://www.thisismoney.co.uk/money/mortgageshome/article-2541177/Dont-despair-water-damage-neednt-long-term-impact-value-home.html*

Building No. 6, which was the Secretary's Bungalow (later converted into duplex flats) (Figure 4.16) on the other hand is more conservative, with limited acknowledgment of the climate but it does have a pitched roof and broad eaves, yet fails to exploit the glorious vantage point overlooking the racecourse, for example by the use of generous glazing. The layout and the architectural design of No.6 matches the typical functions of "duplex flats"; for example, the external staircase was designed for the second-floor occupants to go upstairs without entering the ground floor unit.

Figure 4.16 Building 6

Building Nos. 7 (Figure 4.17) and 14.1 (Figure 4.18), are examples of 1930s vernacular bungalows with tropical design influence. Building No. 7 was the Deputy Secretary's residential accommodation, with Building No. 14.1 being the Workers' Quarters for employees of resident trainers.

Figure 4.17 Building 7

Figure 4.18 Building 14.1

Building No. 16.1 (Figure 4.19) was originally designed to accommodate the Bukit Timah Saddle Club (BTSC). BTSC was set up in 1951 as a centre to re-train retired horses for events such as show jumping and dressage [38]. The club is a surviving tenant at the former racecourse and continues to be one of the leading equestrian centres in Singapore. It has over 40 trained horses and ponies; 100 loose boxes across 10 blocks; 13,000sq. metres of riding arenas; paddocks, shower and changing facilities for members and guests; as well as an equipment shop and food and drink facilities [39].

Several secondary but significant buildings and facilities have been demolished in recent years. These include:

- Paddock Block (D1),
- Equine Hospital (D2),
- Stables (D3)
- Equine pool (D4)
- Parade Ring (T2)

Originally the site was designed to accommodate 250 horses but through various phases of expansion, the capacity grew to 700 horses [40].

The loss of a number of equine buildings, and of course the racetrack, have combined to reduce the degree of intactness substantially, with a consequential impact on the site's contextual value.

Figure 4.19 Building 16.1

38 Bukit Timah Saddle Club. (2019). History of Bukit Timah Saddle Club. http://btsc.org.sg/about-us/history/
39 Bukit Timah Saddle Club. (2019). Facilities.. http://btsc.org.sg/about-us/facilities/
40 Tan, S. (1992). *The winning connection: 150 years of racing in Singapore.* P9; Singapore chronicles: A special commemorative history of Singapore. (1995). Hong Kong: Illustrated Magazine, p. 166. (Call no.: RSING 959.57 SIN-[HIS])

4.2 Historical Value

Singapore Turf Club (STC)	**Exceptional**

History of racing

Racing origins in Singapore date to 1842 thanks to the enterprise and enthusiasm of William Henry Macleod Read, a merchant, and a group of sporting enthusiasts, who founded the Singapore Sporting Club on 4 October that year. The fact that Macleod Read was a merchant is perhaps significant, Singapore having been founded by Stamford Raffles as a trading post barely a generation earlier. Such was their enthusiasm, the founders had built a grandstand and a racetrack on what was swampy ground which later became the Farrer Park Sports Complex. This initiative kick-started the development of horse racing in Singapore and transformed a previously unusable area of ground into something of high amenity value. The first race meeting was held on 23 – 25 February 1843, to mark the 24th anniversary of the founding of Singapore. This ties the establishment and development of horse racing and Singapore very directly, and it indicates the growing prosperity of the place given the substantial cost of racing horses and the ability and desire of punters to gamble on the races.

The narrative of the middle decades of the 20th century show that the STC and Bukit Timah Racecourse were substantial players who were part of a close network of turf clubs in the region, which manifested itself in forms of regulation, resourcing of race meetings and above all, a passion for racing. Soon after the SE Asian turf clubs had founded – Singapore (1842), Perak (1884), The Hong Kong Jockey Club (1884), Selangor and Penang (both 1986), the desire for regional coordination was established:

> *"On 7 January 1896, the Straits Racing Association was formed to coordinate racing in Singapore, Kuala Lumpur, Penang and Ipoh."* [41]

The SRA was later known as the Malayan Racing Association, which still exists today.

In order to capitalise on the demand for betting opportunities across the region (and presumably to even up the statutory rules applying to gambling): *"In 1961, cross-betting between the Club and the three racing clubs in Malaysia was started."* [42]

41 Op. cit. p.25
42 *Op. cit. p.11*

The significance of the appointment of Runme Shaw to chairmanship was likely not limited to his particular charisma, since social progression had begun many years earlier:

> *"For the first 25 years, horse racing was confined to Europeans and the Malay Royalty. Slowly, the increasingly wealthy Chinese community took an interest in the sport."* [43]

Chinese business people soon caught on to the kudos to be obtained by sponsoring trophies.

Development of the industry clearly benefited from the "weight" afforded by STC and its racecourse at Bukit Timah. [44] In terms of resourcing the race meetings, a regional approach was clearly evident:

> *"By the end of the [nineteenth] century….riders… began taking part in races at the different centres. Horses were moved by coastal steamers, trains and, much later, lorry floats."* [45]

And somewhat later:

> *"Most of the jockeys riding in the local circuit in the 1930s were from Australia."* [46]

The construction of the racetrack at Bukit Timah marked a substantial investment in horse racing. Some SGD 3Million was spent on building the new facilities and was later described as "*the finest in the East*"[47]. It was opened by the then Governor of Singapore, Sir Cecil Clementi, in 1933.

Bukit Turf Club was subsequently established in March 1988 [48] when it took over racing and Four-Digit draw operations. The Singapore Turf Club had been dissolved earlier in the month. After the Singapore Totalisator Board ("Tote Board") was set up by the Government to oversee the operations and income of horse racing and totalisator betting, Tote Board appointed the Bukit Turf Club as its agent to take over from the Singapore Turf Club in 1988.

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43 *Op. cit. p.24*
44 The crowd capacity at Bukit Timah was larger than its contemporaries and approximately double that of its successor at Kranji.
45 Op. cit. p.25
46 Op. cit. p.30
47 Tan,S. (1992) *The Winning Connection – 150 years of Racing in Singapore.* P10.
48 Tan. (n.d.). Singapore Turf Club. https://eresources.nlb.gov.sg/infopedia/articles/SIP_136_2004-12-30.html

Ownership of STC

The purpose of the new Act [49] was reportedly "*…to control, income from horse racing and the four-digit draws amounting to over $30million annually*". In effect this brought the Club into public ownership.

The STC simultaneously operated as a profit-making body for the benefit of its (restricted) membership whilst also functioning as an agent of the regulatory authority (the Tote Board). It was a highly successful business model that had over the years contributed considerably to charities and other good causes.

The Singapore Totalisator Board Act came into effect on 1 January 1988, which was soon to have substantial implications for the STC. The STC's role as regulator on behalf of the Tote Board was transferred to the Bukit Turf Club, which among other things ushered out the exclusivity that had applied to membership hitherto and replaced it with a non-restricted membership.

Naming of STC

In respect of the Club identity, the original Club, the Singapore Sporting Club was renamed as Singapore Turf Club in 1924. During the late 1980's, the Tote Board renamed the club as the Bukit Timah Turf Club [50]. In 1994, the name "Singapore Turf Club" was reinstated.

49 The Singapore Totalisator Board Act, 1988.

50 NewspaperSG. (n.d.). Turf Club. https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19880407-1.2.61?ST=1&AT=search&k=turf%20club%20record%20entries%20stakes%20profit&QT=turf,club,record,entries,stakes,profit&oref=article-related

Role during World Wars	**Moderate**

The original racecourse at Farrer Park was used to raise money for the war effort during World War I. A total of SGD78,000 was donated by STC, alongside a further SGD198,000 raised through lotteries[51].

With the area falling to Japanese occupation on 11 Feb 1942, racing stopped. Bukit Timah Racecourse was a strategically important site to the Japanese due to its natural terrain. As a hill, it provided a look out over downtown Singapore. The main water catchment area was also located here.

The Japanese put down most of the stabled horses, but thoroughbred horses were shipped to Japan[52]. Changes made at Bukit Timah Racecourse included the grounds being trenched and filled with obstacles to prevent Japanese planes from landing. The South Grandstand was used as a hospital first by the British military, then the Japanese during their occupation. Under the Japanese, the stables and workers' quarters were used as military car parks. After liberation, the site was a military transit centre.

Racing finally resumed on 25 November 1947 following a programme of repair works to the racecourse (see Figure 4.20), grandstand (see Figure 4.21), and other buildings. The club was also able to re-engage many of the staff from the pre-war years. Bukit Timah Racecourse benefited from an attitude of considerable determination in the post-war years, as did many places around the world after the defeat of the Axis powers and the end of hostilities.

The immediate post-war years perhaps also created another kind of determination – one of enjoyment. Upon its reopening in 1947, Club membership was in high demand: "A small army of clerks worked overtime daily to cope with the flood of applications. There were so many fresh ones that the Committee had to put a stop to further applications. Hotels reported heavy bookings for hundreds of visitors from Malaya…"[53]

In summary, historical value derives from the association with the site's appropriation as a military hospital, first by the British and latterly the Japanese. Post-liberation, it was used as a transit camp.

51 Singapore chronicles: A special commemorative history of Singapore. (1995). Hong Kong: Illustrated Magazine, p. 166. (Call no.: RSING 959.57 SIN-[HIS]; Tan, S. (1992). *The winning connection: 150 years of racing in Singapore*. P9.

52 Singapore Chronicles

53 Tan, S. (1992) The Winning Connection: 150 years of racing in Singapore. P37.

Figure 4.20 Post War view of racecourse. (Source: Mark Bailey)

Figure 4.21 Post War view of South Grandstand. (Source: Mark Bailey)

Bukit Timah Racecourse	**Moderate**

The 1st generation racecourse was constructed in 1843 at what is Farrer Park today. With the original course unable to match the growth in popularity of racing, the 2nd generation racecourse was commissioned. A W Vick and G R Holden Webb were instrumental in this and in finding the land on the Bukit Timah Rubber Estate, which was part of the wider Chasseriau estate. The racecourse design was based on other courses that existed at the time in Bombay, Rangoon, and Kuala Lumpur. The course at Bukit Timah took 6 years to construct from 1927 to 1933, with the first race being held on 15 April 1933. The racecourse therefore has both historic and social significance.

The racecourse was extended in the early 1950s when the Club purchased 30 ha of land along the eastern boundary of the site. The then chairman, Mr H.C. Reilly said:

> *"the Eastern boundary of the club's property was too close to the racetrack and such proximity might sometimes prove a handicap as the land might be developed in a manner injurious to the Club interests and the welfare of horse'.* [54]

While the position of the racetrack has remained the same, the last major alteration to the racecourse was the addition of the North Grandstand in 1981. At its peak, the South and North Grandstands could accommodate up to 60,000 spectators and was run by 550 permanent staff, with an extra 900 temporary staff on race days.

Although the racecourse (Figure 4.22) is no longer in use, and despite the loss of the race tracks themselves, the layout can still be partially understood by the configuration of Turf Club Road. The inner field can also still be perceived despite the growth of the trees and alterations and redevelopment of the infield as a sports academy.

Many of the support buildings such as stables, paddocks, the equine hospital, and the Parade Ring (T2) have been demolished. The Exercise Rings (T3 and T4) still survive.

The grandstands were converted to new use in 1999, when they were reopened under the name, 'Turf City Mall'. In 2012, the current tenants, Cogent Land Capital rebranded the structures as 'The Grandstand'. The current use is primarily commercial spaces and offices.

Despite the retrofitting works associated with the conversions to new uses, the buildings have retained their architectural integrity. Further work to remove adverse elements, such as ill-considered service routes, and to make good elements of the external features, particularly the footprint of the racetrack, should be considered. This would help to re-establish the spatial relationships between the primary buildings where they are missing and to reinforce those that have been detrimentally affected by adaptations. This should be in the form of interventions to suit future development in a way that conveys an echo of the former and original use.

54 The Singapore Free Press, 22 April 1950, Page 8

An Exercise Ring built for the Bukit Timah Saddle Club (T5) remains in use today. It hosted the 12th Southeast Asian Games Equestrian Dressage Competition in 1983 [55].

In 1993, plans were published that indicated that of the 1732 ha of land that comprised the Bukit Timah Planning Areas, 1117 ha was allocated for residential land use.[56] A further plan for the site was produced in 1998 which outlined the site for residential use [57]. However, the plan proposals were not implemented. Instead, facilities at Bukit Timah Racecourse were repurposed and put to interim use. Under the title, Turf City, the grandstand buildings were converted and re-opened to the public in 1999. While only having an initial 10-year lease, the leases have been periodically extended. On 30th September 2021, the Singapore Land Authority and the Urban Redevelopment Authority confirmed a final lease extension will be granted until the end of 2023, after which, tenants will have to vacate the site as agencies plan preparation works for future residential development at the site.[58] Ahead of this, BTSC will return a portion of land to facilitate future transport infrastructure works.

Figure 4.22 View of infield from North Grandstand

55 Wikipedia. (2020). Equestrain at the 1983 Southeast Asia Games. https://en.wikipedia.org/wiki/Equestrian_at_the_1983_Southeast_Asian_Games

56 Bukit Timah Planning Area Planning Report. Urban Redevelopment Authority, Singapore, 1993 p.14. https://eresources.nlb.gov.sg/printheritage/detail/a6df00f7-dc31-451d-8520-700e8a140b85.aspx

57 Afifah Darke. (2021). Turf Club tenants given final lease extension until end of 2023. https://www.channelnewsasia.com/singapore/turf-city-tenants-lease-extension-2023-residential-development-2212961

58 Afifah Darke. (2021). Turf Club tenants given final lease extension until end of 2023. https://www.channelnewsasia.com/singapore/turf-city-tenants-lease-extension-2023-residential-development-2212961

Contribution to Sports Racing	**Moderate**

Racing in Singapore

The first race at the Farrer Park racecourse was on 23 and 25 February 1843. The races took place to coincide with the 24th Anniversary of the founding of Singapore by Sir Stamford Raffles.

STC as a sporting institution quickly became an integral part of the regional horse racing scene. As reported in the Singapore Free Press and Mercantile Advertiser 12 November 1895, STC agreed to join the Straits Turf Club, which would align operational matters and thereby apply consistency across the industry on a regional basis. From 7 January 1896 the STC would be associated with several clubs across Southeast Asia as noted in section 3.1.

Reports at Annual General Meetings during the 1920s show increasing growth despite economic depression, which was sustained through to the 1950s even though events were suspended during WWII. By the mid-1950s income from stake money dipped across the region whilst the costs of owning a horse continued to rise, though the Bukit Timah Turf Club was the best performer among the Malaysian clubs [59].

Racing at the outset was principally a recreation affair for Europeans and Malay Royalty. Jockeys were largely the owners. Horses were mainly Java Ponies [60].

In 1896, with the formation of the Straits Racing Association (now the Malayan Racing Association [61]), horse racing became a professional sport, with official rules, control, and regulation.

In 1913, a Betting Ordinance was passed as a measure to oust illegal bookmaking.

In 1947, racing recommenced following the end of WWII. The sport continued to grow and in 1960, attendance at race meetings was opened to the public, who were able to attend at the time for an entry fee of SGD5.

A notable visit by the Royal Family happened in1972, with attendees including:

- Elizabeth II, Her Majesty the Queen
- Prince Phillip, His Royal Highness Duke of Edinburgh
- Anne, Princess Royal

59 The Straits Times 5 January 1958
60 Livestock of the World. (n.d.). About Java Pony Horses. https://www.livestockoftheworld.com/Horses/Breeds.asp?BreedLookupID=2638&SpeciesID=5&Screenwidth=960
61 Malayan Racing Association. (n.d.). Welcome to Malayan Racing Association. https://www.malayan-racing.com/

The Royal Family watched the inaugural Queen Elizabeth Cup with Mr & Mrs Runme Shaw with prize money of SGD35,000. This 1st race was won by the world-famous British professional Jockey, Lester Keith Pigott, OBE (Figure 4.23), on the horse *Jumbo Jet*, a New Zealand gelding. Lester Pigott also later won the Singapore Derby in 1979 on the horse *Saas* Fee.

The racing calendar at Bukit Timah Racecourse included six major thoroughbred [62] races:

1. Singapore Gold Cup
2. Singapore Derby
3. The Raffles Cup
4. The Lion City Cup
5. The Queen Elizabeth II Cup
6. The Pest Sukan Cup

Racing internationally

In 1843 when racing was first introduced in Singapore, the sport was already prominent in the United Kingdom, the United States, India and Australia. By the time the racecourse at Bukit Timah was constructed, there were already other notable courses in the region, including those in Hong Kong, Rangoon, and Kuala Lumpur.

Figure 4.23 Queen Elizabeth II congratulating Lester Piggott in 1972 (Source Ministry of Information and the Arts (MITA))

62 Thoroughbred horses date back to circa 1174 in England [expand] https://en.wikipedia.org/wiki/Thoroughbred

The establishment of the STC was pre-dated by The Royal Western India Turf Club (founded in 1800) and The Bombay Turf Club (formed in 1802), which the latter became known as the Western India Turf Club. Racing was initially at Byculla until 1883, but then moved to Mahalakshmi. Rangoon Turf Club was later founded in 1887. There had originally been a racecourse at Maidan, but the Club moved in 1926 to Kyaikkasan. Later still was the Sengalor Gymkhana Club [63] which was established in the early 1890s. It was renamed Sengalor Turf Club in 1896. At this time the course was called Jalan Ampang. The course would later move in 1993 and was named Sungei Besi Racecourse.

The Hong Kong Jockey Club was founded in 1884 and has gone on to establish itself as one of the world's premier racing organisations and is a major employer [64] and source of charitable donations[65] in Hong Kong. Racing in Hong Kong began at a course in Happy Valley in 1846 which continues to this day, and it became a professional sport in 1971. Due to the success of racing, the Hong Kong Jockey Club opened a second racecourse at Shatin in 1978.

Further afield, racing origins in Australia date from 1810 [66], when European settlers first landed there. The first official horse race was held at Hyde Park in Sydney, New South Wales. The first club in Australia, The Sydney Turf Club was later formed in 1825. In 2011, the STC merged with the Australian Jockey Club (formed in 1842), to form the Australian Turf Club. Racing reached other states including Victoria in 1838 [67] where race meetings were held in Melbourne.

By contrast, racing in Great Britain is thought to have originated in 200AD.The first notable club, The Jockey Club, was established in 1750 [68]. In the United States, racing dates from 1665 and the first course was created at Salisbury, New York. The American Jockey Club was established in 1894 [69].

Amateur racing also featured for a time at Bukit Timah. This proved popular whilst also offering horses close to retirement an opportunity to continue racing in a less competitive format [70].

When considering Bukit Timah Racecourse / Singapore Turf Club in a regional and/or worldwide context, it for a long time set the benchmark for improvements within the Malaysian [71] racing industry. Its significance is therefore higher at a regional level compared with the global context.

63 Selangor Turf Club. (2021). History. https://www.selangorturfclub.com/corporate/history/
64 The Hong Kong Jockey Club. *The Charities Trust.* Source: https://charities.hkjc.com/charities/english/charities-trust/index.aspx
65 The Hong Kong Jockey Club. *How We Work.* Source: https://corporate.hkjc.com/corporate/english/how-we-work/index.aspx
66 The Australian Racing Report. (2021). Australian Horse Racing Early History. http://www.australianracingreport.com/history_racing_nsw.html#:~:text=NEW%20SOUTH%20WALES%20%2D%20Sydney's%20first,a%20racecourse%20in%20January%201833.
67 eMelbourne. (n.d.). Horseracing. https://www.emelbourne.net.au/biogs/EM00722b.htm
68 Wikipedia. (2021). Horse Racing in Great Britain. https://en.wikipedia.org/wiki/Horse_racing_in_Great_Britain
69 Wikipedia. (2021). Horse Racing in the United States. https://en.wikipedia.org/wiki/Horse_racing_in_the_United_States
70 The Jockey, June 1980
71 The Singapore Free Press, 11 August 1947, Page 7

Equestrianism	**Moderate**

The licensing in 1981 of the first female jockey was a progressive development for women in sport. The first occasion is a notable historical event; however, the primary significance lies in the social significance that permitted women to compete on equal terms with men. Despite considerable improvement in the recognition of women in sport, racing remains one of very few where women and men compete together.

According to Mr Jegadesan Mukayah Pandaram, who was a maintenance manager:

> *"STC started the Star Academy in 1980 at the Bukit Timah then at Kranji racetracks to train locals (Ex-NSF) to become Syces, Jockeys, Horse-riders and Blacksmith. It also hired trained personnel as track staff from CUGE and Polytechnic".* [72]

Although the academy moved to Kranji, the connection with equestrian use on the site remains through BTSC who continue to run a successful club offering its members well trained horses and ponies and the use of facilities such as the Exercise Ring (T5) for horse training and competitions across events such as dressage and show jumping.

72 Singapore Memory Project. (n.d.). Beginnings of Singapore Turf Club. https://www.singaporememory.sg/contents/SMA-eda026bb-1c9b-452f-9d5f-1e4c710387fc

Association with organisations and individuals	**Low**

The Bukit Timah Racecourse is associated with the following notable people who were involved in the development and expansion of racing in Singapore:

William Henry Macleod Read [73]

Macleod Read led a group of sporting enthusiasts in the establishment of Singapore Sporting Club on 4 October 1842. Within just five months, a grandstand and track had been established at the first racecourse, at Farrer Park. William was a partner in the merchant firm of A L Johnston and Co. Macleod Read also founded the Sailor's Home and organized Singapore's first rowing regatta. [74]

A W Vick and G R Holden Webb

Both held the chairmanship position around the time the racecourse at Bukit Timah was constructed. However, both had departed Singapore before the course opened in 1933.

H C Reilly

Reilly led the two-year rebuilding and reopening of the course after WWII.

L.J.C Bailey

Bailey was the secretary of STC from 1948 to 1961 when it was a private club. His duties included managing racing laws. STC during this period was largely run by a committee formed mostly of Scottish expatriates who oversaw running STC as a business.

Lim Chong Pang

During the 1950s, Lim Chong Pang led Chinese interest in racing. He was himself a successful horse owner, running his own stables – Hennessy Stables [75].

73 Vernon. (n.d.). William H. Read. https://eresources.nlb.gov.sg/infopedia/articles/SIP_138_2005-01-22.html
74 Ralph. (2020). History of Gambling in Singapore. https://www.onlinecasinosg.com/history-of-gambling-in-singapore-from-the-colonial-period-to-independence/
75 Singapore Chronicles.

Tan Sri Runme Shaw

Chairman and Founder of the Shaw Organisation (Singapore). Runme Shaw was the first Asian chairman of STC. This showcased the social progressiveness of STC. Later his nephew, Shaw Vee Meng would be a prominent committee member of STC. Other notable committee members included, Loke Wan Tho, Tan Sri Tan Chin Taun and Rajabali Jumabhoy.

As Chairman of STC for 19 years, Runme Shaw turned the 'sport of kings' into a major source of funds for cardiac, cancer, liver and paediatric medical research, homes and orphanages, hospitals, and associations for the disabled.

It was also his tenure at STC that Runme cultivated his love of horses particularly racehorses. He owned some 70 thoroughbred stallions, each of whom he named after his cinemas. These horses have won practically every major race in Singapore.

During his tenure as the Chairman, Queen Elizabeth II and Duke of Edinburgh Prince Philip visited the Turf Club in 1972. Singapore Queen Elizabeth II Cup was introduced in 1972 to mark the State visit to Singapore by Her Majesty The Queen Elizabeth II. A capacity field of 20 top-class stayers lined up for the race run at Bukit Timah, and was won by *Jumbo Jet* ridden by jockey Lester Piggott.

Runme Shaw was also instrumental in the development of STC in the early 1980s with the building of the North Grandstand and other facilities. Shaw's time at the helm was highly successful. The confidence placed in him to lead STC demonstrates a genuine commitment to equality of opportunity at a time when racial prejudice was still a commonplace.

Racing Figures

As a long-standing racing institution there are several prominent individuals and organisations who have been associated with the place that are of importance, not only in Singapore, but world-wide. In particular:

- Lester Pigott, OBE [76] (arguably the most significant international jockey to ride at Bukit Timah).

76 Lester Piggott, OBE, is former English Jockey who amassed 4,493 career wins and British Flat racing champion 11 times across a period of 1960 to 1982. His wins included 9 Epsom Derbies, 6 Oak, 8 St Leger, 2 1000 Guineas and 5 2000 Guineas victories. In addition to his profile success in the Great Britain and Ireland, he also rode successful races across Europe, including France, Germany, and Italy, and further afield in Singapore and the United States.

Architects

Swan & Maclaren (South Grandstand)

Swan & Lermit as originally known, was formed in 1887. Following the withdrawal of Lermit from the partnership in 1890, Swan (Archibald Alexander Swan) & Maclaren (James Waddell Boyd Maclaren) was established in 1892. As the oldest architectural practice in Singapore, by the time the South Grandstand was designed, they had already designed several colonial landmarks, including Raffles Hotel (1899) and Victoria Memorial Hall (1905). Another of the key architects in the practice and who was involved the design of the grandstand was the English born, Regent Alfred John Bidwell.

Charles Ho (North Grandstand)

Charles Ho, a Singaporean architect, and his partner Low Yew Kee had in 1970 bought out the firm, Iversen Van Sitteren & Partners (IVSP). IVSP had originally been founded by Berthel Michael Iversen in 1936, together with the architect S.H van Sitteren. IVSP had offices across Malaysia including Singapore, Penang, and Kuala Lumpur.

Despite the buyout, Ho continued to run the practice in Singapore under the original registered business name. Prior to completion of the grandstand in 1981, Ho had designed other notable Singapore landmarks including the 'Brutalist' icon, Shaw Tower, which opened in 1976.

Ho's wife, Lesley, was not known at all except for her role as a director of the Singapore International Film Festival from its inception in 1987 to 2007 [77]. She was Australian and trained as a Landscape Architect. She (re)designed the landscape at the South Grandstand.

77 Yip, W.Y. (2017). Former Singapore International Film Festival director Lesley Ho dies of cancer, aged 77. https://www.straitstimes.com/lifestyle/entertainment/former-singapore-international-film-festival-director-mrs-lesley-ho-dies-of

4.3 Communal and Social Value

Horse Racing	**Moderate**

In his Foreword to the commemorative book *The Winning Connection – 150 years of Racing in Singapore*[78], the Chairman of Bukit Timah Turf Club, E W Barker, said:

> *"Horse racing has carved a special and important niche in the world of sport. The compelling drama, colour, exhilaration and sheer beauty of the Sport of Kings has fired the imagination and captured the hearts of millions of racing enthusiasts around the world. Its appeal knows no boundaries." "Today, Bukit Timah Racecourse ranks as one of the finest racing complexes in the world."*

The following is a summary of major development including prize money, race meetings and trophies[79]:

Singapore Gold Cup (2,200 metres), 1924-now (except 1942-1947)

- The jewel in the crown of the local turf.
- The first Singapore Gold Cup was run on 18 October 1924, at Farrer Park Racecourse and carried a prize of $1,600.
- Over the years, prizemoney for the Singapore Gold Cup has risen dramatically. From $1,600 in 1924, it went up to $61,500 in 1973.
- The Singapore Gold Cup was sponsored for the first time ever in 1991. Piaget, the renowned Swiss manufacturer of luxury timepieces, sponsored $200,000 of the total prize money of $600,000. The 1992 Piaget Singapore Gold Cup will be worth an all-time high of $700,000.

Singapore Derby (2,400 metres), 1959-now

- One of the oldest feature races on the local turf. Longest race at Bukit Timah Turf Club.
- The first Singapore Derby was run in 1880. Prize money was $150. The race was contested by ponies from China.
- The club revived the Singapore Derby in 1959 after an absence of 49 years. The prize money was $15,000.
- The 1984 winner Win-Em-All, ridden by English jockey Jim Bleasdale, clocked a record time of 2:27.6, which remained unbroken.

78 Tan, S. (1992) *The Winning Connection: 150 years of racing in Singapore.* Foreword
79 All extracts from *"The Winning Connection: 150 years of racing in Singapore".*

Lion City Cup (1,200 metres), 1974-now

- Introduced in 1974.
- Prize money for the race was given a big boost in 1990 when it was raised to $250,000, making it the richest sprint in the local circuit.
- The Lion City Cup started as a handicap race but since 1991 has become a weight-for-age event.

Raffles Cup (1,600 metres), 1991-now

- Introduced in 1991 and held annually in November.
- The distance was altered from 1,600 to 1,800 metres in 2001.
- The original prize money was $250,000, whereas it was $500,000 in 2021.

Queen Elizabeth II Cup (2,000 metres), 1972-now

- Inaugurated in 1972 to mark the State visit to Singapore by Queen Elizabeth II. Ran over the same distance as the Singapore Gold Cup.
- The winner was the all-conquering Jumbo Jet ridden by Lester Piggott.
- The total prize money for the Cup was then $36,000.
- The race was sponsored for the first time in 1989. It was worth a total of $200,000 in prize money (the sponsor contributed $100,000).

Pesta Sukan Cup (1,400 metres), 1970-1993 (Silver Cup came in)

- Introduced in 1970 as a staying race, then was shortened to a middle-distance event and since 1991, it became a sprint.
- In 1981, Australian Irene Pateman created history by becoming the first woman jockey to win a major feature race when she captured this Cup astride Pegasus II.

Singapore St Leger (1 ¾ miles), 1952-1964

- It was a true test for out-and-out stayers. But the St Leger was such a taxing race that there was always a lack of entries

Racing was evidently very popular despite the cost of owning a horse, particularly a thoroughbred. At the same time, racing was readily adaptable to gambling, which made it attractive to people of all walks of life who were looking to have "a flutter" on the horses. Others, presumably, were content to enjoy the spectacle of it all.

Despite the heroic words of the Turf Club Chairman in 1992, the site closed just seven years later, and horse racing continued at Kranji. The driver for the move appears to have been the operational problems associated with the Bukit Timah site. It would be reasonable therefore to conclude that the move to Kranji in 1999 was a positive development at least in the sense that publicly accessible horse racing was able to continue to thrive.

Gambling

In Singapore, the regulation of racing began with the formation of the Straits Racing Association in 1896, latterly the Malayan Racing Association (MRA). In 1913 the Betting Ordinance further regulated gambling.

The development of organized games and 'field sports' such as horse racing brought the focus of attention first to the Esplanade and then, additionally, to the racecourse. The first cricket match was held on the Esplanade before 1837. The 'sport of kings' followed shortly after, when in 1842 the Singapore Sporting Club was founded to promote horse racing and trading. Horses were very important as a means of transport and as a source of recreation and entertainment. The first racecourse at Farrer Park was originally a wide stretch of swampland - an area that was also dedicated to rifle practice. The Sporting Club thus became the first institution to promote sporting activities. Significantly, the constitution of the Sporting Club also permitted the involvement in club events of the more wealthy Chinese animal owners. Riders and trainers likewise made their way to the Sporting Club from around the region. Men of material wealth or social standing, including Chinese towkays[80], dictated the scale and nature of the activities. The only people with regular opportunities to participate actively were the Europeans and the wealthy Chinese. Seasonal race meetings organized by the Sporting Club featured the "Governor's Cup", the "Celestial Plate" and the "Singapore St. Leger". In Hong Kong, Manila, and Saigon the pattern was similar. The wealthier and more influential Chinese such as Hoo Ah Kay (better known as Whampoa) became involved through ownership of horses. The influential citizens and officials decided who should be included within the convivial confines of the early clubs. They created their own rules, and administered their own events.

Up to 1999, legalised gambling in Singapore was limited to horse racing conducted by STC, the Singapore Sweep lottery and 4D and Toto games operated by Singapore Pools ('Pools'), and certain types of gaming in private clubs. All other forms of gambling were illegal. However, since 1999, Pools introduced football betting to Singapore as well.

The administrative development of the STC, particularly in its role on behalf of the Tote Board, mitigated the adverse side effects of gambling, to the benefit of punters and arguably wider society.

A rationalisation exercise held in early 2004 resulted in Pools and the STC both coming under the purview of the Tote Board. Pools also took over all of STC's retail outlets. [81]

80 A business owner.

81 Lau, K.K. & Siew K.K. (2005). In the Name of Gaming: Taking a Chance on the Law. https://v1.lawgazette.com.sg/2005-2/Feb05-feature1.htm

World War 1

The use of the former racetrack at Farrer Park during WW1 to raise money for the War effort demonstrates a high degree of social awareness on the part of STC (then known as the Singapore Sporting Club) to keep people's spirits up through entertainment whilst directly supporting the Government in its pursuit of military success. It is another example of the interconnectedness of STC, its racing venue, and the governance of the country.

Charitable activities

According to *The Winning Connection – 150 years of Racing in Singapore*[82], STC has reinvested surplus revenue into the community by funding various arts, community, and charitable activities. Over many years, donations were made to a variety of charitable causes, which included the funding of scholarships overseas for the benefit of Singaporeans. It demonstrated a sustained commitment to the community that was outward-looking and internationalist that regarded Singapore as a significant player in the region and the wider world.

The public connection

Engagement with the public evolved during the early post-War years. For example, the introduction of race days on Sundays in 1959 (which meant racing was held on both weekend days) and opening to the public in 1960 each enabled working people to enjoy the sport. The ticket cost at the time was SGD4.00. Membership to the Club at Bukit Timah was free, but members had to pay an annual subscription as well as a fee to enter the members' enclosure.

While it had started as a personal initiative among a few wealthy business associates, horse racing in Singapore experienced rapid growth in popularity marked ultimately by the North Grandstand in 1981 and the resultant capacity of some 60,000 spectators.

The construction of the North Grandstand coincided with the establishment of microwave links that enabled races at Bukit Timah Racecourse to be broadcast live across Malaysia [83].

At Bukit Timah Racecourse, the typical yearly calendar was 32 race days. This comprised eight weekends, with two races each on Saturday and Sunday. Just before the site's closure, the first Singapore Racing Carnival Weekend and Ladies' Day was held in 1997 [84].

Aside from those devoted racegoers, visiting the racecourse, particularly on non-race days, required the general public to make a concerted journey out to Bukit Timah Racecourse. The relative isolation of Bukit Timah drove the Club to introduce offers to attract a new generation of racegoers and public visitors, including both locals and tourists.

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82 Tan, S. (1992). *The winning connection: 150 years of racing in Singapore.* P11.
83 Tan, S. (1992). *The winning connection: 150 years of racing in Singapore.* P9.
84 MUSE SG No. 39 Volume 12 Issue 01

Bukit Timah Racecourse has also hosted a variety of non-sporting events. These include the World Orchid Conference on the 3rd October 1963 [85]. It was during the 1980's that tours of the course on non-race days was introduced, as well as dining packages within the grandstand facilities [86].

The Bukit Timah site still retains a high degree of both public and private accessibility through the commercial and leisure enterprises, and the connection to equestrian activities via BTSC who continue to train horses and stage competitions at the site. In general, the social value of the site is now modified by its appropriation as a multi-purpose leisure venue following the relocation of horse racing to Kranji in 1999.

Through the interrelationship between the historical and aesthetic values described above, Bukit Timah Racecourse provides a strong association in the collective memory of local people who were racegoers/ spectators, and for those who worked there through the 20th century within the equestrian and horse racing sector.

Oral history interviews were conducted to assist mapping the historical and contemporary social significance of the Bukit Timah Racecourse. This included people who were connected with the site, including:

- previous and current users of the site;
- Charles Ho, architect of the North Grandstand; and
- Mark Bailey, son of a previous Secretary of STC during the 1950's.

85 NewspaeprSG. (n.d.). Singapore Turf Club, Orchid Festival Show. https://eresources.nlb.gov.sg/newspapers/Digitised/Article/straitstimes19630303-1.2.28?ST=1&AT=search&k=orchid%20festival%20show%20singapore%20turf%20club&QT=orchid,festival,show,singapore,turf,club&oref=article

86 NewspaperSG. (n.d.). Turf Club Tourists. https://eresources.nlb.gov.sg/newspapers/Digitised/Article/newpaper19891007-1.2.13.1?ST=1&AT=search&k=turf%20club%20woos%20tourist%20tummy&QT=turf,club,woos,tourist,tummy&oref=article#

4.4 Contextual Value

Buildings	**Moderate**

There is a strong element of group value associated with the extant buildings, however, the balance of assessment of significance between individual and group should be assessed according to the prevailing characteristics. For example, the North and South Grandstands can be considered both individually and as a group, whereas the bungalows derive their primary character as stand-alone structures. There are also extensive distant views from the site, which is an important characteristic of the site's aesthetic value.

Chapter 2.0 and 3.0 provide details of the contextual value of individual buildings, but in summary terms the site combines elements of functionality, operational zoning, and aesthetic setting designed to exploit the potential of the site. Most buildings are orientated orthogonally with the race track, the exceptions being the bungalows, where orientation according to the sun path and views are more important. The southern end of the site is predominantly the working area of the site, comprising stables, living quarters for workers and syces, flanked east and west by some of the earlier bungalows. The Secretary's Bungalow (both the earlier and later incarnations) are sited at the north end, beyond the North Grandstand, which affords them considerably greater space and separation from every-day operations. Substantially greater areas of stabling are located at the east and north east dating from the later 20th century (the former now demolished). Interposed between these two clusters, roughly parallel with the east side of the race track, is a large area give over to labourers' quarters and the community centre. All these blocks are, for the most part, randomly disposed on the site. Most recently, sporting facilities have been constructed within the footprint of the race track at its north end.

Landscape	**Moderate**

Bukit Timah is a reference to Singapore's highest hill [87]. This was important during WWII as the site provided a natural lookout over downtown Singapore.

Bukit Timah area was originally a wild forest before becoming nature reserve in 1883 by Nathaniel Cantley, then Superintendent of the Singapore Botanic Gardens. Part of it was later converted into a Rubber Estate due to economic pressures. In 1927, STC purchased a part of the Estate to develop the racecourse.

In order to create the racecourse, the site had to be levelled, drained, and cleared of trees and tall bush. The trees that survived the re-landscaping have become significant due to their age. The whole of the site is included in the Central Tree Conservation Area (TCA)[88] There does not appear to be a register of trees located within the TCAs, however, they contribute substantial contextual value.[89] Botanically, the plant population of the site is important in the general sense however no records of items of exceptional interest has been found[90]. A separate study on the environmental baseline and impact of the proposed CR14 station and associated tunnels is being conducted.

The Bukit Timah Railway Station was built near the racecourse in 1932. Due to its proximity to the racecourse, the railway station served as an unloading point for racehorses (NHB, 2021).

The ravine that traverses the footprint of the race track is an interesting fragment of the site's apparently natural topography and character. However this will need to be verified by comparison of early and current maps and geological investigation.[91] It may be for example, that the "ravine" is merely a by-product of the levelling that was carried out to accommodate the race track that has become naturalised over the years. There clearly was substantial work in this area: "The going was heavy especially in the valley area where the southern bend of the track now is. The contractors also had to….fill valleys to create level land." [92]

87 MUSE SG No. 39 Volume 12 Issue 01

88 Singapore has two Tree Conservation Areas – the Central TCA and the Changi TCA. These were gazetted on 2 August 1991. The felling of any tree within a TCA with a girth greater than one metre is subject to the approval of the Commissioner of Parks Recreation.

89 National Parks Singapore. Heritage Trees, 2021. https://www.nparks.gov.sg/gardens-parks-and-nature/heritage-trees

90 Searches to date have not revealed a State-wide botanical register.

91 It may be for example, that the "ravine" is merely a by-product of the levelling that was carried out to accommodate the race track that has become naturalised over the years.

92 The Winning Post: 150 years of racing in Singapore, p.28.

Key View No. 1 & 2 (V1 & V2)	**Exceptional**

Viewpoint No.1 is at the entrance point to the Grandstands from Turf Club Road, where the two grandstands and racecourse are dramatically revealed. It marks a strong sense of arrival. Later developments have impaired this view, including alterations to the South Grandstand in 1956 and 1981, erection of the North Grandstand in 1980 and remodelling of the multi-storey car park in 1987.

Viewpoint No.2 is located at the seating deck in the north grandstand looking towards the main racetrack and the backdrop of forested landscape beyond. This views presents the physical and spatial connection between the grandstand and the racetrack and the wider context. This view was the primary outlook for racegoers on race days and it has remained largely unaltered since the establishment of the course. The extension of the course and the construction of the north grandstand and the maturation of the forest has strengthened these characteristics.

These two viewpoints are located at publicly accessible areas, which therefore provide substantial collective memory of the site for former racegoers and visitors. Their significance is exceptional.

Key View No. 3 & 4 (V3 & V4)	**Moderate**

Viewpoints 3 and 4 are more exclusive, focusing on views from significant residential properties which were occupied by the Secretary and Deputy Secretary. When first constructed, those residing in these residential properties were afforded glorious un-interrupted vantage points overlooking the racecourse.

Viewpoint No.3 is from the former Deputy Secretary's bungalow (building no.7). Looking towards the main racetrack. This view has been impeded by the construction of the North Grandstand. Located further north, viewpoint No.4, from the former Secretary's bungalow (building No. 6) had a superior view of the racetrack. This view has been restricted by the growth of vegetation around the plot, which conversely, afforded the bungalow greater privacy from the public when the carpark was extended toward it.

Both viewpoints clearly illustrate the rationale behind the buildings' design and strategic orientation affording those that helped run the site unique views of the racecourse. Since these were not publicly accessible views, the significance is therefore lower than viewpoints 1 and 2 and are rated as moderate.

The location of views of V1 to V4 are illustrated in Figure 4.24.

Figure 4.24 Indication of key viewpoints and their significance.

4.5 Scientific Value

In addition to the values discussed across 4.1 to 4.4, scientific value (as defined in Table 1.1 and 1.2) can also be attributed to the Bukit Timah Racecourse as follows:

Technology	**Moderate**

The racetrack at Bukit Timah made several innovations, some of which were "firsts" in the racing industry.

The growth in popularity and its manifestation with the development of Bukit Timah Racecourse brought with it associated improvements to the spectator experience and the conduct of races. In 1976, racing at Bukit Timah was first broadcast in colour. This required the installation of a new system costing $250,000, which included the addition of special zoom tele-photo TV cameras to capture the racecourse and paddock area [93].

In 1978 the Omega Photo Finish System was installed, in which cameras would log the duration of each race and pinpoint the finish time of each horse to within 1/10th of a second, presumably making the examination of photos *per se* of secondary importance.

In 1981, a microwave link was established between Bukit Timah and Malaysia to enable live transmission of races held on the mainland to be enjoyed by racegoers in Singapore. Apart from the technological significance of this, it shows the extent of social value and Bukit Timah's place in what was at the very least a regional phenomenon.

Three more innovations followed in quick succession during the 1980s: first, the erection of a giant outdoor TV screen some 18 metres x 6 metres so racegoers could follow the action more closely without the need for binoculars. Next, installation of an Eidophor screen in the Inquiry Room so that adjudications could be conducted with greater certainty of a fair outcome. And lastly in the decade, the establishment of compulsory urine and blood tests of horses to check for doping.

These events show that STC was in the vanguard of improvement in the industry and Bukit Timah Racecourse was the place where they first happened.

93 New Nation, 11 April 1976, Page 2

Table 4.1 below summarises the significance level of the various values discussed in this section.

Value	Significance Level*
Aesthetic or Architectural Value	
The Site	**Exceptional**
North Grandstand	**Exceptional**
South Grandstand	**Exceptional**
Post-independence Architecture	**Moderate**
Racecourse	**Moderate**
Support facilities	**Moderate**
Historical Value	
Singapore Turf Club (STC)	**Exceptional**
Role during World Wars	**Moderate**
Bukit Timah Racecourse	**Moderate**
Contribution to Sports Racing	**Moderate**
Equestrianism	**Moderate**
Association with organisations and individuals	**Low**
Communal and Social Value	
Horse Racing	**Moderate**
Contextual Value	
Buildings	**Moderate**
Landscape	**Moderate**
Key View No.1 & 2 (V1 & V2)	**Exceptional**
Key View No.3 & 4 (V3 & V4)	**Moderate**
Scientific Value	
Technology	**Moderate**

Table 4.1: Summary table of significance level of each heritage value.

* For the definition of significance level, refer to Table 1.5.

4.6 Heritage Values attached to individual buildings/structures/ spaces and assessment of significance

4.6.1 Provisional Assessment

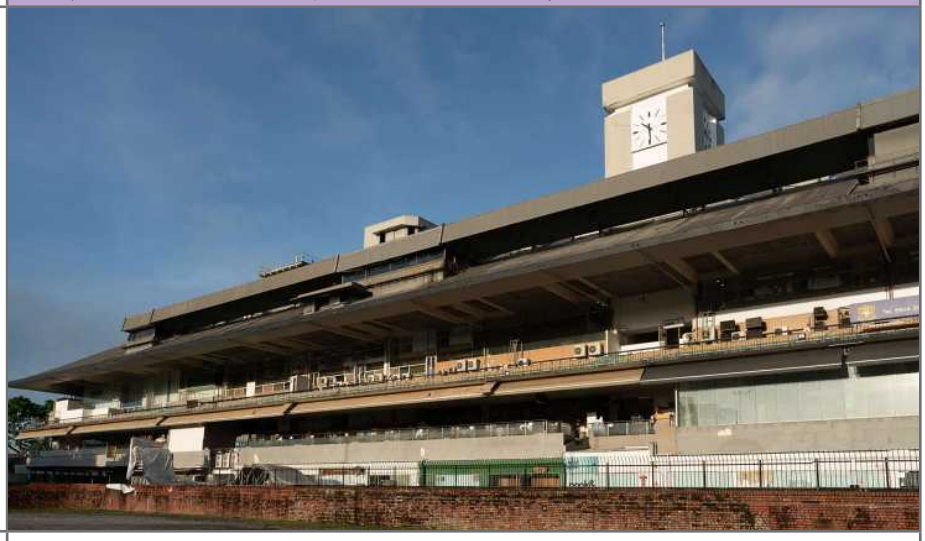
The following section outlines:

1. basic building information;
2. an assessment of physical condition based on definitions set out in table 4.2;
3. the heritage values attached to each building/structure/open space;
4. an assessment of significance based on the attributes in table 1.5 in order to determine a significance banding
5. additional plates.

The assessment is based on limited available information and access to the site during the period of this heritage research study commission. It is further limited to those buildings, structures, and open spaces within the boundary of the study area. A value with a score of zero is denoted as "NS" (non-significant). Detailed plates on buildings etc located outside the study area are not provided in this report, however a summary table of their values is provided - see Table 4.2.

Condition	Monitoring Indicator
Good	Performing as intended and operating efficiently.
Fair	Performing as intended but exhibiting minor deterioration.
Poor	Exhibiting major defects and/ or not operating as intended.
Very Bad	Life expired and/ or serious risk of imminent failure.

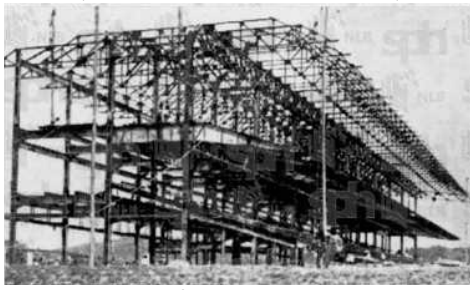
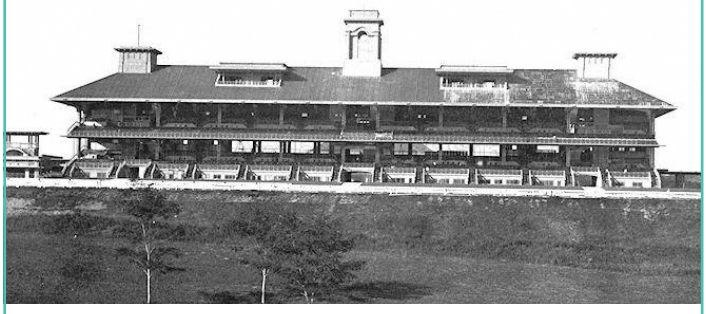
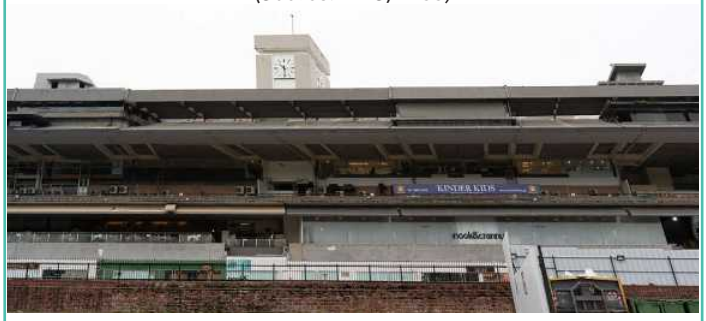
Table 4.2: Definition of terms used to describe the condition of buildings.

Building Information	
Building Number	1.1 (South Grandstand, 200 Turf Club Rd)*
External View	
Year Built	1933
Original Use	Grandstand to host crowds and offices.
Current Use	Commercial (Shops, restaurants, preschools, tuition centres and offices)
Current Condition	Good

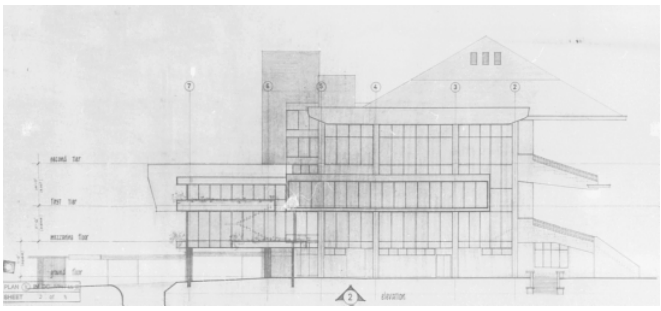
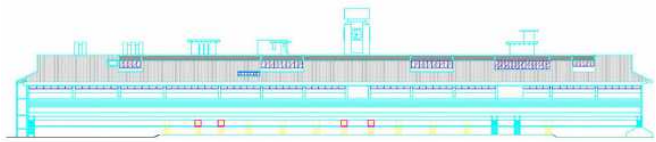
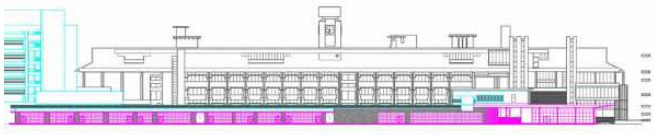
* To aid an understanding of the significance, the coloured cell aligns with the significance level awarded in Table 4.3.

Assessment of Significance	
Aesthetic & Architectural Value	Steel-frame structure with concrete floors, consisting of three tiers that rise to a height of around 25 m. Encased in a concrete canopy over the highest row of concession stands to provide shade. Originally built in 1933, later enlarged in 1956 symmetrically on both sides to accommodate larger crowds. Original clock tower was replaced by a new one in 1981. Roof modified to accommodate more seatings in 1981 with addition of a new storey, along with the construction of the North Grandstand. At this time, the elevation facing the car park was also refurbished with the addition of booth-shaped blocks.
Historical Value	Racing ceased during WWII and it was used as a hospital, first by the British military authorities, and then by the Japanese during their occupation. After liberation, it was used as a military transit centre. In poor condition at the end of the war, and a $3 million renovation project was launched. Racing resumed two years after the war (1947). Visited by Tan Kah Kee (prominent political figure in Southeast Asia) in 1949, where he gave a speech raising his objections to America's support for Kuo Min Tang's war against the communists. Hosted several large-scale events, such as the International Orchid Festival Show (1963), Singapore Gardening Society's Flower Show (1964), Singapore Flower Show (1965 & 1966) and Horticultural Show (1970). These shows were visited by foreign dignitaries and Singapore's former presidents (Yusof Ishak, Ong Teng Cheong and Wee Kim Wee). Visited by the Queen and other UK Royals in 1972. Several other local and foreign dignitaries sat under its roof during their visit to the Bukit Timah Racecourse to watch races and attend events.
Communal & Social Value	Attended by racegoers after it was opened to the public in 1960. The only legal form of gambling at that time. On race days, it would attract huge crowds which resulted in massive traffic jams in Bukit Timah region. After renovation in 2012, the South Grandstand, along with North Grandstand, is used as a commercial and social space for the public, and a centre for sports academies and educational facilities.

Assessment of Significance	
Contextual Value	A physical and visual landmark of Bukit Timah Racecourse. Initially, the site consisted of undulating hills and trees. These were flattened and removed to accommodate the racecourse. Provided spectators with a panoramic view of the racecourse. Sitting near the parade ring gave the audience a chance to engage in the pre and post-race ceremonies.

Additional Plates	Description
 *(Source: The Straits Times, 1933)*  *(Source: The Straits Times, 1933)*	Steel-frame construction, able to be assembled and disassembled quickly. Constructed of British steel throughout, supplied by Redpath, Brown & Co., Ltd., and erected by United Engineers Ltd.
 *(Source: NAS, 1933)* 	Top: Front elevation upon construction in 1933. Original roof consisting of stewards' and owners' boxes. Bottom: Roof renovation carried out in the 1980s to accommodate more facilities for turf club members, such as Stewards Box, VIP Boxes, Meeting Rooms (Ho [pers. comm.], 2021).

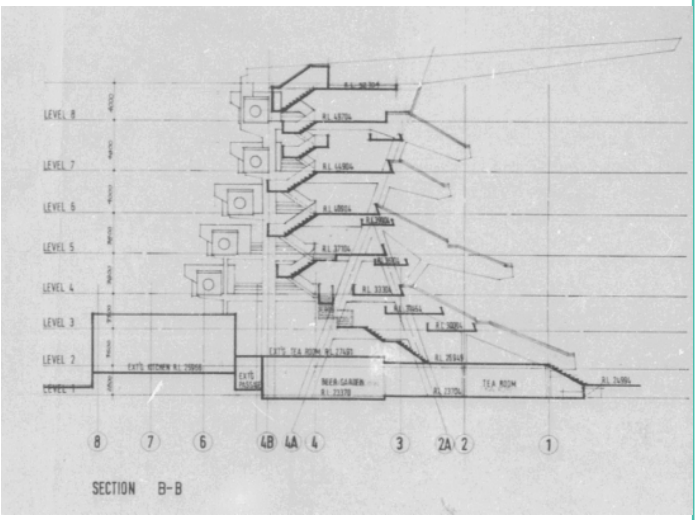
Additional Plates	Description
 *(Source: Mark Bailey, 1950s)*  *(Source: NAS, 1960s)*	Renovation project was launched after World War II, including South Grandstand. Longitudinal extensions (symmetrical) on both sides of the South Grandstand made in 1956, adding two additional VIP boxes, refreshment facilities, sitting area and new totalisator points. Sitting capacity was increased to double. Extensions were made due to an increase in membership. There were 5,000 members in the 1930s, which exponentially increased to 15,300 in 1949.
  *(Source: Mark Bailey, 1950s)*  	Bridge (1933) connecting the South Grandstand and the open-air car park. It was later linking the current multi-storey car park (1980s). Original bridge to segregate pedestrains and vehicles. Public transport and BTC shuttle buses were allowed to drop off directly outside the gate of the South Grandstand, where the ticket booths were located (Ho [pers. comm.], 2021). Large frame of roof constructed to provide weather protection with the entry ticket booths and taxi stands located away from the bridge flow.

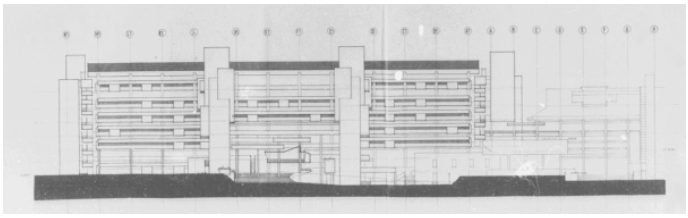
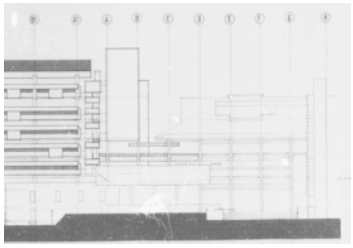
Additional Plates	Description
  *(Source: The Straits Times, 1956)*	Top: Clock tower. Currently non-functional, adaptation of the original design. Clock-face design changed and repainted to keep in line with the preventative maintenance and upgrading of the Grandstand. And, also for the need to be seen from afar for the punters (Ho [pers. comm.], 2021). Bottom: Original design of clock tower (1933). Original clock was supplied by Gent & Co., Ltd., of Leicestershire, UK.
 *(Source: Iversen, Van Sitteren & Partners, 1975)*	South Elevation (facing the main entrance from Turf Club Road).
 *(Source: Formwerkz, 2012)*	East Elevation (facing the Main Track).
 *(Source: Formwerkz, 2012)*	West Elevation (facing the car park).

Additional Plates	Description
	Addition of shops west of the South Grandstand (after the 2000s). Covering the landscaping behind, which was part of the original entrance experience.
  *(Source: Mark Bailey, 1950s)*	Addition of extensions (after the 2000s). Landscape reconstruction (after the 2000s). Balconies renovation, addition of enclosure (after the 2000s).
 *(Source: National Museum Singapore, 1980s)*	Landscaped area at the entrance of the South Grandstand. Constructed in the 1980s together with the North Grandstand. Parts of landscape design and horticulture works by Lesley Ho (wife of Charles Ho, architect of the North Grandstand). Landscaping further accentuates the grandeur of the main entrance.
 *(Source: NAS, 1972)*	Queen Elizabeth II, Prince Phillip, Princess Anne and other British Royals together with Mr & Mrs Runme Shaw in the VIP box (1972).

Building Information	
Building Number	1.2 (North Grandstand, 200 Turf Club Rd)
External View	
Year Built	1981
Original Use	Grandstand to host crowds and offices.
Current Use	Commercial (Shops, restaurants, preschools, tuition centres and office) rooms.
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	A diverse range of architectural influences is evident in the North Grandstand. The dramatic cantilever roof, the largest of its kind in Singapore, recalls structures such as Pier Luigi Nervi's first masterpiece, the Artemio Franchi football stadium in Florence, built in 1929-32, and the Zarzuela Hippodrome in Madrid, designed in 1934 by Carlos Arniches, Martín Domínguez and Eduardo Torroja. The modernist architectural language is exemplified by its structure and function. The roof provides ample shade from the sun.
Historical Value	Visited by local dignitaries such as former President of Singapore, Ong Teng Cheong in 1995, 1996, 1997 and 1998 as Guest-of-Honour of the Singapore Gold Cup Race; Fourth President of Singapore Wee Kim Wee in 1997; and former Defence Minister, Yeo Ning Hong also in 1997. Visited by former President of Namibia, Sam Nujoma in 1996.

Assessment of Significance	
Communal & Social Value	Central attraction during race days, where racegoers gather. Prior to the opening to the general public, racegoers had been dominated by the upper class. The gatherings and races also serve as social networking events. Currently serving as a commercial lifestyle hub and social space for the public, a gathering point for nearby sports academies and educational facilities.
Contextual Value	A physical and visual landmark of the Bukit Timah Racecourse, which was the centre of the operations of STC. Built in 1981 in addition to the South Grandstand to cater to the increasing number of crowds since racing became increasingly popular in the 1970s.

Additional Plates	Description
 *(Source: Iversen, Van Sitteren & Partners, 1976)*	South elevation showing the use of cantilevered roof covering the grandstand sitting area. The stairwell cores at the two ends provides stability to the roof cantilever and strength to the architectural elevation.

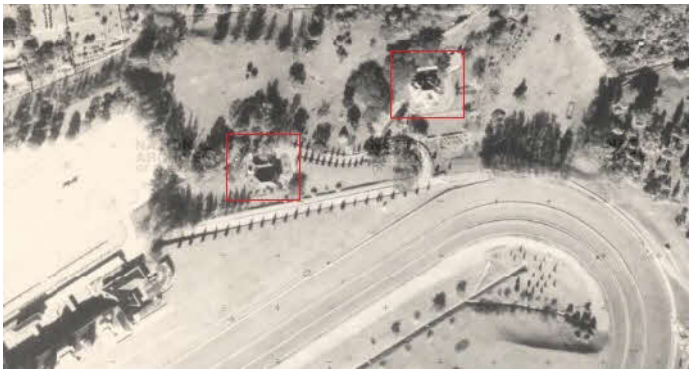
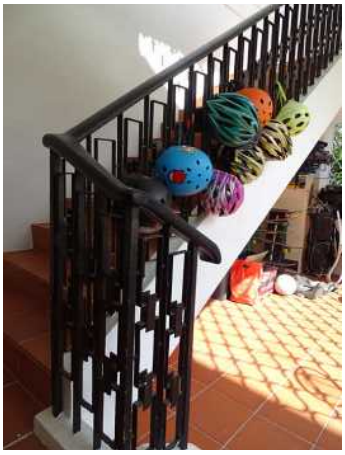
Additional Plates	Description
 *(Source: Iversen, Van Sitteren & Partners, 1976)* 	Top: West Elevation facing the car park. Bottom: Section of covered walkway linking South Grandstand and North Grandstand.
	The side view of the deck. Railings, and the columns that support the deck. Parts of the seating areas partitioned by concrete. Layout changed to accomodate other usages.
 	Circular and cylindrical elements on the side and rear show the stylistic influence of the Japanese metabolist school, while the massive trapezoidal vertical elements hint at the heroic structures conceived by the visionary Italian architect Antonio Sant'Elia. Windows angled to deflect the sun, reducing heat penetration and allowing good cross ventilation.

Additional Plates	Description
 *(Source: Tan, 1992)*	VIP box for commentators, judges and guests.
 *(Source: Tan, 1992)*	East Elevation facing the Main Track. View during a race day. Designed to host up to 20,000 people together with the South Grandstand.
 *(Source: Tan, 1992)*	Race day control room.

Building Information	
Building Number	2 (Multi-storey car park, 210 Turf Club Rd)
External View	
Year Built	Originally built in the 1930s. Expanded as a multi-storey car park in 1987.
Original Use	Car park
Current Use	Car park & Car Mall
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Two-storey reinforced structure consisting of the car park and Car Mall. The car park was originally open-air. The two-storey car park was built in 1987. Addition of planter boxes and curved railing to visually integrate with the green landscaping in front of the South Grandstand (before it was obstructed by present new extensions), and with the curved balconies respectively.
Historical Value	The original construction in 1933 and expansion in 1987 of the multi-storey car park had witnessed the growing popularity of horse-racing in Singapore, and growing car ownership. During the racing event, the car park after its expansion could at most accommodate 2,900 cars compared to 1,000 cars in 1933.
Communal & Social Value	NS
Contextual Value	Sitting adjacent to the main entrance which provided the locational convenience for public visitors, syces, and horse owners to park the cars and enter the racecourse.

Additional Plates	Description
 *(Source: NAS, 1955)*	Open car park before its expansion as a multi-storey car park in 1987.
	The multi-storey car park (1987) was converted into a used car trading centre/ Car Mall in 2001 after racing operations were moved to Kranji.

Building Information	
Building Number	6 (Duplex Flats, 192 Turf Club Rd)
External View	
Year Built	1933
Original Use	Secretary's Bungalow (In 1981 was converted into Duplex Flats)
Current Use	Private Bungalow
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Symmetrical tropically-adapted colonial bungalow influenced by the local vernacular tradition and plantation house. Porch extended at the ground floor to provide spaces for gathering and used to serve as the drop-off point in the past. Archways on each side provide an experience of entrance. The covered balcony on the second floor provides the relaxed space to enjoy the views, and helps reduce direct sunlight. The pitched roof help enhance the cross ventilation for the occupiers. The brick chimney stacks in the rear annexe where original kitchens must have been located add to its architectural character.
Historical Value	The suites had been the accommodation for secretaries of STC, including L J C Bailey who served from 1948-61.
Communal & Social Value	NS
Contextual Value	Located at the elevated vantage point to help overlook the Main Track.

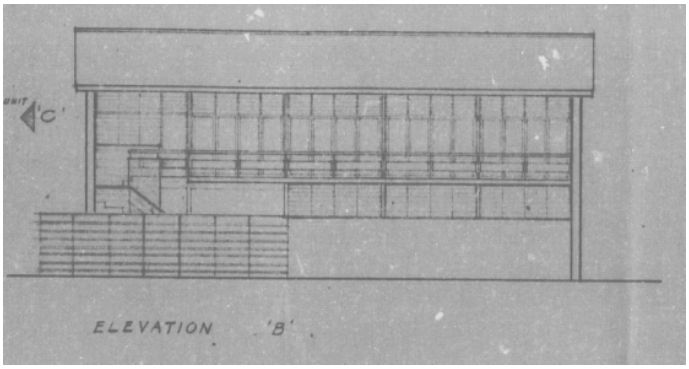
Additional Plates	Description
 *(Source: NAS, 1959, Adapted by Author)*	Elevated vantage points without obstructions from plantations. Left: Original Deputy Secretary's Bungalow (#198) Right: Original Secretary's Bungalow (#192)
	The annexe with kitchen and servants' quarters located at the rear of the main house. The brick chimney in the original kitchen is now defunct.
  	Top left: Original wrought iron balustrades with timber handrailing. Top right: Cement ventilation blocks. Pebble-dash plaster with plaster grooves. Bottom: Blocked opening at the ground floor, staircase core. Note the difference in gravel size of the pebble dash plaster. The original gravel is smaller and more round.

Additional Plates	Description
	Covered walkway connecting to servants' quarters and kitchen at the rear of the house. Replacement ceramic floor tiles.

Building Information	
Building Number	7 (Secretary's Bungalow, 198 Turf Club Rd)
External View	
Year Built	1933
Original Use	Deputy Secretary's Bungalow (In 1981 converted into the Secretary's Bungalow)
Current Use	Vacant
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Symmetrical tropically-adapted colonial bungalow influenced by the local vernacular tradition and plantation houses. The ground floor is paved with tiles to maintain nighttime coolness. Wide verandas and windows sheltered by overhanging eaves for protection from direct sunlight. High-pitched roofs allow rainwater to run off quickly, while drawing hot air upwards, to provide a cool and well-ventilated space for the occupiers. Brick chimney stacks in the rear annexe serving the original kitchens. Balconies on the upper floor, one of which has been enclosed. External staircase likely to be a later addition.
Historical Value	Several deputy/ secretaries of STC resided in the building, including A H Todd, who died either in internment or during World War II.
Communal & Social Value	NS
Contextual Value	Elevated vantage point towards the Main Track.

Additional Plates	Description
	Spacious entrance with metal gates leading to the bungalow, adding to its grandeur.
 	Top: Rear wing where the chimney is located. Possibly used as a kitchen and servants' quarters. Bottom: Later added staircase connecting 1st storey to 2nd storey balcony.
 *(Source: Mark Bailey, 1950s)* 	Building was originally symmetrical. Upper level balcony later enclosed. Original timber-louvered windows replaced with metal framed fixed-glass planels. Bottom: Single lean-to-roof added on to the ground floor under the projected central part of the house at the later date (unknown) to create a verandah to augment the entrance.

Building Information	
Building Number	16.1 (Club house, 51 Fairways Drive)
External View	
Year Built	1962
Original Use	Club House for Bukit Timah Saddle Club
Current Use	Restaurant and Bukit Timah Saddle Club's office
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Two-storey building on a sloping site, the upper storey elevated on slender columns. Influenced by plantation houses. Designed for tropical conditions. Pitched roof covered with red clay tiles. Extended on one side with a timber deck enclosed by verandahs and louvred double-leaf shutters which allow natural ventilation.
Historical Value	The club house has been managed by Bukit Timah Saddle Club, which was founded in 1951. The club allowed retired race horses to be ridden recreationally. Visited by former president of Singapore, Wee Kim Wee in 1988.
Communal & Social Value	Bukit Timah Saddle Club has been one of the leading equestrian facilities in Singapore since 1951. Even after the Turf Club was relocated to Kranji, it has taken over the root and cultivated the horse-racing scene and sports culture. The Saddle Club receives around 24,000 riders annually. The Club House has been a dining and social space for the public and Saddle Club members.
Contextual Value	Situated near the stables and the Labourers' Quarters, it used to be the nexus point for the club members and workers alike.

Additional Plates	Description
	Front elevation facing Fairways Drive. Original struture still intact. Original timber frame windows with timber louvres. Fixed glass panels added later.
	Pitched roof for thermal dissipation. Louvres above doors presently sealed for aircon.
  *(Source: Iversen, Van Sitteren & Partners, 1962)*	Later extension (2-storey high) on the Northeast side of the building. (See Appendix 15) Defunct chimney stack.

Building Information	
Building Number	16.2 (Stables, 51 Fairways Drive)
External View	
Year Built	1962
Original Use	Stables
Current Use	Stables
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Single-storey building. Rectangular in plan. Post and beam structure. Constructed with steel, brick, concrete. Pitched roof covered with cement tiles.
Historical Value	NS
Communal & Social Value	NS
Contextual Value	NS

Additional Plates	Description
	Openings partially infilled with brick at the rear end.

Building Information	
Building Number	17 (Fairways Bungalow, 55 Fairways Drive)
External View	
Year Built	1960s-1970s
Original Use	Malayan Racing Association Apprentice Jockey Training School & accommodation
Current Use	Preschool
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Modern two-storey bungalow with a pitched roof covered with interconnecting clay tiles, connected to the single-storey north wing. Pebble-dashed walls, painted white.
Historical Value	NS
Communal & Social Value	NS
Contextual Value	Located in the proximty of stables, and other facilities necessary for the apprentice jockeys to practice their skills. A mosque (now demolished) was built adjacent to the School.

Additional Plates	Description
	West wing. Round ventilation blocks under a gable roof. Partial brick wall later plastered in pebble dash in 2016. Ventilation fins, steel-framed windows, and single leaf door were later added.
	Pitched roof for thermal dissipation. Added windows facing the south wing.
	Extended north wing. Added aluminium frame casement windows with fixed glass panel.

Building Information	
Building Number	18.1 (Labourers' Quarters, 53 Fairways Drive)
External View	
Year Built	Between 1947-53
Original Use	Labourers' Quarters
Current Use	Vacant
Current Condition	Fair
Assessment of Significance	
Aesthetic & Architectural Value	Pitched roof for thermal dissipation covered with interlocking red clay tiles, extended roof eaves, designed for tropical conditions. Simple rectangular plan, inexpensive to build and purely functional design. Mild steel framed windows fixed with coloured translucent glass. Series of ventilation blocks stretched throughout the longitudinal elevation. After the relocation of STC in 1999, the quarters have not been occupied, leading to extensive damages to certain sections of roofs causing rainwater ingress.
Historical Value	NS
Communal & Social Value	A closely-bonded community was formed in the Fairway Quarters among the Indian workers. The temple shrined with several deities (Sri Muthu Mariamman , Lord Vinayagar and Lord Murugar) was built inside of the quarters in 1956 by STC management, providing a spot for praying and gathering for Indian workers. The Indian community had held multiple traditional events annually that welcomed Chinese and Malay workers to celebrate together (Tamilsegar [pers. comm.], 2021).
Contextual Value	Built in close proximity to the now-demolished stables, close to the Main Track.

Additional Plates	Description
	19Nos. blocks standing at the site. Brick chimneys above kitchen. Ventilation blocks under the gable roof. Some windows blocked up.
 *(Source: Mark Bailey, 1950s)*	Quarters in the 1950s.

Building Information	
Building Number	18.2 (Community Centre, 53 Fairways Drive)
External View	
Year Built	Unknown
Original Use	Multi-purpose room
Current Use	Vacant
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Single-storey hexagonal building. Post and beam construction. Pitched roof covered with terracotta tiles.
Historical Value	NS
Communal & Social Value	A gathering place for the Turf Club workers and labourers. Also, used as a place for bands to play music for recreation and store goods.
Contextual Value	The building stands in the middle of a "reserve" green area, which served as a community gathering space for the nearby residing workers.

Additional Plates	Description
	Red clay tiles imported from *"Guichard Carvin et Cie from Marseille St. Andre"* . By the late 19th Century, Marseille Tiles, also known as French tiles, were imported by the colonial government to Singapore. The flat terracotta tiles with interlocking grooves were developed in Marseille in the 1850s. Guichard Carvin et Cie from Marseille St.Andre was one of the manufacturers whose roof tiles were widelyused in Singapore. (URA, n.d.)

Building Information	
Building Number	19 (Hay Barn)
External View	
Year Built	1980s
Original Use	Concrete Platform (roof added later, date unknown)
Current Use	Antiques stores
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Long single storey, three-side open building abutting a slope. High-pitched roof with multiple tiers, supported by wooden brackets, covered with red clay tiles provides natural ventilation and coolness inside the building. High roof space was to leave space between stacks to allow the hay to breathe better. The building design reflecting the topography with the slope within the terrace.
Historical Value	NS
Communal & Social Value	NS
Contextual Value	NS

Additional Plates	Description
 	Top: Unusual roof in multiple tiers, supported by wooden brackets. Bottom: A section of the original brick retaining wall with weeping holes.

Building Information	
Building Number	23 (Basketball court shelter, Turf Club Road)
External View	
Year Built	After 2000
Original Use	Basketball court shelter
Current Use	Basketball court shelter
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Basketball court sheltered with a metal truss PVC tent. Temporary structure, easily assembled and disassembled.
Historical Value	NS
Communal & Social Value	After the relocation of the Turf Club, the Main Track and nearby land parcels were divided into several sites for sports activities. Since 2000, these fields together have become one of the few providers in Singapore that offer outdoor multi-sports and recreational activities for kids and adults. The site has accumulatively generated around 1 million usages from seasonal users per year. (Grier & Wen, 2020)
Contextual Value	NS

Note: No additional plates.

Building Information	
Building Number	24 (Sheltered sporting arena,Turf Club Road)
External View	
Year Built	After 2000
Original Use	Shelter for sporting area
Current Use	Shelter for sporting area
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Purpose built light steel truss structures with metal sheet roofing. Steel columns to hold the pitched roof. Ground is paved with concrete.
Historical Value	NS
Communal & Social Value	After the relocation of STC, the Main Track and nearby land parcels were divided into several sites for sports activities. Since 2000, these fields together have become one of the few providers in Singapore that offer outdoor multi-sports and recreational activities for kids and adults. The site has accumulatively generated around 1 million usages from seasonal users per year. (Grier & Wen, 2020)
Contextual Value	NS

Note: No additional plates.

Building Information	
Building Number	25 (Container blocks, Turf Club Road)
External View	
Year Built	After 2000
Original Use	Container blocks
Current Use	Container blocks
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	NS
Historical Value	NS
Communal & Social Value	NS
Contextual Value	NS

Note: No additional plates.

Building Information	
Building Number	26 (Indoor sporting arena, Turf Club Road)
External View	
Year Built	After 2000
Original Use	Shelter for sporting area
Current Use	Shelter for sporting area
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	NS
Historical Value	NS
Communal & Social Value	After the relocation of STC, the Main Track and nearby land parcels were divided into several sites for sports activities. Since 2000, these fields together have become one of the few providers in Singapore that offer outdoor multi-sports and recreational activities for kids and adults. The site has accumulatively generated around 1 million usages from seasonal users per year. (Grier & Wen, 2020)
Contextual Value	NS

Note: No additional plates.

Building Information	
Building Number	29 (Horse Bridge, Fairways Drive)
External View	
Year Built	Unknown
Original Use	Horse crossing
Current Use	Horse crossing
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Simple beam bridge with concrete deck. Cost-effective design for horse crossing.
Historical Value	NS
Communal & Social Value	NS
Contextual Value	NS

Note: No additional plates.

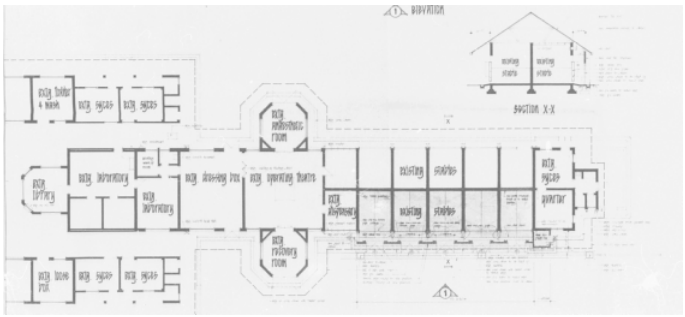
Building Information	
Building Number	30 (Horse Bridge, Fairways Drive)
External View	
Year Built	Unknown
Original Use	Horse crossing
Current Use	Horse crossing
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	Simple beam bridge with concrete deck. Cost-effective design for horse crossing.
Historical Value	NS
Communal & Social Value	NS
Contextual Value	NS

Note: No additional plates.

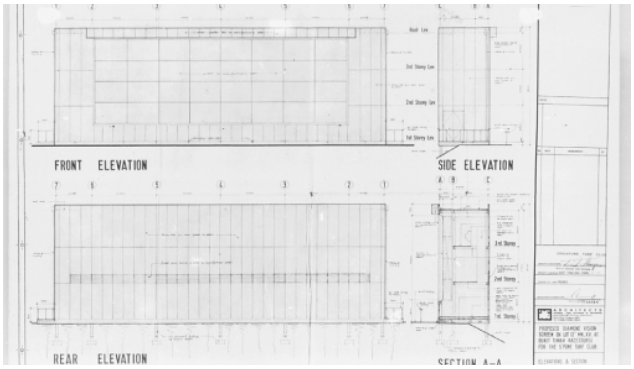
Building Information	
Building Number	31 (Hot Walker, Fairways Drive)
External View	
Year Built	Unknown
Original Use	Hot Walker (Horse Walker)
Current Use	Not in use
Current Condition	Very Bad
Assessment of Significance	
Aesthetic & Architectural Value	Simple round concrete structure designed for hot walking, allowing the horse to cool down after a hard exercise.
Historical Value	NS
Communal & Social Value	NS
Contextual Value	NS

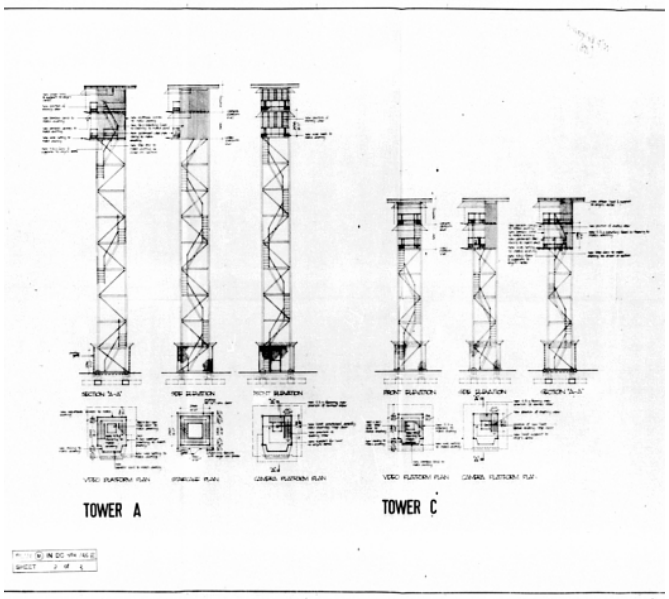
Note: No additional plates.

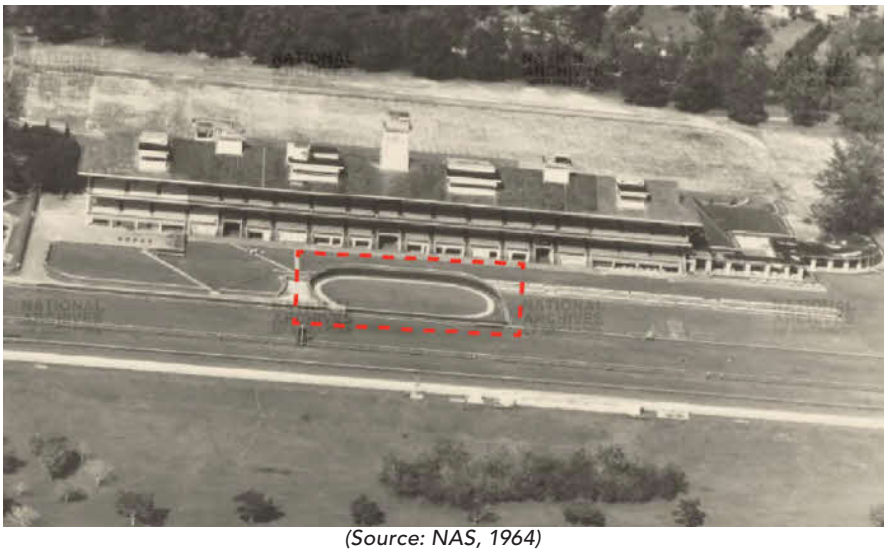
Building Information	
Building Number	D2 (Stables)
External View	 *(Source: NAS,1999)*
Year Built	Between 1947-53
Original Use	Stables. Later converted into medical treatment facility for horses
Current Condition	Demolished
Notes	Conveniently stationed near the stables (D3, refer to Base Plan, p18). The building was initially used as stables, then converted into an Equine Hospital in 1976. It served as a swabbing facility to test for drug use in horses before and after races. A block of 10 tables was upgraded to air-conditioned stables in 1976. Visited by Queen Elizabeth II, Duke of Edinburgh and Princess Anne during their state visit to Singapore in February 1972. Currently the site is covered with dense vegetation and relatively inaccessible by foot.

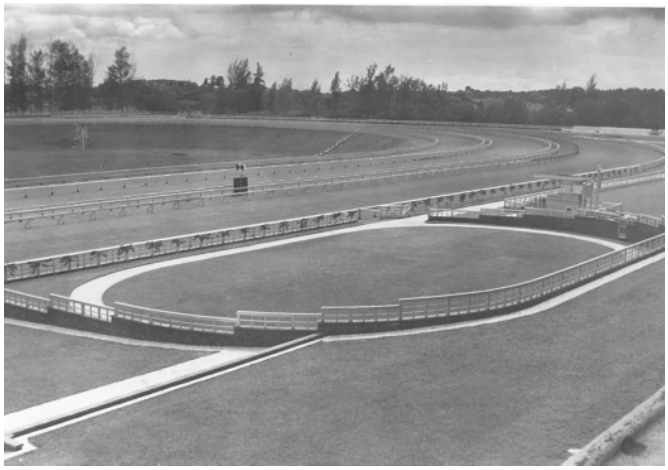
Additional Plates	Description
 *(Source: NAS,1999)*	Laboratory inside the Equine Hospital that was used for drug testing.
 *(Source: Iversen, Van Sitteren & Partners, 1976)*	Plan of the laboratory inside the equine hospital that was used for drug testing.

Structure Information	
Building Number	T1 (Main Track)
External View	
Year Built	1933
Original Use	Main Track for horse racing
Current Use	Sports fields and sports facilities
Current Condition	Fair
Assessment of Significance	
Aesthetic & Architectural Value	NS
Historical Value	During WWII, under the British military, the lawns were trenched and obstacles were placed on the track to prevent Japanese planes from landing. Used by legendary jockeys such as Lester Piggott, an English professional jockey who is widely regarded as one of the greatest flat racing jockeys of all time. He was invited to ride in the race to commemorate the visit by the Queen, Duke of Edinburgh and Princess Anne in 1972. He subsequently won the race with a champion horse Jumbo Jet, a New Zealand gelding.
Communal & Social Value	Serve as fields for sports academies.
Contextual Value	It is also situated at the centre, which manifests its significant role and the spirit of horse racing in this area.

Additional Plates	Description
	Trees have overgrown and seemingly dividing the track into two.
 *(Source: NAS, 1964)*	
 *(Source: Tan, 1992)*  *(Source: Iversen, van Sitteren & Partners, 1981)*	Diamond Vision Screen & Elevation Plan.

Additional Plates	Description
 	Top: Parts of the Main Track currently used for sports fields, which are covered with artificial grass. Bottom: Ravine in the middle of the Main Track.
 *(Source: Iversen, van Sitteren & Partners, 1981)*  *(Source: Tan, 1992)*	Camera tower. Currently demolished.

Structure Information	
Structure Number	T2 (Parade Ring)
External View	 *(Source: NAS, 1964)*
Year Built	Unknown
Original Use	Used for ceremonial showcases of winning horses, jockeys, trainers and horse owners.
Current Condition	Demolished, converted into a car park.
Notes	Adjacent to the North and South Grandstand, and the Main Track. Several foreign and local dignitaries were often invited to present trophies to winning jockeys, trainers, owners and horses. These include Queen Elizabeth II, Malay royals and local officials. Symbolic set location for capturing group photographs of race winners and dignitaries.

Additional Plates	Description
 *(Source: Mark Bailey,1950s)*	Parade Ring in the 1950s.

Additional Plates	Description
   *(Source:Tan,1992)*	Round podium beside the Parade Ring. Podium was used by VIP guests and Turf Club executives to present prizes and trophies to race winners. The original white paint is currently repainted with black paint. Some parts of the paint have flaked off. A round brick railing has been erected on top of the podium, its purpose is unclear.

Structure Information	
Building Number	T3 (Exercise Ring)
External View	
Year Built	Between 1947 and 1953
Original Use	Exercise ring for horse training
Current Use	Unknown
Current Condition	Fair
Assessment of Significance	
Aesthetic & Architectural Value	NS
Historical Value	NS
Communal & Social Value	NS
Contextual Value	Nicely tucked in between stable clusters (D3, refer to Base Plan, p17) and workers' quarters.

Additional Plates	Description
	Surrounding areas are now covered with dense vegetation, impassable by foot.

Structure Information	
Building Number	T5 (Bukit Timah Saddle Club Track)
External View	 *(Souce: Google Street View, 2019)*
Year Built	1960s
Original Use	Exercise ring for horse training and track for competitions
Current Use	Exercise ring for horse training and track for competitions
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	NS
Historical Value	Hosted the 12th Southeast Asian Games Equestrian Dressage Competition in 1983.
Communal & Social Value	A gathering space for equestrian sport enthusiasts.
Contextual Value	NS

Additional Plates	Description
 *(Source: NAS, 1983)*	Scene at the 12th Southeast Asian Games in 1983.

Structure Information	
Building Number	L1 (Horse Pastures)
External View	
Year Built	N.A.
Original Use	Exercise field for horses
Current Use	Exercise field for horses
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	NS
Historical Value	NS
Communal & Social Value	NS
Contextual Value	Situated along the horse training route for Bukit Timah Saddle Club.

Note: No additional plates.

Structure Information	
Building Number	L2 (Forested knoll)
External View	
Year Built	N.A.
Original Use	N.A.
Current Use	N.A.
Current Condition	Good
Assessment of Significance	
Aesthetic & Architectural Value	NS
Historical Value	NS
Communal & Social Value	NS
Contextual Value	Environmental value to be detailed in the EIA

Note:

1. *This item is tackled as a special case since the Forested Knoll has environmental value. This value is not however part of the study.*
2. *A point is awarded for this special case, but this is provisional as the separately commissioned EIA report was not available for review during the study period.*

4.6.2 Summary of the Assessment Score

Buildings or Structures within the Study Area

No.	Structure/ Building Name	S = A/A+H+C&S+C	Significance Score	Significance Level	Band
1.2	North Grandstand, 200 Turf Club Road	6+2+3+3	14	Exceptional	1
1.1	South Grandstand, 200 Turf Club Road	4+3+3+3	13	Exceptional	1
6	Duplex Flat, 192 Turf Club Road	6+2+0+2	10	Moderate	2
7	Secretary's Bungalow, 198 Turf Club Road	4+3+0+3	10	Moderate	2
16.1	Bukit Timah Saddle Club, 51 Fairways Drive	4+1+2+1	8	Moderate	2
T1	Main Track	0+3+2+3	8	Moderate	2
2	Car Park, 210 Turf Club Road	2+0+0+1	3	Low	3
17	Fairways Bungalow, 55 Fairways Drive	2+0+0+1	3	Low	3
18.1	Labourers' Quarters, 53 Fairways Drive	2+0+2+0	4	Low	3
18.2	Community Centre, 55 Fairways Drive	2+0+2+0	4	Low	3
29	Horse Bridge, Fairways Drive	0+0+2+1	3	Low	3
30	Horse Bridge, Fairways Drive	0+0+2+1	3	Low	3
T2	Parade Ring	0+2+0+2	4	Low	3
16.2	Stables, 51 Fairways Drive	2+0+0+0	2	Neutral	3
19	Hay Barn	2+0+0+0	2	Neutral	3
23	Basketball Court Shelter, 100 Turf Club Road	0+0+2+0	2	Neutral	3
24	Sheltered Sporting Arena, 100 Turf Club Road	0+0+2+0	2	Neutral	3
26	Indoor Sporting Arena, 100 Turf Club Road	0+0+2+0	2	Neutral	3
T3	Exercise Ring	0+0+0+2	2	Neutral	3
T5	Bukit Timah Saddle Club Track	0+0+0+2	2	Neutral	3
L1	Horse Pastures	0+0+0+1	1	Neutral	3
L2	Forested Knoll	0+0+0+1*	1	Neutral	3
25	Container Blocks, 100 Turf Club Road	0+0+0+0	0	Intrusive	3
31	Abandoned Hot Walker, Fairways Drive	0+0+0+0	0	Intrusive	3

Table 4.3: Summary of assessment score for buildings and structures within study area

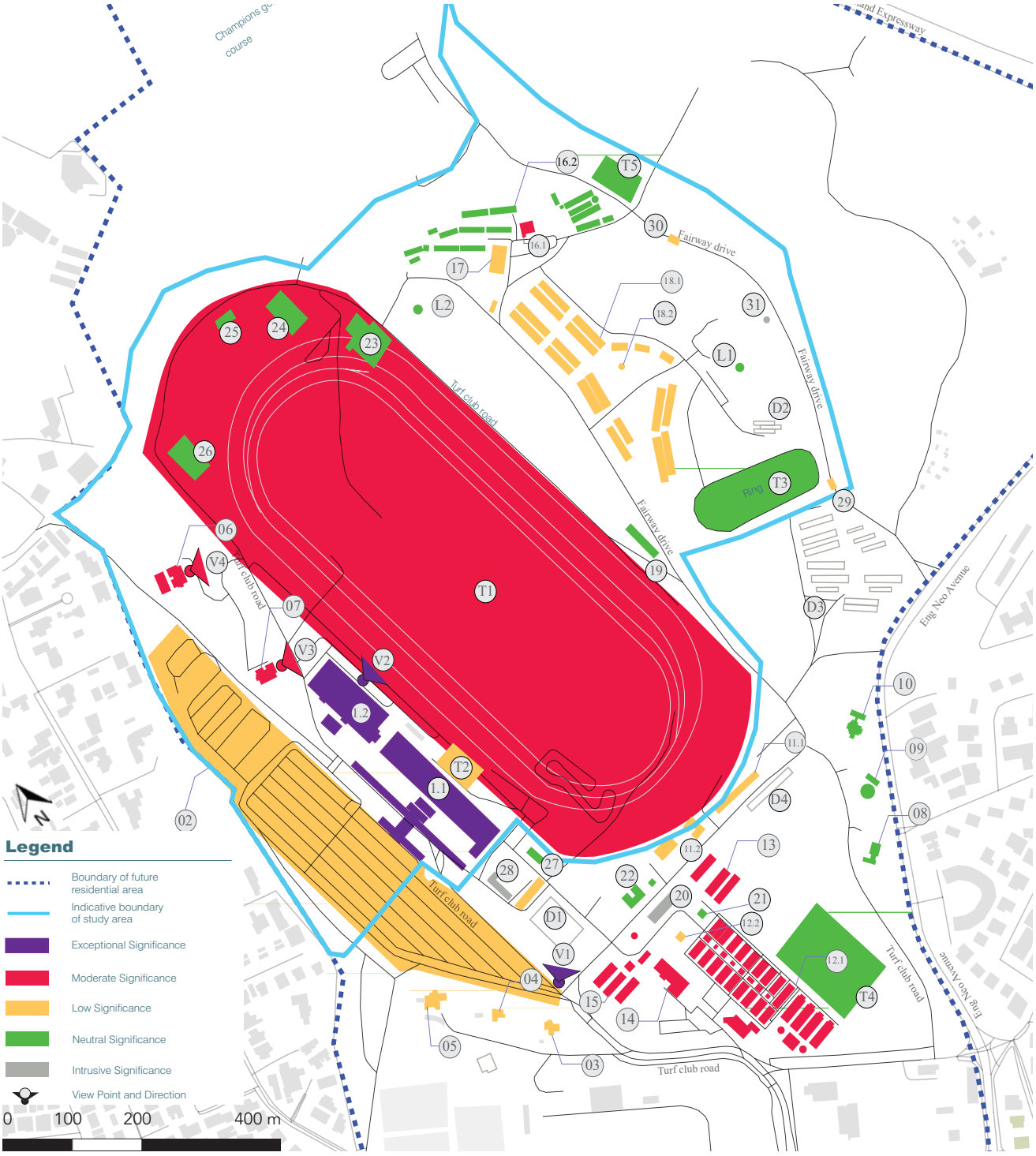


Figure 4.25 Location plan showing the significance of individual buildings/structures/spaces as per their significance score, colour coded to match with Table 4.3.

* For the definition of significance level, refer to Table 1.5.

5.0 Statement of Significance

5.1 Significance Summary

STC was originally a private, but later publicly-owned, institution devoted to horse racing. It was also for a time an agent of the Tote Board. For the purposes of assessing significance, it can be treated independently, as well as synonymously with, the place in which its activities were conducted. Whereas the STC moved to its present site at Kranji in 1999, and which remains current, the subject of this study is the former site of the STC at Bukit Timah Racecourse, a site that has been adapted as a multi-purpose leisure venue, which retains the former North Grandstand built in 1981 and numerous other buildings, some of which have been adapted to other uses.

The racecourse at Bukit Timah is one of three such courses; the first was at today's Farrer Park (1843 - 1927); the second at Bukit Timah (1933 - 1999) and the third (and current) at Kranji (1999 -). It follows from this narrative that events that are important to an understanding of cultural significance will have occurred at locations other than Bukit Timah, the subject of this study. In order to capture these, they are treated in this report as intangible heritage values.[95]

The establishment of the 244-acre Bukit Timah racecourse in 1927 was from land purchased from the Bukit Timah Rubber Estate at a cost of SGD850,000. Its creation was necessary to capture an increasing demand for racing. The racecourse was strategically positioned off one of Singapore's oldest and longest roads, Bukit Timah Road which was built to connect the bustling town of Bukit Timah to the lush rainforests and nature reserve to the north.

The principal significance of Bukit Timah Racecourse lies in its association with horse racing and its development as a popular spectator sport from the early 1930s until 1999. In this relatively short period, horse racing gained considerable popularity and with that substantial investment in buildings, racecourse facilities, new technology and operational and administrative improvement. Its heritage values are wide ranging: aesthetic - substantial new buildings in a set-piece context with distant views beyond the site boundaries; historical – staging the first race featuring a female jockey; a visit by Her Majesty The Queen and other members of the Royal Family; its use as a military hospital by both British and Japanese Forces during WW2; social – admission of the public and consequently wide popularity, non-restricted membership of the STC, contribution to good causes, association with the STC and with notable individuals; and scientific – innovations in technology related to horse racing. It is important to note therefore that the site is no longer in use as a racecourse and that this materially affects its significance.

95 The primary description of significance tends to rely upon a place or object (usually but not always a building or site). However, interest in intangible heritage has grown in importance in recent years. This is helpful when considering events that occur in another place (which may have been "lost" to redevelopment for example). In this case, the roles of Farrer Park and Kranji in the development of horse racing contributes indirectly to the significance of Bukit Timah through its association with horse racing – its primary significance – and therefore intangibly. This does not prevent significance accruing to the other sites but to rely on this to account for the cultural significance of the events that occurred there would in practical terms risk losing them. Accounting for them in the assessment of Bukit Timah Racecourse as intangible elements enables them to be acknowledged. Further, it does not prevent them being acknowledged additionally in association with Farrer Park and Kranji.

It is therefore important to note that the site is no longer in use as a racecourse and that this materially affects its significance. That said, the racecourse at Bukit Timah has survived reasonably intact, and clearly retains strong evidence of its former and original use. A significant component of this lies in the site's openness and distant views, which would be at risk of being compromised by new development.

The extant racecourse elements broadly are of moderate value. Alongside the principal racecourse features, the other buildings and features are also of principally moderate value as they provide both spatial and physical connections with the site's association with equestrian and racing use.

The grandstands and the racetrack were by default designed to relate closely to one another. It follows therefore that neither the grandstand nor the racecourse makes sense spatially without the other. When considering plans for future development it is therefore imperative that this relationship is considered.

The extant buildings are a valuable resource as individual buildings in their own right, and more importantly as a group in the context of Bukit Timah Racecourse, where they are able to help bring the area to life and allow the local community, businesses, and visitors to better understand and appreciate the important events and developments that have occurred during the relatively short existence of the site as a publicly accessible racecourse from 1960 to 1999.

In most cases, the original features, and characteristics of each of the built assets are readily identifiable and therefore their significance can be recognised and properly understood. However, later alterations have inevitably occurred as the buildings have evolved and developed during the 20th century – the significance of such later alterations and accretions are therefore of limited value. At present, it would be reasonable to say there is not severe harm to the heritage values historically – the principal loss being the transfer of horse racing to Kranji – but at the same time it is too early to claim that the heritage values are being redefined by the new uses. The site is capable of retaining its current heritage values subject to ongoing care and sensitivity in the maintenance and management of the site. Reference to the available photographic evidence suggests that the site and individual buildings are suffering the effects of poor site management that is manifest in cluttered spaces, particularly adjacent to buildings.

The establishment and development of STC and the racecourse at Bukit Timah were part of a trend of the period that was reflected in other parts of SE Asia and further afield in Australia, North America and the United Kingdom. The racecourse design was typical of many, being strictly geometrical in its layout. The establishment and early years of the STC were due to the personal enthusiasm of wealthy men, many of whom were merchants. This too was typical of the period since the trading opportunities

that generated substantial personal wealth were occurring globally thanks to developments in technology, particularly as it affected intercontinental transport.

More locally, the STC and Bukit Timah Racecourse were by association highly significant. The business was highly successful and due to the admission of the public in later years it became very popular. Through this, Bukit Timah Racecourse accrued a high degree of social significance. It also acquired a moderate aesthetic significance that arose from the investment in substantial buildings. Overall, it played a significant part in the life of Singapore at a time when the country had quite recently become independent, from both social and recreational aspects as well as itself being a local landmark. The North Grandstand in particular embodied an enterprising spirit that was outward-looking and ambitious for the future. This building represents both the high point of horse racing in terms of the capacity that it provided and the self-confidence of an architectural style that was internationalist rather than colonial.
Four key viewpoints were identified as being significant - see Figure 4.24. The first viewpoint is from the entrance to the site, while the second one is from the North Grandstand looking towards the main track and the open-air landscape beyond. Both are identified as with exceptional significance. The rest two key viewpoints are from the Duplex Flat (Former Secretary's Bungalow, Building No.6) and Secretary's Bungalow (Building No.7), however, their significance is moderate due to their private nature.

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6.0 Preliminary Character-defining Elements

6.1 Criteria

This section provides a preliminary summary description and analysis of the significance of individual elements of the site (commonly known as Character Defining Elements (CDEs)). These elements may include spaces, architectural details, landscape elements or any other individual features of the site. The table is intended to provide a summary understanding of the site and help to gauge impacts, inform policies and to guide future decisions for any change.

Five levels of significance have been used to describe the elements individually as set out in table 1.5. The criteria used to assess the significance of each element are the values described in sections 1.3.1 - 1.3.4. Each entry in the schedule is accompanied by a photograph of a sample of the item described. Similar examples of each item can be seen by observation.

This schedule of Character-defining Elements is prepared based on the currently available information and it focuses on only those buildings, structures, and spaces that are located within the study area.

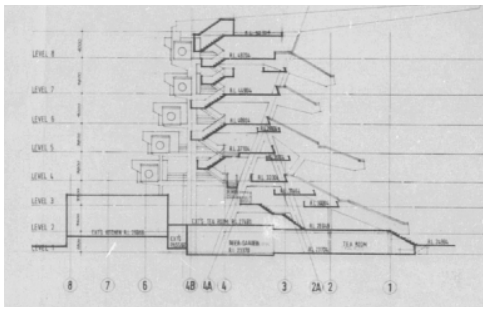
6.2 Schedule of Character-defining Elements

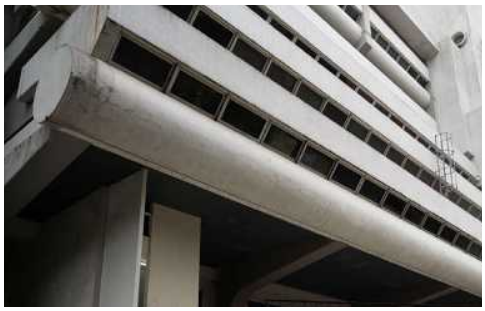
Building No. 1.1 South Grandstand

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Exterior			
1.1.1	Exterior (overview)		Exceptional
1.1.2	Original 1933 fabric		Exceptional
1.1.3	1956 alterations, comprising longitudinal extensions on both sides, two additional VIP boxes, refreshment facilities, sitting area and new totalisator points		Moderate
1.1.4	1981 alterations comprising roof modification, additional storey, replacement bell tower and private spectator booths		Moderate
1.1.5	Post 2000s alterations comprising fabric including shops on the west side, enclosure of balconies and landscape reconstruction		Intrusive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
1.1.6	1980 Landscape re-design at the entrance		Moderate
1.1.7	Clock mechanism (subject to further verification of whether the existing mechanism is original)		Moderate
Interior			
1.1.10	Interior (overview)		Low

Building No. 1.2 North Grandstand

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Exterior			
1.2.1	Exterior (overview)		Exceptional
1.2.2	Modernist and Functional Architecture		Exceptional
1.2.3	Large cantilever concrete roof		Exceptional
1.2.4	Geometry of the structural design and exploitation of reinforced concrete		Exceptional
1.2.5	The combination of mosaic, painted fair-faced concrete and tile as external finishes		Moderate

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
1.2.6	Overall seating deck design including the metal railing, tiled flooring and mosaic parapet wall.		Moderate
1.2.7	Rear staircase design including the metal railing and tile and mosaic finishes		Moderate
1.2.8	Circular and cylindrical elements on the side and rear elevation		Moderate
1.2.9	Linear and angled window design to respond local climate requirements		Moderate
1.2.10	Later intervention including the addition of Executive Boxes		Intrusive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Interior			
1.2.11	Interior (overview)	  	Moderate - Low
1.2.12	Later renovated tenants' space		Neutral
1.2.13	Interior of the Executive Boxes		Neutral

Building No. 2 Car Park

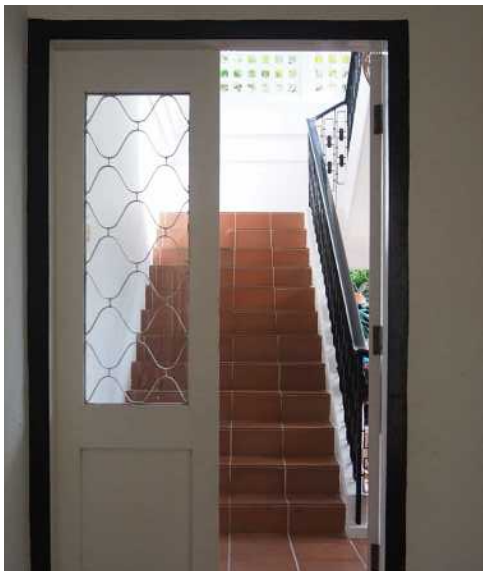
ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Exterior			
2.1	Continuous use of car park (from original open-air to multi-storey car park)		Low
2.2	1987 Multi-storey car park including the coved edge profile and round columns		Neutral
2.3.a	1933 Bridge		Moderate
2.3.b	1980 Modification of the 1933 bridge, notably the alteration of the roof structure and the loss of the pilasters		Intrusive
2.4	1987 Bridge and large-span of steel roof		Neutral

Building No. 6 Duplex Flat, 192 Turf Club Road

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Exterior			
6.1	Exterior (overview)		Moderate
6.2	Tiled pitch roofs with broad eaves		Moderate
6.3	Chimney stacks		Low
6.4	Roughcast render as external finishes		Low
6.5	Porch design with arched openings on G/F *Note: covered roof is suspected to be later addition*		Moderate

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
6.6	Balcony design with simplified columns on top of pre-cast cement balustrade and solid parapet wall		Moderate
6.7	Timber windows		Low
6.8	Terracotta floor tiles		Low
6.9	Pre-cast concrete balustrade design		Low
6.10	Later additions including enclosure of original balcony		Intrusive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
6.11	Annexe block with kitchen and servants' quarters		Low
6.12	Covered walkway connecting to Annexe block with simplified column design, rendered grilles and profiled plinth		Moderate
6.13	Pavilion		Low
6.14	Spacious entrance with soft landscape and private road access to the bungalow		Low
Interior			
6.15	Interior (overview)		Low

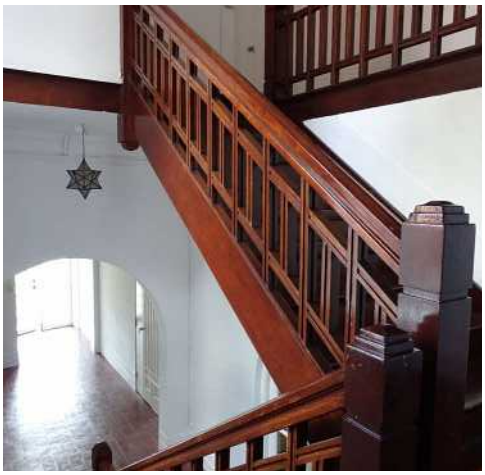
ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
6.16	Timber floor boards		Low
6.17	Timber joinery doors and windows (including patterned metal grilles)		Moderate
6.18	Staircase design with terracotta floor tiles, decorative metal balusters and timber handrail		Moderate

Building No. 7 Secretary's Bungalow, 198 Turf Club Road

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Exterior			
7.1	Exterior overview and the setting of the building		Moderate
7.2	Tiled pitched roofs with broad eaves and exposed purlins	 	Moderate
7.3	Chimney stacks		Low
7.4	Smooth painted render as external finishes		Low

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
7.5	Later addition of verandah space including tiled flooring, roof and outer columns		Intrusive
7.6	Later addition of external staircase		Intrusive
7.7	Timber windows (not original) *Note: existing photo (above) and historic photo (below)*	 	Neutral
7.8	Historic ventilation grilles (some were blocked)		Low

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
7.9	Pre-cast concrete balustrade design		Low
7.10	Older timber windows		Low
7.11	Annexe block		Low
7.12	Spacious entrance with soft landscape, private road and metal gates		Low
Interior			
7.13	Interior (overview)		Moderate

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
7.14	Moulded cornice and ceiling design		Moderate
7.15	Timber staircase with timber balustrade and newel post		Moderate
7.16	Internal joinery (including ironmongery)		Moderate
7.17	Exposed roof soffit with tiles, timber rafters and purlins		Low
7.18	Tiled flooring with timber parquet in the middle *Note: timber parquet is suspected to be later addition subject to further investigation*		Low

Building No. 16.1 Club House, 51 Fairways Drive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Exterior			
16.1.1	Exterior overview and the setting of the building		Moderate
16.1.2	Tiled pitched roof with large eave projection and associated timber roof structure		Low
16.1.3	Chimney stack		Low
16.1.4	Original timber joinery doors and louvres		Moderate
16.1.5	Modern intervention including extension on the northeast, canopies		Intrusive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
16.1.7	Historic timber panelled doors		Low
Interior			
16.1.8	Interior (overview)		Neutral
16.1.9	Internal staircase		Low
16.1.10	Decorative metal screen and door		Neutral

Building No. 16.2 Stables, 51 Fairways Drive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
16.2.1	Exterior (overview)		Moderate
16.2.2	Tiled pitched roof with large eave projection and associated steel roof structure		Low
16.2.3	Brick partition between horse stalls		Low
16.2.4	Access road and fencing		Low

Building No. 17 Fairways Bungalow, 55 Fairways Drive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Exterior			
17.1	Exterior overview and the setting of the building		Moderate
17.2	North wing (with extensive alterations)		Low
17.3	Tiled pitched roof with large eave projection and associated roof structure		Low
17.4	Replacement windows and doors		Intrusive
17.5	Roughcast render finish		Low

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Interior			
17.6	Interior (overview)		Neutral
17.7	Internal staircase		Low
17.8	Timber boarded ceiling		Intrusive
17.9	Traditional fluted Doric columns		Moderate

Building No. 18.1 Labourers' Quarters, 53 Fairways Drive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
18.1.1	Exterior overview and the settings of the buildings	 	Low
18.1.2	Tiled pitched roof with large eave projection and associated roof structure		Low
18.1.3	Chimney stacks		Low
18.1.4	Steel windows with coloured translucent glass		Low

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
18.1.5	Ventilation grilles on gable ends		Low
18.1.6	Screens with ventilation blocks		Low

Building No. 18.2 Community Centre, 53 Fairways Drive

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Exterior			
18.2.1	Exterior (overview)		Low
18.2.2	Tiled pitched roof with large eave projection and associated timber roof structure		Low
18.2.3	Red clay tiles imported from "Guichard Carvin et Cie from Marseille St. Andre" .		Low
18.2.4	Timber joinery windows and doors		Low

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
Interior			
18.2.5	Interior (overview)		Low

Building No. 19 Hay Barn

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
19.1	Exterior (overview)		Neutral
19.2	High-pitched roof with multiple tiers, supported by wooden brackets		Low
19.3	Brick retaining walls with weep holes		Neutral

Building No. 23 Basketball court shelter, Turf Club Road

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
23.1	Exterior (overview)		Neutral

Building No. 24 Sheltered sporting arena, Turf Club Road

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
24.1	Exterior (overview)		Neutral

Building No. 25 Container blocks, Turf Club Road

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
25.1	Exterior (overview)		Intrusive

Building No. 26 Indoor sporting arena, Turf Club Road

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
26.1	Exterior (overview)		Neutral

Building No. 29 Horse Bridge No. 1

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
29.1	Concrete bridge with metal balustrade covered by heavy vegetation (overview)		Low

Building No. 30 Horse Bridge No. 2

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
30.1	Concrete bridge with ramps and metal balustrade (overview)		Low

Building No. 31 Abandoned Hot Walker

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
31.1	Exterior (overview)		Intrusive

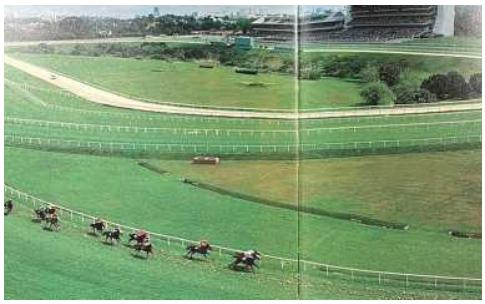
Building No. L1 Horse Pastures

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
L1.1	Exterior (overview)		Neutral

Building No. L2 Forested Knoll

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
L2.1	Exterior (overview)		Neutral

Track No. T1 Main Track

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
T1.1	Configuration of historical racecourse and the relationship with South and North Grandstand as expanded in the early 1980s		Exceptional
T1.2	Shape and layout of the racetrack		Moderate
T1.3	Naturalised landscape within and beyond the site boundary		Moderate
T1.4	Later modification to the racecourse, including all sports facilities and temporary structure (Building No.23, 24, 25 and 26) within the racecourse		Intrusive
T1.5	Ravine inclusive of landscape, cycle tracks and drainage inside		Moderate
T1.6	Cycle Tracks		Neutral

Track No. T2 Parade Ring

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
T2.1	Round podium (overview)	 	Moderate
T2.2	Original balustrade design		Low
T2.3	Later added low brick wall		Intrusive
T2.4	Tiled flooring		Low

Track No. T3 Exercise Ring

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
T3.1	Overview		Neutral

Track No. T5 Bukit Timah Saddle Club Track

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
T5.1	Overview		Neutral

Key view No.1

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
V.1	View from the site entrance looking towards the two grandstands (Building 1.1 and 1.2) and the main track (T1)		Exceptional

Key view No.2

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
V.2	View from North Grandstand (Building No. 1.2) seating looking towards the main track (T1) and open landscape beyond.		Exceptional

Key view No.3

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
V.3	View from Former Deputy Secretary's Bungalow (Building No. 7) looking towards the main track (T1)		Moderate

Key view No.4

ELEMENT NO.	DESCRIPTION	PHOTO	SIGNIFICANCE
V.4	View from Duplex Flat (Building No. 6) looking towards the main track (T1)		Moderate

7.0 Conservation Principles

Overview

This section relates only to the construction of the proposed CR14 station and associated infrastructure works. The assessment of the overall redevelopment for the Turf City area is being carried out and will be set out in a separate report.

7.1 Conservation standard and international charters

The establishment and implementation of this heritage analysis will generally follow the standards of the following international charters and their conservation principles:

1. Venice Charter (1964) (International Charter for the conservation and restoration of monuments and sites) – the most fundamental principles and international standards for conservation and restoration of heritage buildings and sites adopted by UNESCO (United Nations of Education, Science and Cultural Organization) and ICOMOS (International Council of Monuments and Sites).
2. Conservation Principles (2008) The policies and guidance in this document by the English Heritage provides a comprehensive framework for the sustainable management of the historic environment.
3. Burra Charter (2013) (The Australia ICOMOS Charter for Places of Cultural Significance) – the latest version of a worldwide recognised standard of establishment and implementation of conservation adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) since 1979. This Charter guides the conservation and management of places of cultural significances (cultural heritage places).
4. China Principles (2015) (Principles for the conservation of heritage sites in China) – developed based on the experience of Australia and the United States in heritage conservation and local condition of China.

7.2 Definition of terms

This section defines the terms that are used in the Burra Charter (2013) except as noted otherwise. Only those terms that are applicable to this study are included.

7.2.1 General

The definitions can be found in Article 1 'Definition' of the Burra Charter (2013) and other sources as specified:

- ***Place*** means a geographically defined area. It may include elements, objects, spaces and views. The place may have tangible and intangible dimensions.
- ***Cultural significance*** means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.
- ***Fabric*** means all the physical material of the place, including elements, fixtures, contents and objects.
- ***Conservation*** means all the processes of looking after a place so as to retain its cultural significance.
- ***Maintenance*** means the continuous protective care of a place, and its setting. Maintenance is to be distinguished from repair which involves restoration or reconstruction.
- ***Preservation*** means maintaining a place in its existing state and retarding deterioration.
- ***Restoration*** means returning a place to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.
- ***Reconstruction*** means returning a place to a known earlier state and is distinguished from restoration by the introduction of new material.
- ***Adaptation*** means changing a place to suit the existing use or proposed use.
- ***Use*** means the functions of a place, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.
- ***Compatible use*** means a use which respects the cultural significance of a place. Such use involves no, or minimal, impact on cultural significance.
- ***Setting*** means the immediate and extended environment of a place that is part of or contributes to its cultural significance and distinctive character.
- ***Related place*** means a place that contributes to the cultural significance of another place.
- ***Related object*** means an object that contributes to the cultural significance of a place but is not at the place.
- ***Associations*** mean the connections that exist between people and a place.
- ***Meanings*** denote what a place signifies, indicates, evokes or expresses to people.
- ***Interpretation*** means all the ways of presenting the cultural significance of a place.
- ***Character-defining elements*** mean the materials, forms, location, spatial configurations, uses and cultural associations or meanings that contribute to the heritage value of a historic place, and which must be retained in order to preserve its heritage value. [96]
- ***Authenticity*** means heritage resource that is materially original or genuine as it was constructed and as it has aged and weathered in time.[97]

96 Parks Canada (2010). Standards and guidelines for the conservation of historic places in Canada. Canada.
97 Feilden, B M and Jokilehto, J (1998). Management guidelines for world cultural heritage sites. Paris: ICCROM.

7.3 Applying the Burra Charter and other international conservation principles

In this section, the conservation principles governing the conservation processes and practice are extracted from the Burra Charter (2013) and others as specified. These provide the basis for description, assessment and guidance for the identification, impact and any mitigation of character-defining elements and heritage values.

Burra Charter

Article 14 Conservation processes

Conservation may, according to circumstance, include the processes of: retention or reintroduction of a use; retention of associations and meanings; maintenance, preservation, restoration, reconstruction, adaptation and interpretation; and will commonly include a combination of more than one of these. Conservation may also include retention of the contribution that related places and related objects make to the cultural significance of a place.

Article 16 Maintenance

Maintenance is fundamental to conservation. Maintenance should be undertaken where fabric is of cultural significance and its maintenance is necessary to retain that cultural significance.

Article 17 Preservation

Preservation is appropriate where the existing fabric or its condition constitutes evidence of cultural significance, or where insufficient evidence is available to allow other conservation processes to be carried out.

Article 19 Restoration

Restoration is appropriate only if there is sufficient evidence of an earlier state of the fabric.

Article 20 Reconstruction

Reconstruction is appropriate only where a place is incomplete through damage or alteration, and only where there is enough evidence to reproduce an earlier state of the fabric. In rare cases, reconstruction may also be appropriate as part of use or practice that retains the cultural significance of the place. Reconstruction should be identifiable on close inspection or through additional interpretation.

Article 21 Adaptation

Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place. Adaptation should involve minimal change to significant fabric, achieved only after considering alternatives.

Article 22 New work

New work such as additions to the place may be acceptable where it does not distort or obscure the cultural significance of the place or detract from its interpretation and appreciation. New work should be readily identifiable as such.

Article 25 Interpretation

The cultural significance of many places is not readily apparent and should be explained by interpretation. Interpretation should enhance understanding and engagement and be culturally appropriate.

Article 27 Managing change

The impact of proposed changes, including incremental changes, on the cultural significance of a place should be assessed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes to better retain cultural significance. Existing fabric, use, associations and meanings should be adequately recorded before and after any changes are made to the place.

Concept of change, new work and alteration

Change may be necessary to retain cultural significance but is undesirable where it reduces cultural significance. The amount of change to a place should be guided by the cultural significance of the place and its appropriate interpretation. (Australia ICOMOS (2013), Burra Charter. Article 15)

New work or alteration to a significant place should normally be acceptable if:

a. the proposal would not materially harm the values of the place, which, where appropriate, would be reinforced or further revealed; and
b. the proposal aspires to a quality of design and execution which may be valued now and in the future. (English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management for the historic environment. Overview, Clause 14)

Changes which would harm the heritage values of a significant place should be unacceptable unless:

a. the changes are demonstrably necessary either to make the place sustainable or to meet an overriding public policy objective or need;
b. there is no reasonably practicable alternative means of doing so without harm;
c. that harm has been reduced to the minimum consistent with achieving the objective; and
d. it has been demonstrated that the predicted public benefit decisively outweighs the harm to the values of the place, considering its comparative significance; the impact on that significance, and the benefits to the place itself and/or the wider community or society as a whole. (English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management for the historic environment. Overview, Clause 15)

Conservation is the process of managing change to a significant place in its setting in ways that will best sustain its heritage values while recognising opportunities to reveal or reinforce those values for present and future generations. (English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management for the historic environment. Principle 4.2).

Considered change offers the potential to enhance and add value to places, as well as generating the need to protect their established heritage values. (English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management for the historic environment. Terms and Concepts, Clause 25)

Sustaining the value of the historic environment as a whole also depends on creating in the present the heritage of the future, through changes that enhance and enrich the values of places. (English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management for the historic environment. Managing change to significant places, Clause 96)

Owners and managers of significant places should not be discouraged from adding further layers of potential future interest and value, provided that recognised heritage values are not eroded or compromised in the process. (English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management for the historic environment. Managing change to significant places, Clause 86)

The following paragraphs address a number of principles that are spread across various charters and standard practices that are relevant to this project. They are written in the abstract in order to retain a consistent reporting format in this section of the report.

7.3.1 Conserve heritage values

- *Conserve the heritage values of the historic place, and respect any changes that have occurred over time, particularly those that convey significant value. Thus, it is not necessary to return to the original period of the building when it was first erected. Only remove or replace physical fabric that has been substantially altered which diminishes heritage value.*
- *If necessary, protect, preserve, or stabilise the historic place and the building fabric in place, until any subsequent intervention is undertaken.*
- *Restore any deformed, collapsed, or misplaced components.*
- *Later additions that are considered to be of no significance or are intrusive should be removed.*

7.3.2 Authenticity

- *Respect the original character or architectural style of the building fabric and retain its traditional building materials or construction system so far as is feasible.*
- *Recognize each historic place as a physical record of its time, place and use.*
- *Do not create a false sense of the historical narrative by adding elements from other historic places or by combining features of the same property that never co-existed.*

7.3.4 Reversibility

- *Keep any treatment of or intervention into the building fabric to the minimum and seek to do so in a way that is reversible.*
- *Make any intervention physically and visually compatible and identifiable upon close inspection and document any intervention for future reference.*
- *Any intervention (either as new uses, alterations or replacement of materials and components) should seek to preserve or enhance the heritage value and not to compromise the significance of the place.*

7.3.5 Repair rather than replace

- *Existing materials and components should be repaired and retained where it is feasible to do so. Replacement should be carried out only where there is no practical alternative.*

7.3.6 Integrating old and new

- *New interventions, where it is overall beneficial to the future of the heritage asset, should be designed to compliment the building or site. This may include the enhancement of heritage value (for example, by providing access to an area of interest that would otherwise be unseen) or by sensitivity toward the selection of forms and colours in the new work.*

7.3.8 Managing change

- *Change should be incremental and limited to circumstances that are essential to the long-term sustainability of the place and subject to compliance with all other conservation principles described here.*

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8.0 Conservation Guidelines

This section formulates a set of specific guidelines for planning and designing the planned infrastructure works at the former Bukit Timah Racecourse, which comprises the construction of CR14 station and the temporary construction access or future road under study. At the time of writing, other works that may impact heritage assets are also not known. This report will therefore need to be reviewed and updated as necessary when the full extent of works is known.

At this stage, the infrastructure works require the demolition of two buildings of neutral significance, and potential modification of the footprint of the racetrack (T1). In addition, there will be temporary construction works, including "open-cut" excavation in the vicinity of retained buildings and below-ground tunnelling works. These buildings will need to be protected and monitored throughout the construction period of the infrastructure works.

8.1 Background

1. Racing at former Bukit Timah Racecourse ceased in 1999. The existing buildings and structures that supported the racing operations were retained and adapted to new uses.
2. Existing buildings at former Bukit Timah Racecourse mainly were built in concentrated periods, during the 1930s, 1950s and 1980s. By the time of its closure as a racecourse, the site had acquired three generations of buildings, from the pre- and post-War and post-independence periods.
3. The guidelines set out in this report seek to take account of a range of considerations but they are principally those of the conservation consultant. Other considerations, for example of adaptive reuse, statutory requirements, structural limitations, environmental issues, are subject to the advice of experts in those fields. Due to the large scale of the site, there is a need to break down the interpretation of heritage values into a number of component parts so that the public and other stakeholders may better understand the site. The interpretation plan therefore consists of a site-wide plan together with more detailed plans which can be implemented as part of the infrastructure proposal.

8.2 Conservation goals

The initial goals set out below are written in expectation that there is minimal change during the infrastructure works. This section will however be critical in any future redevelopment plan where the conservation goals are expected to inform and help to manage change.

1. To recognise and respect the significance of the former Bukit Timah Racecourse in history and the development of the site with buildings of different periods and contexts.
2. To mitigate the impact of the infrastructure development on the retained buildings, structures, and open spaces, to create compatible elements that enhance and interpret the history and physical attributes of the retained features of the site.
3. To set a framework to guide any future development within the site, including the planning and design of the infrastructure works.

8.3 Overall conservation approach

1. The setting of the former Bukit Timah Racecourse site is primarily established by the location of the buildings and their relationship to the racecourse. This is therefore a key feature that should be retained so far as is feasible. It offers potential to create a unique characteristic in the context of the future development. The proposed works includes an enhanced sense of arrival by constructing a new railway station. It is imperative that the placement of the station entrance, and the associated road works, should seek to take advantage of this opportunity and to respect the characteristics of the race track and immediate surroundings, most notably its openness.
2. Two buildings (16.2 – Stables and 19 – Hay barn) will be demolished as a result of the infrastructure works. All other retained buildings in the vicinity will need to be protected and monitored throughout the construction operations, most notably during the excavations for the railway tunnel construction, construction of the station entrances, and construction of the temporary construction access road. A protection plan should be developed jointly with the contractor. As outlined in the impact assessment (see section 9.0), it is expected that the retained buildings will be adapted to new uses and modernised where necessary. The new uses should be compatible with the heritage values of the buildings. The removal of unsympathetic alterations and additions is encouraged. Some further demolition of buildings, structures and open spaces would be acceptable provided always that it is in order to improve the site's long-term sustainability.
3. Apart from the extensive below-ground works, the infrastructure works comprises freestanding station entrances and temporary construction access. The new buildings should be of their time but also respectful of the existing retained buildings, the existing landscaping and topography. As the station entrance design emerges, heritage and visual impact assessments should be completed.
4. Prior to any construction works, including temporary works, the buildings, structures, and open spaces located within the affected study area should be recorded by means of photographic and cartographic surveys.
5. For those buildings and structures to be demolished or altered, it is recommended to salvage character defining elements including any historical artefacts identified within this report or during the further surveys noted above, for re-use and/or interpretation where feasible.
6. It is recommended that a pre- and post-construction survey should be carried out to record the condition of the retained buildings and structures. The condition should also be inspected regularly during the excavation works, includng tunnelling works.

8.4 Sitewide guidelines

The former Bukit Timah Racecourse is distinctive in that the site was partially cleared and remodelled to construct the main racetrack (T1) and the South Grandstand (1.2). The supporting facilities, such as the stables, residences, training tracks were by contrast built on the land "as-found" and therefore set in a more naturalised landscape. The placement of future additions to the site, including the station entrances, should consider the particular character of this place and its landscape.

Guiding conservation principles

Historic England (2019), Conservation area appraisal, designation and management

Setting and views

Heritage assets can gain significance from their relationship with their setting whilst views from within or outside an area form an important way in which its significance is experienced and appreciated.

Historic England (2017), The settings of heritage assets

Setting and the significance of heritage assets

The setting is not itself a heritage asset, nor a heritage designation, although land comprising a setting may itself be designated. Its importance lies in what it contributes to the significance of the heritage asset or to the ability to appreciate that significance.

Australia ICOMOS (2013), Burra Charter

Article 8, Setting

Conservation requires the retention of an appropriate setting. This includes retention of the visual and sensory setting, as well as the retention of spiritual and other cultural relationships that contribute to the cultural significance of the place.

Article 25, Interpretation

The cultural significance of many places is not readily apparent and should be explained by interpretation. Interpretation should enhance understanding and engagement, and be culturally appropriate.

Article 24, Retaining associations and meanings

Significant associations between people and a place should be respected, retained and not obscured. Opportunities for the interpretation, commemoration and celebration of these associations should be investigated and implemented. Significant meanings, including spiritual values, of a place,should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management of the historic environment

Principle 3.2

The significance of a place embraces all the diverse cultural and natural heritage values that people associate with it, or which prompt them to respond to it. These values tend to grow in strength and complexity over time, as understanding deepens and people's perceptions of a place evolve.

Principle 3.3

In order to identify the significance of a place, it is necessary first to understand its fabric, and how and why it has changed over time; and then to consider:

- *who values the place, and why they do so;*
- *how those values relate to its fabric;*
- *their relative importance;*
- *whether associated objects contribute to them;*
- *the contribution made by the setting and context of the place; and*
- *how the place compares with others sharing similar values.*

Principle 3.4

Understanding and articulating the values and significance of a place is necessary to inform decisions about its future. The degree of significance determines what, if any, protection, including statutory designation, is appropriate under law and policy.

Principle 4.2

Conservation is the process of managing change to a significant place in its setting in ways that will best sustain its heritage values while recognising opportunities to reveal or reinforce those values for present and future generation.

Proposed conservation guidelines [98]

Preservation

- Spatial character, the setting around extant buildings and structures, the relationship between different levels, and the outlook from the buildings at the periphery of the new station entrances, all potentially form an essential way in which the former Bukit Timah Racecourse significance might be experienced and appreciated in the future. The ability to discern these spatial relationships should be maintained as far as practicable to preserve heritage value. It also offers potential to assist navigation and wayfinding and to convey a unique characteristic to the site.
- Sensitive integration of the new permanent access road (under study) is vital to conserve the sense of place associated with the racetrack. The placement of the new road has the potential to create new vantage points to appreciate the existing historic buildings, particularly the grandstands from locations that historically weren't accessible. However, it is important that this maintains a sense of the primacy of the racetrack as a space.
- The prominent open space and the outline of the main racetrack (T1) should be maintained as far as practicable. As a minimum, the inner track footprint should be preserved, and where its definition has been lost, it should be reinstated. The inner track should be kept in its current location to preserve the spatial relationship with the retained grandstands.

New development

- Changes to the historic environment at the former Bukit Timah Racecourse site is acceptable if it is informed by the historical context. Additions and new buildings (for example station entrances) should be both contemporary and compatible with any heritage assets in the vicinity. This approach will create a readable narrative and minimise adverse impacts.
- New development on the site should respect the orientation, alignment, proximity, and views of significant retained historic buildings.

Reasons for the proposed guidelines

- Hence, keeping the spatial relationship between the racetrack, grandstand and supporting operational facilities can mitigate the physical impact on the setting. This will be an important contributor to effective interpretation of the site's heritage values.

98 The proposed conservation guidelines are not statutory requirements. They are intended to inform planning and design policies for development of the former Bukit Timah Racecourse.

8.5 Building guidelines

8.5.1 External building fabric

Except for the proposed partial demolition of the Horse stables (16.2) within the proposed contractors worksite D, and the Hay Barn (19), as well as the potential partial demolition of the main racetrack (T1) to accommodate the temporary construction access, there are no planned works on the extant buildings and structures. Any such works that emerge should be subject to further scrutiny and the application of conservation guidelines. The following is an initial set of guidelines which should be considered for adoption.

Guiding conservation principles

Australia ICOMOS (2013), Burra Charter

Article 15.1

Change may be necessary to retain cultural significance but is undesirable where it reduces cultural significance. The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation.

Article 15.2

Changes which reduce cultural significance should be reversible and be reversed when circumstances permit.

Article 15.3

Demolition of the significant fabric of a place is generally not acceptable. However, in some cases, minor demolition may be appropriate as part of conservation. The removed significant fabric should be reinstated when circumstances permit.

Article 15.4

The contributions of all aspects of the cultural significance of a place should be respected. If a place includes fabric, uses, associations or meanings of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management of the historic environment

New work or alteration

New work or alteration to a significant place should normally be acceptable if:

a. *there is sufficient information comprehensively to understand the impacts of the proposal on the significance of the place;*
b. *the proposal would not materially harm the values of the place, which, where appropriate, would be reinforced or further revealed;*
c. *the proposals aspire to a quality of design and execution which may be valued now and in the future; and*
d. *the long-term consequences of the proposals can,from experience, be demonstrated to be benign, or the proposals are designed not to prejudice alternative solutions in the future.*

The proposals aspire to a quality of design and execution which may be valued now and, in the future. The need for quality in new work applies at every level, from small interventions in a historic room, to major new buildings or developments. Small changes need as much consideration as large ones, for cumulatively their effect can be comparable.

Consider the potential reversibility of changes

In reality, our ability to judge the long-term impact of changes on the significance of a place is limited. Interventions may not perform as expected. As perceptions of significance evolve, future generations may not consider their effect on heritage values positive. It is therefore desirable that changes, for example, those to improve energy efficiency in historic buildings, are capable of being reversed, in order not unduly to prejudice options for the future.

Integrating conservation with other public interests

Changes which would harm the heritage values of a significant place should be unacceptable unless:

a. *the changes are demonstrably necessary either to make the place sustainable or to meet an overriding public policy objective or need;*
b. *there is no reasonably practicable alternative means of doing so without harm;*
c. *that harm has been reduced to the minimum consistent with achieving the objective; and*
d. *it has been demonstrated that the predicted public benefit decisively outweighs the harm to the values of the place, considering:*
    - *its comparative significance*
    - *the impact on that significance*
    - *the benefits to the place itself and/or the wider community or society as a whole*

English Heritage (2008), Conservation principles: Policies and guidance for the sustainable management of the historic environment

Principle 4.5

Intervention may be justified if it increases understanding of the past, reveals or reinforces particular heritage values of a place, or is necessary to sustain those values for present and future generations, so long as any resulting harm is decisively outweighed by the benefits.

Principle 4.6

New work should aspire to a quality of design and execution which may be valued both now and in the future. This neither implies nor precludes working in traditional or new ways but should respect the significance of a place in its setting.

Managing change to significant places

Keeping a significant place in use is likely to require continual adaptation and change; but, provided such interventions respect the values of the place, they will tend to benefit public (heritage) as well as private interests in it. Many places now valued as part of the historic environment exist because of past patronage and private investment, and the work of successive generations often contributes to their significance. Owners and managers of significant places should not be discouraged from adding further layers of potential future interest and value, provided that recognised heritage values are not eroded or compromised in the process.

Take account of sustainability

Significant places should be used and managed in ways that will, wherever possible, ensure that their significance can be appreciated by generations to come, an established aspect of stewardship. Sustaining the value of the historic environment as a whole depends also on creating in the present the heritage of the future, through changes that enhance and enrich the values of places. Both objectives involve the difficult task of anticipating the heritage values of future generations, as well as understanding those of our own.

Proposed conservation guidelines

Preservation

- The characteristics of the diverse range of buildings on the site, be it those that are distinctly domestic bungalows influenced by contemporary Modernism in Britain, or the simple yet impressive icon of post-independent architecture, the North Grandstand, should be maintained as far as practicable.
- Retain, salvage, and/or reuse original materials and components to preserve heritage fabric, embodied energy and to reduce construction waste, where feasible.

Alterations and additions

- Alterations or additions to extant building elevations that are considered less significant are likely to be permissible. However, they should not visually challenge or dominate the existing building.
- Alterations or additions to existing building services and systems to enhance environmental amenity and energy efficiency should be integrated sensitively and without compromising the building's main elevations.

New work

- New work should:
    a. respond sympathetically to the existing spatial character associated with the identified significant buildings;
    b. relate to the predominant scale, style, materiality and grain of the setting;
    c. respect the height, setback, bulk, density, and grain of the heritage fabric; and
    d. respond to connections and views between various existing buildings and structures.

8.5.2 Internal building fabric and spatial qualities

Currently, the infrastructure proposals will not impact the interior of any retained building or structure. The following is a set of guidelines that can be adopted to guide the future conservation for all retained buildings and structures as part of the redevelopment plan.

Guiding conservation principles

Australia ICOMOS (2013), Burra Charter

Article 7.1

Where the use of a place is of cultural significance, it should be retained.

Article 7.2

A place should have a compatible use.

Article 1.11

Compatible use means a use which respects the cultural significance of a place. Such use involves no, or minimal, impact on cultural significance.

ICOMOS China (2015), Principles for the conservation of heritage sites in China

Article 40,

Appropriate use

Appropriate use can be an important means of conserving a heritage site. Use should take into consideration the values, attributes, state of preservation and setting, as well as the possibility of the site being used for research, presentation, a continuation of original function or adaptation for appropriate modern use. Use of a site should both be sustainable and promote community wellbeing. Overuse must be avoided.

Proposed conservation guidelines

Preservation

- The general spatial organisation of each building should be maintained as far as practicable.
- Retain, salvage, and reuse original built fabric and materials to preserve embodied energy and reduce construction waste, where possible.

Alterations and additions

- Alterations or additions may be made to adapt the building to new uses in accordance with the guidance provided in the impact assessment, provided always that any structural strengthening works would not have an adverse impact on the internal layout.
- Alterations to the internal layout to suit new uses or to comply with current building regulations, would be acceptable provided they are designed to enable the original or current layout to be understood.
- Any alterations to the internal room layout should not impact on the external elevations
- Alterations, additions or renewal of existing building systems to enhance environmental amenity and sustainability performance should be sensitively integrated without compromising the room layout.

New work

- New work should respond sympathetically to the existing spatial character associated with the identified significant buildings.

Reasons for the conservation guidelines

- To preserve and maintain the significance of identified character-defining elements, which is vital for the interpretation of the original functions of the buildings. However, careful analysis of each building should enable informed decisions to be made about adaptations to suit new uses without compromising heritage value.

8.5.3 Appropriate new use

This study is limited to assessing the construction of CR14 station and associated tunnels and the temporary construction access. To ensure the long-term viability of retained heritage assets, all retained buildings are likely to require a change of use.

Informed decisions on finding appropriate new uses for the historic buildings at the former Bukit Timah Racecourse should not be driven by a business plan, but should consider the buildings' heritage significance and their capability for adaptation without requiring substantial change.

8.5.4 Physical interventions to existing building fabric for building regulations compliance

Currently, this does not apply to the planned works since there are no planned interventions in respect of extant buildings and needing to fulfill building regulation compliance. As redevelopment plans emerge, a set of guidelines that balances the need for compliance with preserving historical and cultural significance should be prepared and adopted.

8.5.5 Update building systems appropriately

The current proposed works are not expected to induce any modifications to the retained buildings and their servicing. Existing building systems are likely to be replaced. Such work should be carried out sensitively with regard to the heritage values of each building. It is likely that the approach will vary from one building to another.

Care will need to be taken during initial project design and periodic upgrades to avoid the incremental loss of integrity over time.

Proposed general guidelines

New building services and systems should be carefully designed to avoid adverse impact on the character defining elements, and to reduce visual impact as far as practicable. A more detailed set of guidelines should be prepared once the proposed new use(s) for the buildings are known.

8.6 Interpretation Strategy

Overview

Interpretation provides the means of understanding the heritage value of a site so that the sense of place may be retained or enhanced, and any negative impacts mitigated. It does this by providing information in a variety of formats and by storytelling. This interpretation strategy is prepared based on completing a historical appraisal of the entire former Bukit Timah Racecourse and is not limited to the study area identified in this report. The strategy outlines what could be integrated into the first stage of works on the site, the infrastructure development.

The infrastructure works and the construction of the proposed CR14 station will see significant visitor arrival using public transport. There is an opportunity to embed interpretation elements into the station design from the outset. This will enrich the visitors' experience and be a catalyst for development of the interpretation plan. The station itself has several spaces such as the concourse, platforms, and circulation routes where interpretation materials can be integrated.

This plan has been prepared based on materials shared by the Land Transport Authority (LTA) on 19 and 29 April 2022. It is informed by site observations, a description of the site and assessment of its heritage significance, and an impact assessment.

There are no statutory requirements relating to the production of interpretation plans in Singapore. Therefore, the production of this Interpretation Plan was guided by Article 25 of the Burra Charter, the associated practice note 'Interpretation' (Practice Note Version 1: November 2013), and the ICOMOS Ename Charter for the Interpretation and Presentation of Cultural Heritage Sites (2008).

The Australia ICOMOS Burra Charter (2013) defines interpretation as 'all the ways of presenting the cultural significance of a place'. For details of compliance with the guiding principles, refer to Section 8.8.

8.6.1 Why interpret?

Heritage is a cultural asset. As such, it belongs and relates to all people in a community and is linked to other aspects of a community's cultural traditions, the physical environment and community life. The heritage interpretation of a place should therefore connect to audiences on all cultural levels and engage them in forming their personal association with the site and a sense of place. It should be adaptable to audiences from all backgrounds, whilst respecting the culture and values of any target audiences.

The interpretation methodology is to be developed in conjunction with URA so that the interpretation is communicated effectively, using a multi-faceted approach of digital media and physical installations. It should be led by the development programme and may need to consider that elements of the plan may be implemented earlier than others, notably the content within the completed CR14 station. The plan should therefore consider the potential implications of phasing and the impacts of this on the expected audiences.

Interpretation is an opportunity to provide visitors with an experience that helps them explore the history and importance of the site in ways in that they might not be able to do on their own. It is intended to be inclusive and appropriate to a diverse demographic and on a variety of levels, be it casual visitors, academics, or enthusiasts.

Heritage interpretation will be a key component for any redevelopment project at Bukit Timah Racecourse in promoting and sharing its heritage significance with future users, local citizens and general visitors.

The Heritage Interpretation Plan is intended to encourage visitors to engage in a range of experiences with the elements that have been identified as critical to understanding of the site in the future.

> *"Interpretation refers to the full range of potential activities intended to heighten public awareness and enhance understanding of cultural heritage sites."*
>
> *ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites, 2008 (Ename Charter)*

8.6.2 Who is the audience?

To determine the most appropriate interpretation methodology for the former Bukit Timah Racecourse, it is important to identify and consider the key audience groups that will encounter the interpretive content. All audiences may be expected to visit the site purposely. Therefore, knowing the audience is key to determining the content required. The interpretation may need to cater to different audiences, and therefore different approaches or programmes may be appropriate. In any case, it is expected that long-term and short-term programmes will be required so that residents can be engaged regularly while the long-term programme is targeted at general visitors and newcomers.

A provisional list of audience groups is shown below. The groups are in no particular order.

- Residents
- General visitors for recreational purposes (both national and international)
- General visitors for social purposes
- Heritage and architectural professionals
- Special interest groups
- Academics
- Students (school)
- Students (university)
- Digital audience
- Employees who work at the site

Any presentation of the site and its history should be preceded by a thorough investigation of what stories would most interest the target audience and which methods of interpretation they would be most likely to engage with. It is therefore recommended that a questionnaire is carried out, both online and advertised via local news outlets and social media. This exploration could also engage local schools and colleges alongside any interested groups and nearby community residents.

The data collected should be analysed to identify the themes that would most appeal to a range of audiences. The primary theme could form the basis of the regular or long-term interpretative content, which can be developed into interpretation panels, guidebooks, and guided tours. Secondary and tertiary themes could be presented in a variety of formats to form a layered menu of interpretation options, such as pop-up events, collaborations with artists, etc.

The range of stories that could be told about the site and the number of interpretive techniques available to share those stories are considerable. These are discussed in more detail across this plan.

8.6.3 What have we got and why does it matter?

The following text is a brief summary of the principal historic fabric and its significance, which is discussed in detail in Chapter 4 and 5.

What have we got?

- A large and relatively intact heritage site with a rich history and associations with STC, Bukit Timah Racecourse, sports events, charitable organisations and individuals.
- A varied architecture of different typologies including grandstands, residential bungalows, stables and a range of supporting facilities from the Colonial and Modernist eras.
- A unique combination of architecture, topology and landscape.

Why does it matter?

- Exceptional aesthetic/ architectural value of the entire site as well as the two generations of grandstands.
- Exceptional historical value of STC.
- Moderate historical values including associations with two World Wars, sports events, equestrianism, charitable organisations and individuals.
- Exceptional communal and social value relating to horse racing development in Singapore.
- Other heritage values summarised in table 4.1 in Chapter 4.0.

Figure 8.1: Colonial bungalow adapted for the tropical climate

Figure 8.2: The bungalow according to Modernists

Figure 8.3: Existing view to the Main Track from North Grandstand.

Figure 8.4: Existing view looking south to the North Grandstand.

8.6.4 What can we do to respect it?

The following guidelines are recommended to ensure that heritage values are respected in the first stage of the former Bukit Timah Racecourse's future plans, the infrastructure works, and later, within the site's overall development and within the implementation of any site interpretation plan.

- Retain extant heritage assets where it is feasible to do so.
- Adapt these buildings in a manner that preserves or enhances their heritage value commensurate with achieving a sustainable new use.
- Interpret these buildings and the site at large so that current and future generations of the public might understand the heritage value of the place.
- New development should acknowledge the site's heritage value where it is feasible to do so.

8.7 Interpretation themes and stories

Site-based interpretation is beneficial to a large-scale heritage site with a multiplicity of structures, spaces and landscape characteristics. By doing so, visitors will be able to understand how the historical development of the site has led to the formation of what they see. This would combine physical and/ or virtual site/ building tours with new development.

The former Bukit Timah Racecourse stands as a physical reminder of the development of horse racing in Singapore. It is of architectural and historical significance to the country of Singapore. The heritage values identified in Chapter 4.0 will shape the interpretive themes and stories that will be communicated at the site. The aim of the interpretation is to provide the audience with:

- An appreciation of the racecourse and its place in the historical context of racing in Singapore.
- An appreciation of why the site is considered significant.
- Respect for the history of the site, its use, the people etc.

Across this section and following the archival research to date, we have outlined the primary interpretive themes, objectives, topics, and storylines that may be interpreted within the proposed station. Within the broader theme, several secondary (sub) themes have been established. It is recommended that people connected with the site are engaged during a series of consultation sessions to elicit stories that could be used to present its history and significance. Stories could be divided into two categories: overarching stories that could be incorporated in any long-term heritage interpretation and more specific stories that could be used in shorter term formats.

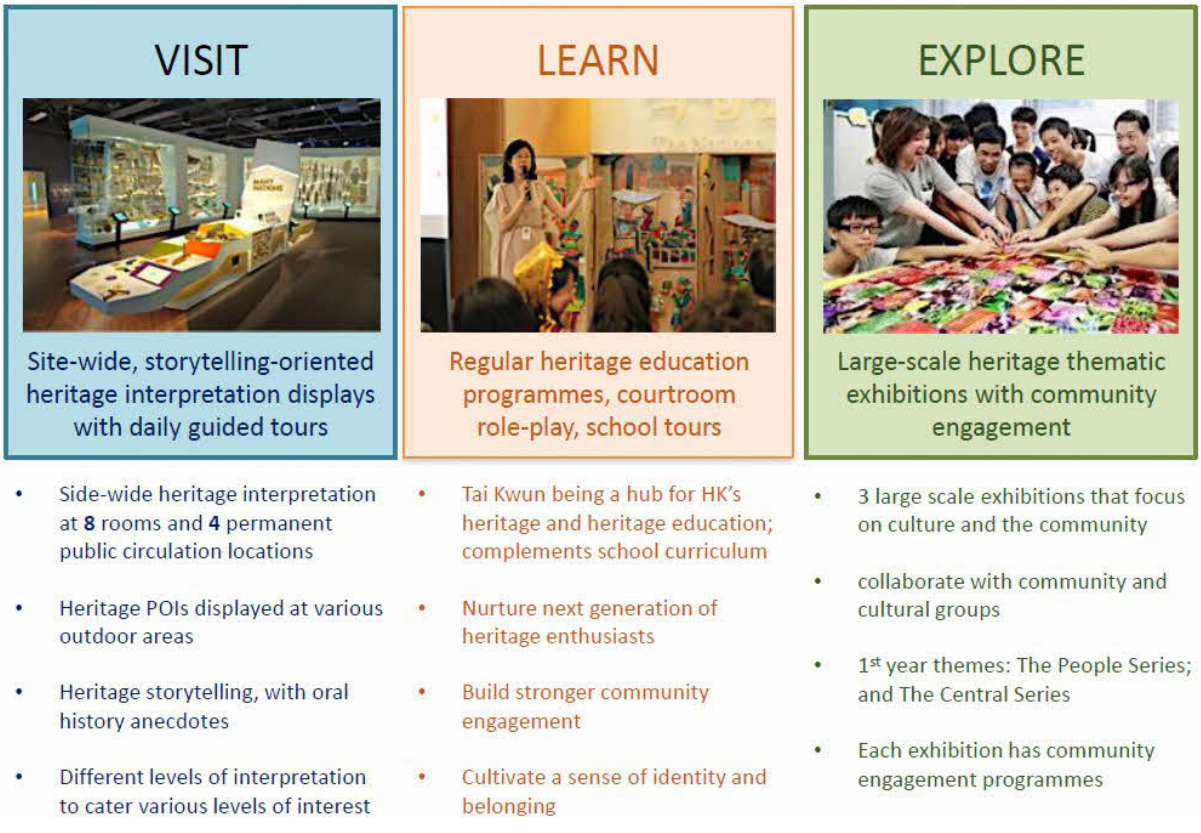


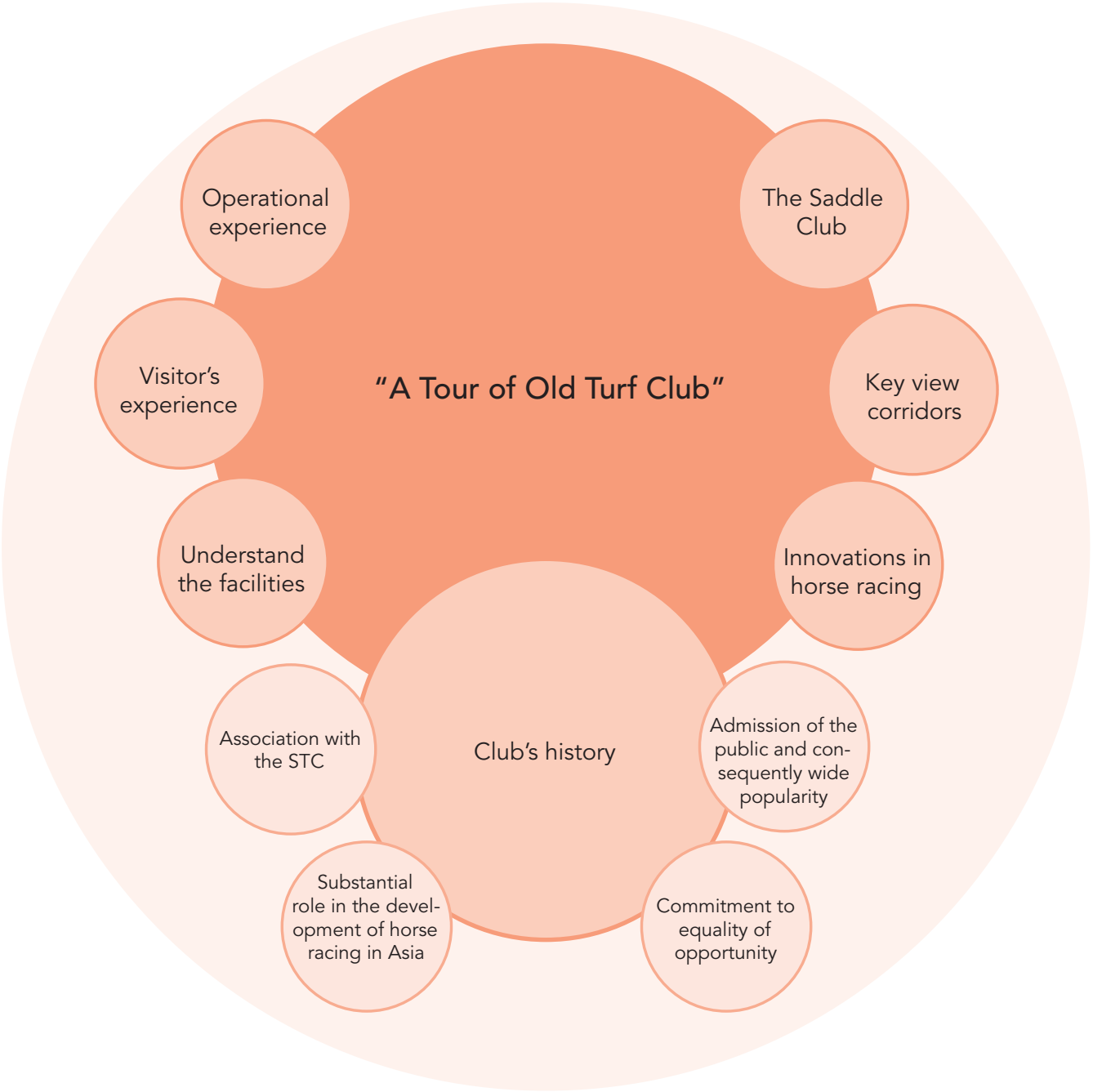
Figure 8.5: Heritage offerings in Tai Kwun. Source: Tai Kwun, Centre for Heritage and Arts

The plan should not focus solely on the history of the buildings or the site overall but include consideration of the spatial context between retained buildings, structures and open spaces. This is particularly important in understanding the range of facilities that were needed to run a successful racecourse, and how they were arranged as part of the sites operations, as well as a requirement to keep the public, and the business side of the site separate.

It should also consider the surrounding context of the site, as well as the early twentieth-century development of Singapore, notably through post-colonial period. Consultation with stakeholders about what matters to them would be assisted by the research and production of a Conservation Management Plan.

Some potential key themes and stories to consider integrating into the first stage of work on the site, the infrastructure development, are outlined in the diagrams on the next few pages. There are, however, other themes that will be more suitable to adopt as part of the implementation of interpretation within the future long-term development of the site. Further themes could also be explored as part of the long-term management of interpretation and providing educational content. This might include changing certain themes annually to encourage repeat visits.

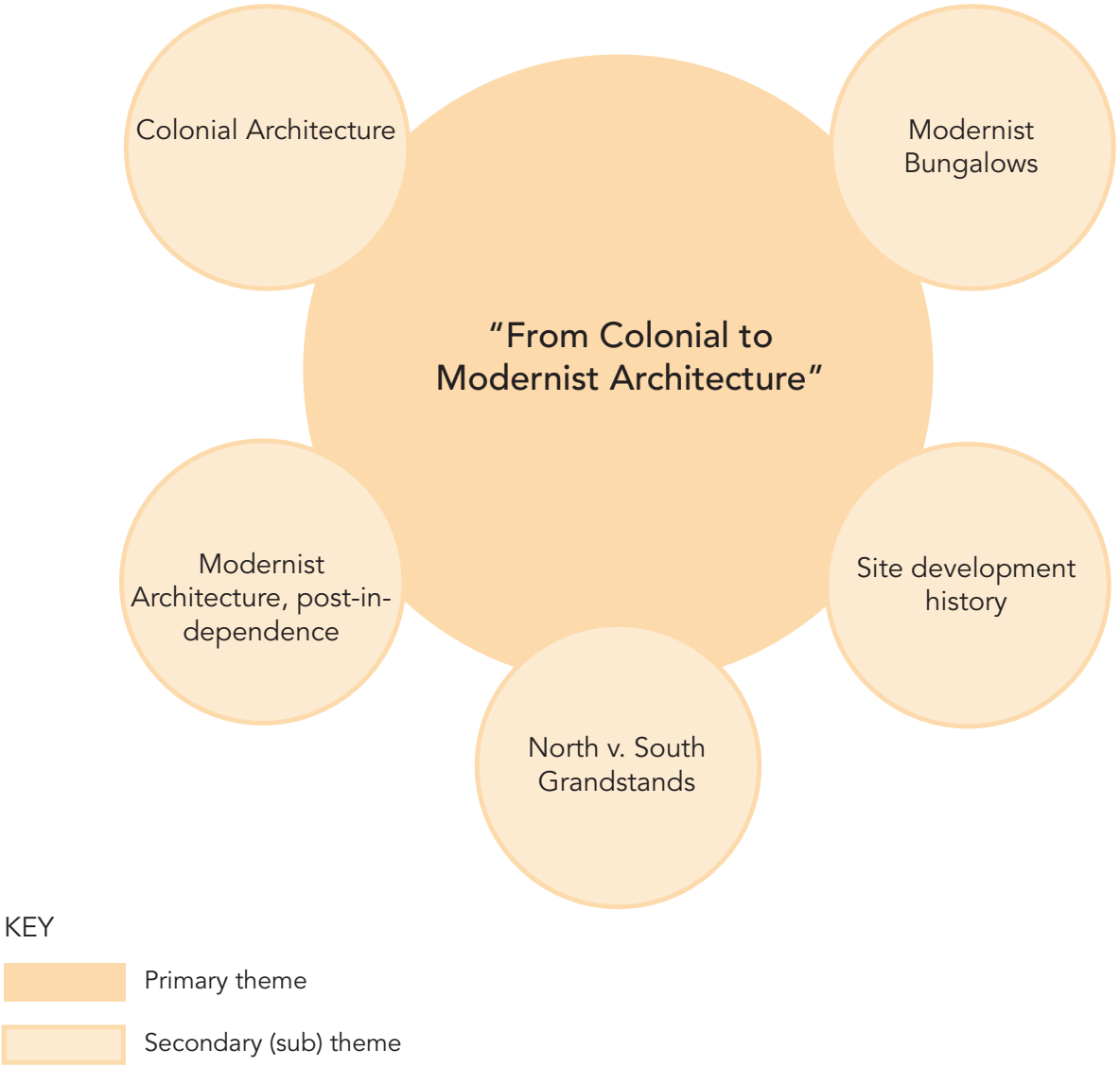
8.7.1 "A Tour of Old Turf Club"



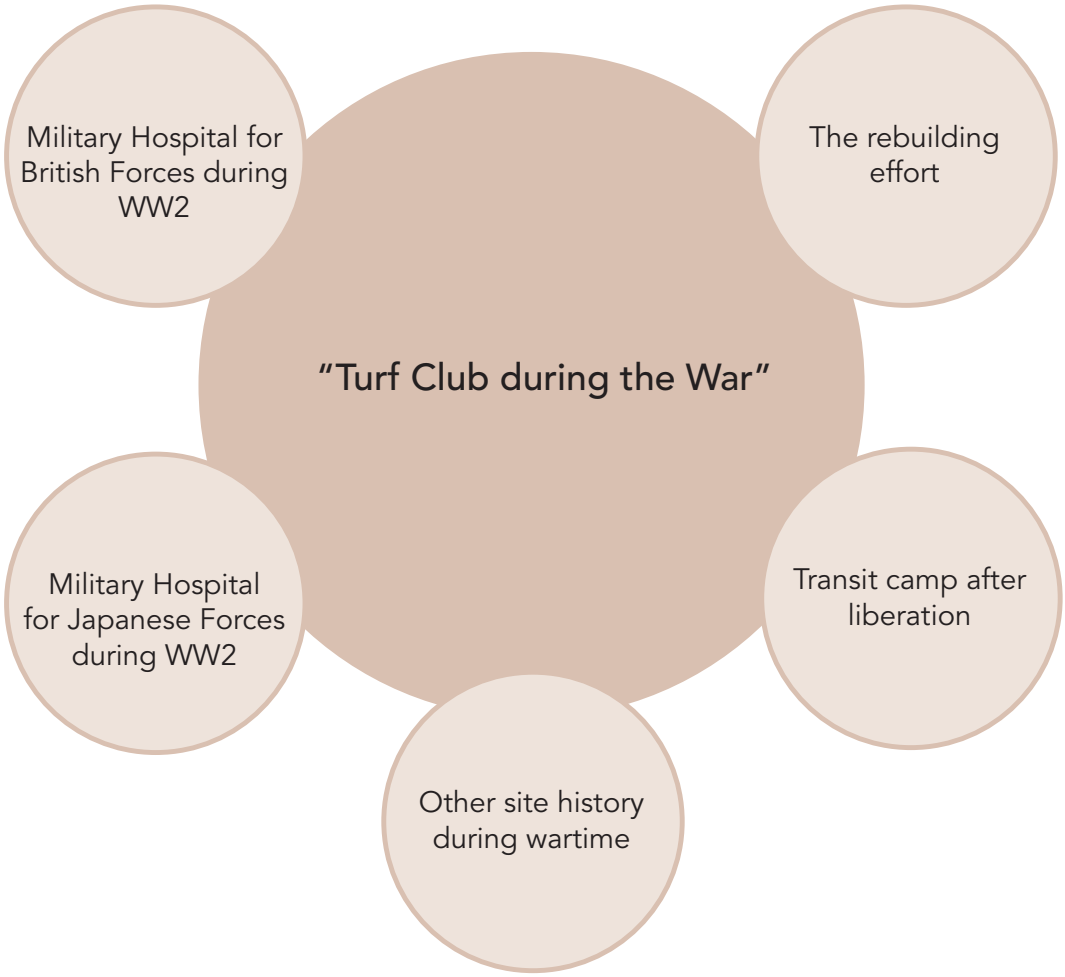
KEY

- Primary theme
- Secondary (sub) theme
- Tertiary theme

8.7.2"From Colonial to Modernist Architecture"



8.7.3 "Turf Club during the War"

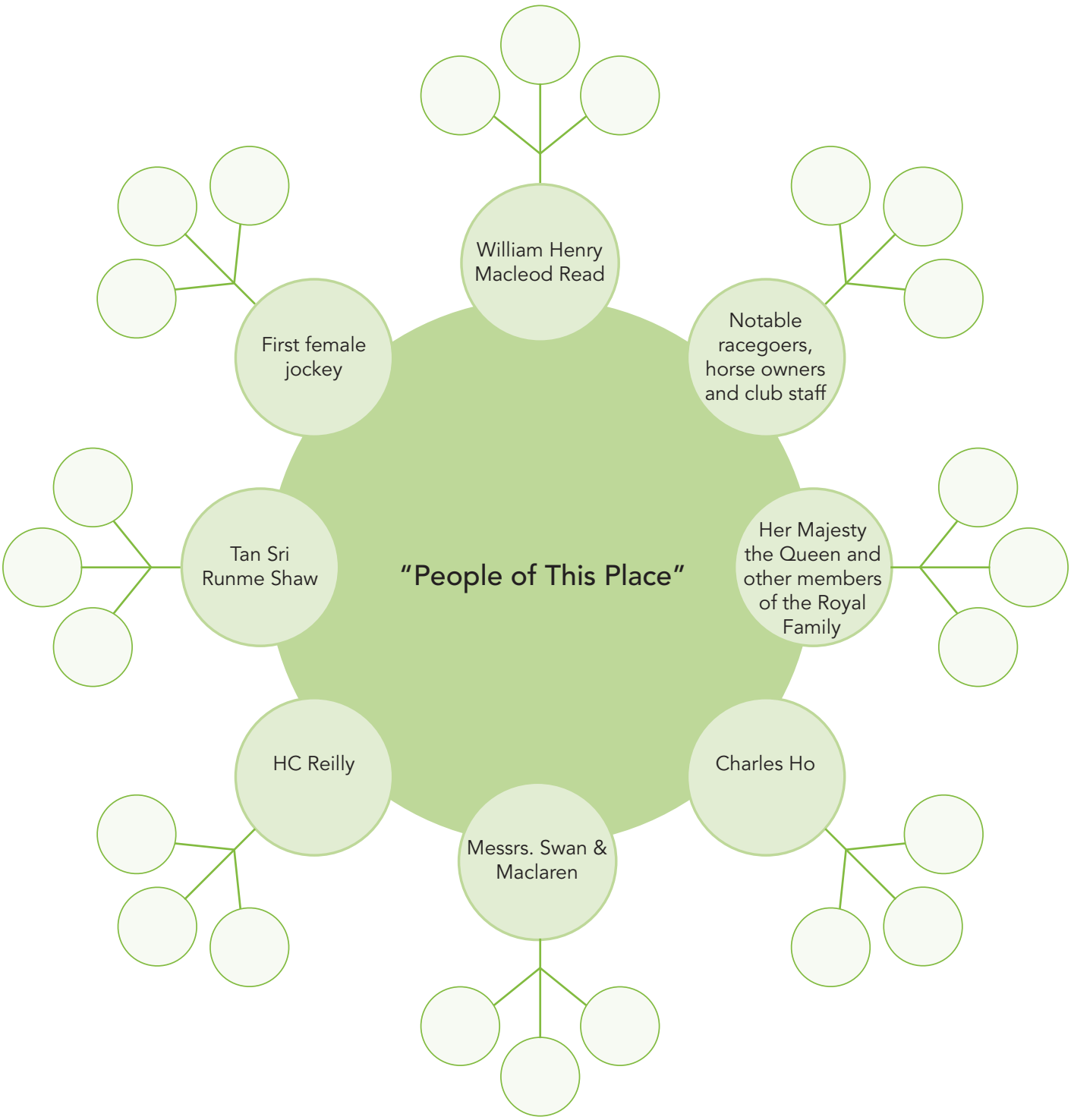


KEY

Primary theme

Secondary (sub) theme

8.7.4 "The People of This Place"



KEY

- Primary theme
- Secondary (sub) theme
- Tertiary theme

8.7.5 Preliminary recommendations

The following table sets out preliminary proposals for the themes and stories and the tools needed to support them, in what format, and who these may appeal to. The details of interpretation types / tools will be elaborated in Section 8.8 below.

This table should be a live document, which will require further review and development by an interpretation specialist.

Themes/ Stories	Interpretation Types/ Tools	Target Audience
A Tour of Old Turf Club	• Heritage signage • Digital media • Historic signs • Conservation works • Displays and exhibitions • Heritage trail and tour • Place making and public art • Souvenirs	All
From Colonial to Modernist Architecture	• Digital media • Conservation works • Displays and exhibitions • Heritage trail and tour • Souvenirs	Academics Students Specialist interest learners
Turf Club during the War	• Digital media • Place making and public art • Displays and exhibitions • Heritage trail and tour • Commemorative plaques	Academics Students Specialist interest learners
The People of This Place	• Digital media • Displays and exhibitions • Heritage trail and tour • Commemorative plaques	All

Table 8.1: Preliminary recommendations of interpretation types/tools and target audience for the proposed themes

8.8 Types of heritage interpretation and case studies

For a large and complicated heritage site as former Bukit Timah Racecourse, the interpretation should be presented in a range of different media with consideration of the heritage significance, target audience, and site condition.

Different media and interpretive measures are identified in this section; these include: signage; public art; object displays; digital media; and events, such as guided tours. These should be further developed by an interpretation specialist at the relevant project stages – read with Section 8.9.

8.8.1 Place making and public art

The current planned infrastructure works afford an opportunity to firmly embed place- making and public art right from the outset. This can be achieved by integrating interpretation through place-making and public art within the proposed CR14 station. Beyond this, and as plans for the site's redevelopment emerges, opportunities to enrich the site with place making initiatives and public art should be developed as part of the site's masterplan.

The potential afforded by the construction of the CR14 station to enhance heritage interpretation is crucial for large sites like the future Turf City, where original landscape elements, topography and spatial quality are the key characteristics and positive contributors to its heritage values and to an attractive neighbourhood.

'Place-making' is an approach to the planning, design and management of public spaces that engages with the community to create places that promote liveability, contribute to local identity and social value.

The setting of heritage places can be enhanced through place-making techniques and the introduction of temporary or permanent public art that interprets the significance of a place. Interpretation works can include:

- Temporary site hoardings or signage with heritage content during construction works.
- Using names drawn from the history of a place in signage (such as street names) to convey the history of the place.
- Installation of public art or murals that creatively represent the history or associations with a place. This may include reuse of elements arising from demolitions, for example, to create site art installations.
- Display of text and historic images on new building fabric and surface finishes.
- Landscaping works to improve the setting and presentation of a place which may include conserving or reinstating the footprint of particular structures.

Many of the above could readily be integrated into the new station development.

Public art can either be bespoke art creation by local/ international artists with themes based on the history of the site, re-creation by using recycled redundant historic fabric or even as part of the community engagement activities.

Permanent installations should consider the connections between the new installation and the site's history to ensure the interpretive information is well communicated with the audience, including users, visitors and tourists, without ambiguity.

Like any public transport node, the new CR14 station is a good opportunity to contribute to the spirit of place and heritage significance of Turf City at the point of arrival at the site. The reuse of artefacts and other materials associated with the site's former use can be important contributors to public art throughout the station concourse.

Any typical railway station concourse creates large expanses of wall surface, for the most part unadorned with window openings. This building typography therefore offers scope for the display of artefacts and/or artwork in multiple locations and at large scale. Such installations can often play a useful role in improving wayfinding, as well as providing important information to promote an understanding of the place and to guide the interpretation of the entire redevelopment.

Since a variety of installations can be considered, these can be emotive and seek to stimulate different emotions, contributing to a multi-faceted sensory experience. Examples of this include:

- Sculptures and installations at platform, concourse, and peripheral levels of the station
- Digital timeline of historical photos, videos etc
- Enrich surface finishes with references to the community
- Sound devices in the station – such as recreating the sound of race days
- Interactive devices such as QR codes in significant areas
- Artefact display zones on the concourse
- Railway ticket design

Station artworks can have a unifying effect on the community, serving as a focal point for both commuters and the people from elsewhere who visit. A well-considered station design that prioritises place-making and public art will not only improve aesthetics, it can promote intangible heritage, for example by evoking memories of past times and events.

To enhance public engagement and to ensure the new Turf City community spirit is embedded within the station design, there are opportunities to introduce public art from design competitions that could be structured around the various themes identified in Section 8.7.

Case Study: Multiple MTR stations in Hong Kong

Artwork in railway stations enriches the aesthetics. It is a unique way to represent the community's identity where the station is located. It can evoke memories of passengers that use the station. Artworks and/or installations, often in the form of interpretation, can be displayed in a range of spaces including the platforms, the station concourse, along exit routes, and within the entrances. This approach has been employed successful implemented by the MTR in Hong Kong. Station art sits harmoniously within the MTRs distinctive approach of assigning colour to each individual station.

Figure 8.6: 'Earth Song' is an artwork inspired by the Song Dynasty ceramics unearthed at the Sung Wong Toi station. (Source: artinmtr.com.hk)

Figure 8.7: 'Blooming Bud' is an installation in the concourse of Kennedy Town station. (Source: artinhk.com.hk)

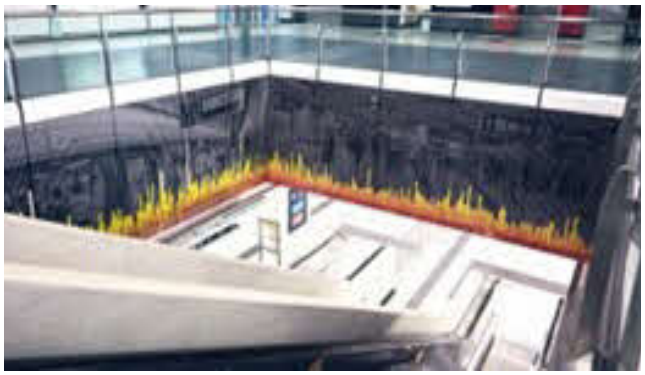


Figure 8.8: 'Soundscape Journey" is a collage visualising sounds in the railway. (Source: artinmtr.com.hk)

Figure 8.9: 'Inside, Outside' is a bas relief installation in the entrance and exit lift lobby of Sai Ying Pun station. (Source: artinmtr.com.hk)

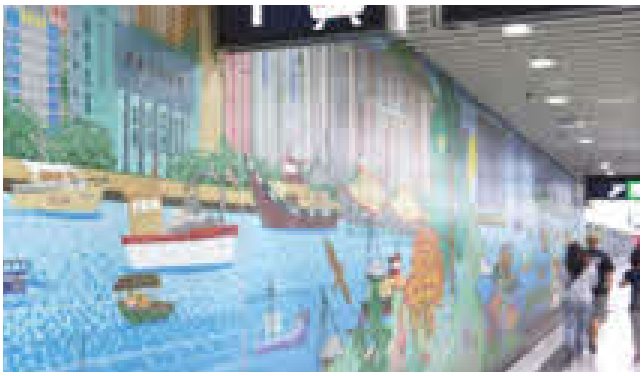


Figure 8.10: 'Soaring Horizon', a mosaic tiles artwork showing typical life in the district. 120 local students were involved in this work placed in the platform of South Horizons station. (Source: artinmtr.com.hk)

Figure 8.11: Indicative location of historic well in Sung Wong Toi station (Source: artinmtr.com.hk)

Figure 8.12: HKU Centennial Wall & University Historic Buildings showing the timeline of HKU in the station's entrance and exit lift lobby. (Source: artinmtr.com.hk)

Figure 8.13: Exhibition zone displaying artefacts unearthed at the Sung Wong Toi station. (Source: artinmtr.com.hk)

Figure 8.14: 'Streets and Alleys of the Western District' is a series of colour drawings in HKU station lift lobby and lift interiors showing the area's rich history. (Source: artinmtr.com.hk)

Figure 8.15: 'Sunshine on Our Quilt' is an artwork on the glass outdoor canopy and landscape area of the station. The work is inspired by the patchwork of residents' quilts hanging on street railing. (Source: artinmtr.com.hk)

Figure 8.16: Ticket design showing a map with landmarks of Kennedy Town. (Source: prlog.org)

8.8.2 Community and visitor engagement

Providing access for the community to heritage places supports individual personal experiences that may be shared about a place, which is a means of promoting an understanding of heritage value. These memories and stories can help enrich the interpretation of the site and engage directly with the community on issues of heritage conservation and promotion. Access to the heritage place must however, consider minimising disturbance and nuisance to those that reside or work on the site.

A key objective of an interpretation strategy is to encourage a higher level of community engagement, interest, and connectivity to the place, and to encourage visitors make repeat visits. Suggested ways this can be achieved are:

- Utilise the new station to integrate interpretative content from a key point of visitor arrival;
- Public activities, events, exhibitions, etc. related to the site's former use;
- Tours of the retained historic buildings, designed to increase awareness of the site's former use;
- Opportunities for academic development for students and heritage professionals and others in related fields of study in order to share knowledge; and
- Special events to commemorate anniversaries or major milestones in the history of the site, such as racing, diversity, Modernism etc, would provide the means of interpreting the history and importance of the place.

The content of these activities can be tailored to attract specific audiences and to cater to their interests. The use of temporary installations that contribute to broader events and festivals is also helpful.

8.8.3 New standard heritage signage

The future residential precinct will benefit from a standard signage design, which should aim to enhance the identity of the site. This standard heritage signage design should aim to provide:

- Basic information and incorporation of way-finding design, including street name signage, to be embedded in a site-wide signage strategy.
- Site map with identification of heritage assets to improve visitor and staff's awareness of former Bukit Timah Racecourse.
- Permanent and durable signage design with explanation of site/ building history and key values.
- Integration of QR code for additional information deemed necessary.

The signage strategy should be adaptable to a wide variety of circumstances taking account of different locations and content requirements, as well as considering how visitors first arrive at the site, noting that the arrival point will be different according to the mode of transport taken.

Case Study: Tai Kwun, Centre for Heritage and Arts, Hong Kong

The interpretation planning and design at Tai Kwun is an appropriate reference for this project due to the large-scale and richness of the heritage values it contains.

A variety of interpretive means were applied in the project including standard totem/signage design across all new and retained buildings, designated permanent interpretation space, digital media, retention of surviving historic signs and spaces "as found", completed conservation works and other creative approaches, such as: interior artwork and marking the footprint of the radial-plan prison blocks using studs embedded in the floor.

The physical measures are reinforced with self-guided and docent site tours and events and exhibitions. These activate the buildings and the spaces between them and create an "atmosphere" of engagement with the site.

Figure 8.17: Standard totem in Tai Kwun, Centre for Heritage and Arts

Case Study: Tai Kwun, Centre for Heritage and Arts, Hong Kong

Figure 8.18: Exhibition space in Tai Kwun. Source: Tai Kwun

Figure 8.19: Prison cell interpretation space with digital media

Figure 8.20: Designated interpretation space in Tai Kwun

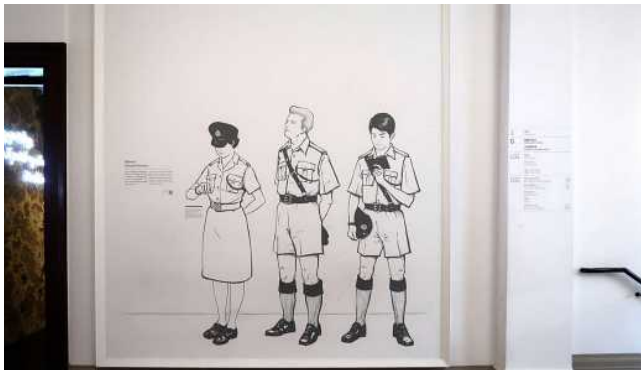


Figure 8.21: Artwork as interpretation.

Figure 8.22: Historic signs

Figure 8.23: Retained prison cell as interpretation space

Figure 8.24: Regular talks and events. Source: Tai Kwun, Centre for Heritage and Arts

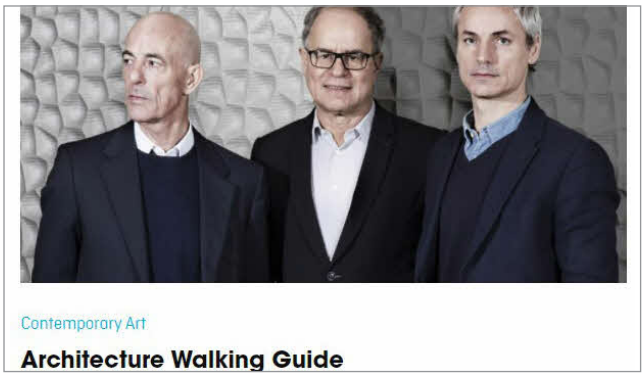


Figure 8.25: Special online event. Source: Tai Kwun, Centre for Heritage and Arts

8.8.4 Digital Media

With the development of modern technology, the interpretation of heritage sites can benefit from techniques such as VR, AR, QR code and mobile apps, etc. These digital media formats enable visitors to explore sites themselves. They can be used remotely is necessary and can even provide immersive and realistic visitor experiences, which has the potential to attract a broader audience. This can also incorporate the information gathered from the comprehensive heritage recording (drawings, 3D laser scanning and photogrammetry, etc.) carried out before the redevelopment. This medium can be used to explain and interpret the changes introduced in the redevelopment project in a three-dimensional format that may assist the user to visualise spatial qualities as well as explain contextual changes in the site. Key considerations may include:

- Development of a website and mobile app.
- Creation of a 3D model with a combination of VR technique to map out the historic development of the site at different times including the past, present and, potentially, the future.
- Representation of buildings/ structures no longer exist through the means of AR.
- A QR code system that is embedded in and integrated with the other interpretive measures.
- Audio/ video resources including oral history, historical footage and time-lapse photography during the construction of the redevelopment works.
- Social media can be used throughout the redevelopment to promote the work in progress. The platform can transition to interpretation and ongoing management of the interpretive events, programmes and to celebrate milestones.

Case Study: Ancient Olympia, Greece

With the use of virtual reality (VR), augmented reality (AR), and 3D technologies, the Ancient Olympia has been recreated digitally so that the rich histories surrounding these monuments become more comprehensive and accessible to future generations.

All image source: Microsoft

Figure 8.26: Combination of AI, VR and AR technologies

Figure 8.27: Desktop version of the project

Figure 8.28: VR exhibition (left) and mobile app (right)

9.0 Impact Assessment and Mitigation Measures

9.1 Introduction

This Impact Assessment relates to the planned works for the proposed CR14 station and associated works within former Bukit Timah Turf Club area. This section aims to evaluate the impact of the proposed infrastructure works and the positioning and construction of CR14 station and its two entrances located within the race track, as well as considering impacts from excavation, tunnelling and other infrastructural works. The study area of this HIA is limited to the buildings, structures and sites that would be directly affected by or in close proximity to CR14 and the associated tunnels for CRL2 alignment. Those extant buildings, structures and open spaces located outside the study area are excluded.

The primary objectives of this impact assessment are:

- To identify possible impacts on the Site [100] and the heritage values of the retained buildings/ structures/spaces contained within it (if any) due to the proposed infrastructure development
- To propose mitigation measures to alleviate adverse impacts on heritage values
- To provide guidance on the implementation of mitigation measures

The assessment has been prepared based on materials shared by LTA on 19 and 29 April 2022, and is informed by site observations to inform the description of the site, and the assessment of its heritage significance (as detailed across sections 4 and 5).

The documents that were provided by LTA include the Infrastructure plan layout (Appendix A).

100 For the purposes of this study, the Site is defined as the area marked in colour in Figure 2.4.

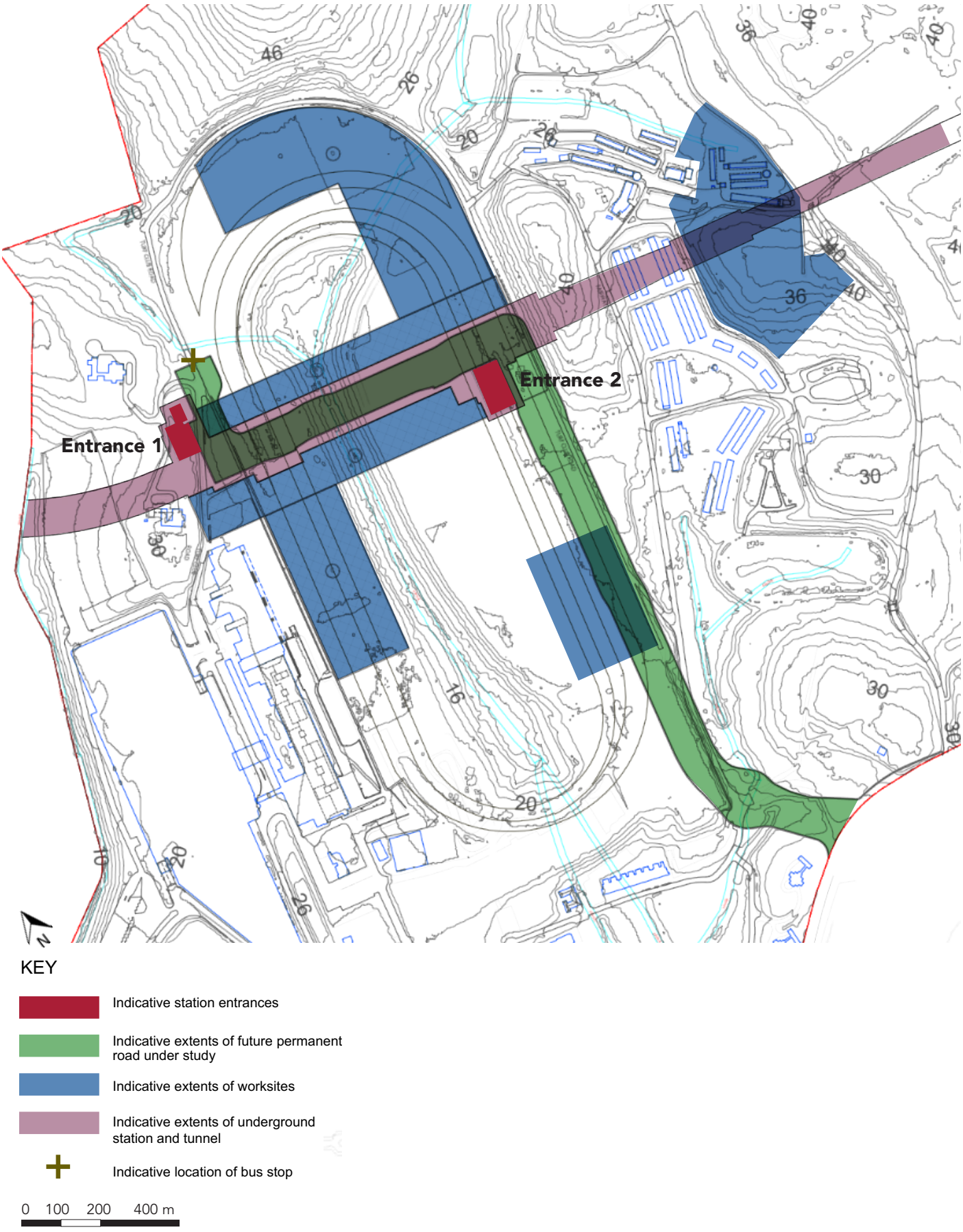


Figure 9.1: Proposed infrastructure development. (Source: LTA, modified by Purcell)

9.2 Assessment

9.2.1 Definitions of Terms

The five levels of significance that have been used to describe the character-defining elements individually in this Heritage Impact Assessment follow the definitions set out in the table 1.5. For the purposes of the impact assessment, only the significance level will be referenced, not the individual score.

The significance of the effect of change – i.e. the overall impact - on a heritage value a function of the importance of the value and the scale of change. This can be summarized for each heritage value and attribute described using the assessment criteria described in table 9.1 below. As change or impacts may be adverse (negative), beneficial (positive) or even neutral, in total there are seven evaluation points used in the impact assessment.

	Level of Impact	Definition
Positive	Highly Beneficial	The proposal considerably enhances the significance of the heritage asset(s), and/or the ability to appreciate its heritage values.
	Moderately Beneficial	The proposal enhances to a clearly discernible extent the significance of the heritage asset(s) and/or the ability to appreciate its heritage values.
	Minimally beneficial	The proposal enhances to a minor extent the significance of the heritage asset(s), and/or the ability to appreciate its heritage values.
Neutral	Neutral	The proposal does not change the significance of the heritage asset(s), and/or the ability to appreciate its heritage values.
Negative (if no mitigating measures present)	Minimally Adverse	The proposal damages to a minor extent the significance of the heritage asset(s), and/or the ability to appreciate its heritage values.
	Moderately Adverse	The proposal damages to a clearly discernible extent the significance of the heritage asset(s), and/ore the ability to appreciate its heritage values.
	Highly Adverse	The proposal substantially damages the significance of the heritage asset(s) and/or the ability to appreciate its heritage values.

Table 9.1: Assessment Criteria. (Source: Author)

9.3 Project Aim

The aim of the planned infrastructure development is to enhance the accessibility of the planned future development of the former Bukit Timah Racecourse by providing a new railway station to serve the site's future residents, tenants and visitors. For the purposes of this study, the site and the new station (ID CR14) will be known as Turf City.

The new railway station is considered vital to the long-term sustainability of the site and to connect its residents and visitors with Singapore generally.

Following the completion of engineering studies and consultations with relevant land-use agencies, the stations along the planned CRL 2 line have been determined after due consideration of future road parcellation and catchment. The CR14 station has two entrances. Entrance 1 is positioned north of the two grandstands (Building nos.1.1 and 1.2), near Secretary's Bungalow (Building no.7) and Duplex Flat (Building no.6) and Entrance 2 is southwest of the Saddle Club (Building no.16.1). The new station will enhance public accessibility of the new district and its retained heritage buildings.

9.4 Project Design Strategies

URA and LTA have stated that the position and alignment of the planned infrastructure works, comprising a tunnel and station entry/exit points, and a temporary construction access or future road under study have considered and been informed by the following:

1. Input and advice from engineering studies and consultations with relevant land-use agencies;
2. Findings from an Environmental Impact Study (EIS);
3. Consideration of future redevelopment plans, which are currently under study;
4. Constraint imposed on the tunnel alignment by the Central Catchment Nature Reserve (CCNR), located east of the station; and
5. Avoiding the Central Pipeline Reserve and an area of high biodiversity value, located west of the station;
6. Construction methods to minimize the extent of demolition of existing heritage assets.

In respect of the station entrance design, assessment is based on the conceptual design as provided by LTA. The final design will be carried out as by the Design and Build contractor for the station. Agencies will assess the design based on the principles set forth in this report.

9.5 Overview of Proposed Infrastructure development at Turf City

The CRL is Singapore's eighth and longest fully underground MRT line at more than 50 kilometres long. It will serve existing and future developments in the eastern, north-eastern and western corridors, linking major hubs such as Jurong Lake District, Punggol Digital District and Changi region. The line improves the accessibility between areas of employment and residential hubs, thus reducing journey times generally.

The section of the CRL line that will impact the former Bukit Timah Racecourse is expected to be constructed within Phase 2[101], whereby a new station will be built within the former Bukit Timah Turf Club Area. The CR14 station (Fig. 9.1) will have two new station entry/exit points constructed in close proximity to the former race track. LTA has stated that the stations along CRL2 have been determined following completion of robust engineering studies and consultations with relevant land-use agencies. The locations of the station entrances are based on providing access to the existing and future developments within the former Bukit Timah Racecourse area, taking into consideration the future road parcellation, catchment, heritage, and environmental concerns.

The purpose of the new station is to serve the planned redevelopment of the site into a new residential district.

To facilitate the infrastructure works, several buildings, structures and open spaces will be affected. In order to minimise impact to the surrounding structures, mined tunnels and underground bored tunnel were proposed where possible. However, supported excavation and construction access road were also required for the construction of station and associated future road under study. A few existing buildings and structures would need to be demolished, namely, part of the Stables at Fairway Drive (Building no.16.2), the Hay Barn (Building no.19) and modern sporting facilities that are currently located within the Main Track.

It may be advantageous to commission a conservation management plan to continue the work of managing change set out in this report. This would provide a policy framework that would inform decision-making across all aspects of the redevelopment from the strategic level to matters of detail.

101 *The 29km long CRL1 (Phase 1) alignment comprising 12 stations have been announced in 2019. The CRL2 (Phase 2) will continue from Bright Hill Station and run through areas such as Turf City, Clementi, West Coast and Jurong Lake District.* Source: URA

As part of the construction works, the temporary site access road may be converted to the future permanent access road in future. The purpose behind this is understood to be to minimise impacts arising from the future redevelopment work. The CR14 station will be underneath part of this road.

The proposed construction access road will be constructed and start from a new road junction linked to the existing road, Eng Neo Avenue. The construction access road will extend northward along existing roads: Fairways Drive, then Turf Club Road. Should the road be converted to a permanent road, it would be wider than these existing roads taking into consideration of the future redevelopment needs and the results of the environmental study, requiring part of the racecourse footprint between the inner and outer track to be altered. Part of the potential permanent access road will cut across the Main Track at right-angles to its longitudinal axis north of the North Grandstand; it then turns 90 degrees and extends a short distance northward and terminates at a bus stop located outside Entrance 1.

Two station entrances are located adjacent to the race track, one each on the east and west sides. The positioning of Entrance 1 on the west takes account of the two heritage bungalows (Building nos.) nearby to avoid any physical impact.

The infrastructure development plan for CR14 and the associated tunnels for CRL2 alignment do not provide details as to which buildings will be eventually retained within the area of the study in the future development plans. These will be included in a separate impact assessment, which is currently ongoing. Where buildings are retained, they will inevitably require updating to meet current standards of structural integrity, environmental conditioning (including services upgrades), conservation of historic fabric etc to remain fit for purpose.

The position of the tunnelling and open-cut excavations as well as worksites and temporary construction road, which took into consideration environmental concerns, means that several of the former racing support facilities, such as part of the stable blocks (Building no.16.2), and the Hay Barn (Building no.19) will not be retained and will be demolished. Other buildings located near the construction site are not expected to be adversely affected by the proposed work. The plan for these buildings will be described in a separate impact assessment, which is currently ongoing. For the purpose of this report, it is expected these buildings will be retained insitu, protected and monitored as appropriate during the infrastructure works. Further details are outlined within section 9.10.

For ease, we have categorized the infrastructure development impacts on the site's heritage values under the following headings (Refer to Fig. 9.3):

1. retention;
2. demolition; and
3. partial demolition/retention.

A combined summary is provided in Table 9.2.

Key views nos.2 and 4 within the site and/or from buildings identified in Chapter 3.0, will be impacted based on the current massing and location of station entrance 1. In particular, the views from the retained Secretary's Bungalow (7) will be impacted, as the new entrance is located extremely close to this residential property, and will likely require the plot and the vegetation surrounding it to be substantially altered. The access route to the property will also need to be re-aligned. For the construction of both new station entrances, it is recommended that the key views identified in the study are integrated into the plans to ensure that the visual connections between extant buildings and the landscape is preserved.

Heritage assets that lie outside the study area considered in this report are not included. Assessment of any impacts on these buildings will be the subject of a separate HIA, which will follow the same impact assessment methodology as described in this report.

Since this HIA is based on a conceptual plan layout, it is recommended that it remains a live document and it should be updated as detailed proposals for tunnelling, the station entrances, and the above-ground road works emerge. If other design schemes for the station entrances are presented, it is recommended that these also follow the same impact assessment methodology as outlined in this report. Similarly, proposals for the areas that lie outside the study area should be considered in the same way.

With regards to the retained heritage properties that lie outside the study area, at the time of preparing this HIA, detailed proposals for the future uses or proposed interventions are still subject to study. We recommend that a feasibility study is commissioned for these buildings to examine the degree of compatibility with the proposed uses. This would include the preparation of an accommodation schedule.

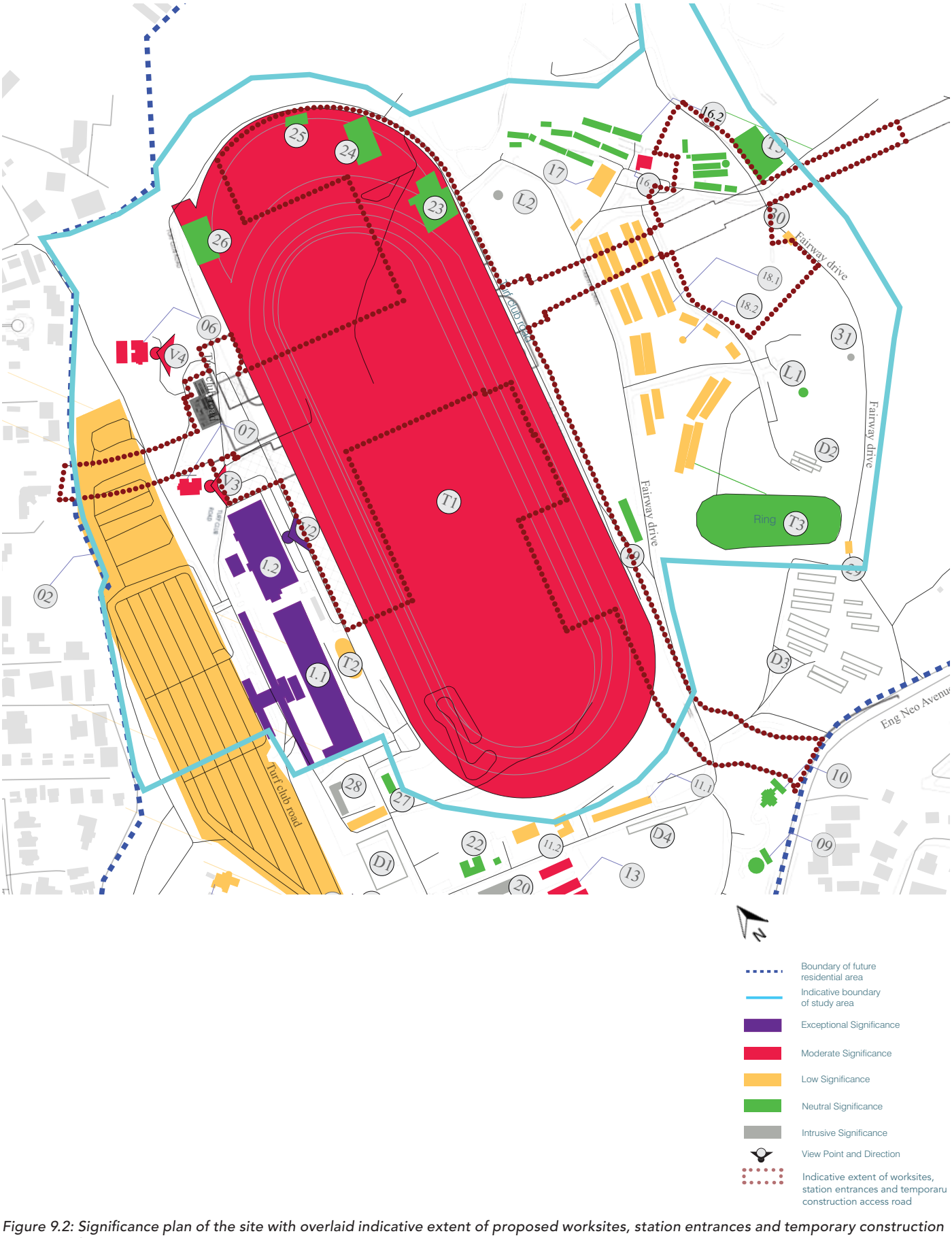


Figure 9.2: Significance plan of the site with overlaid indicative extent of proposed worksites, station entrances and temporary construction access road.

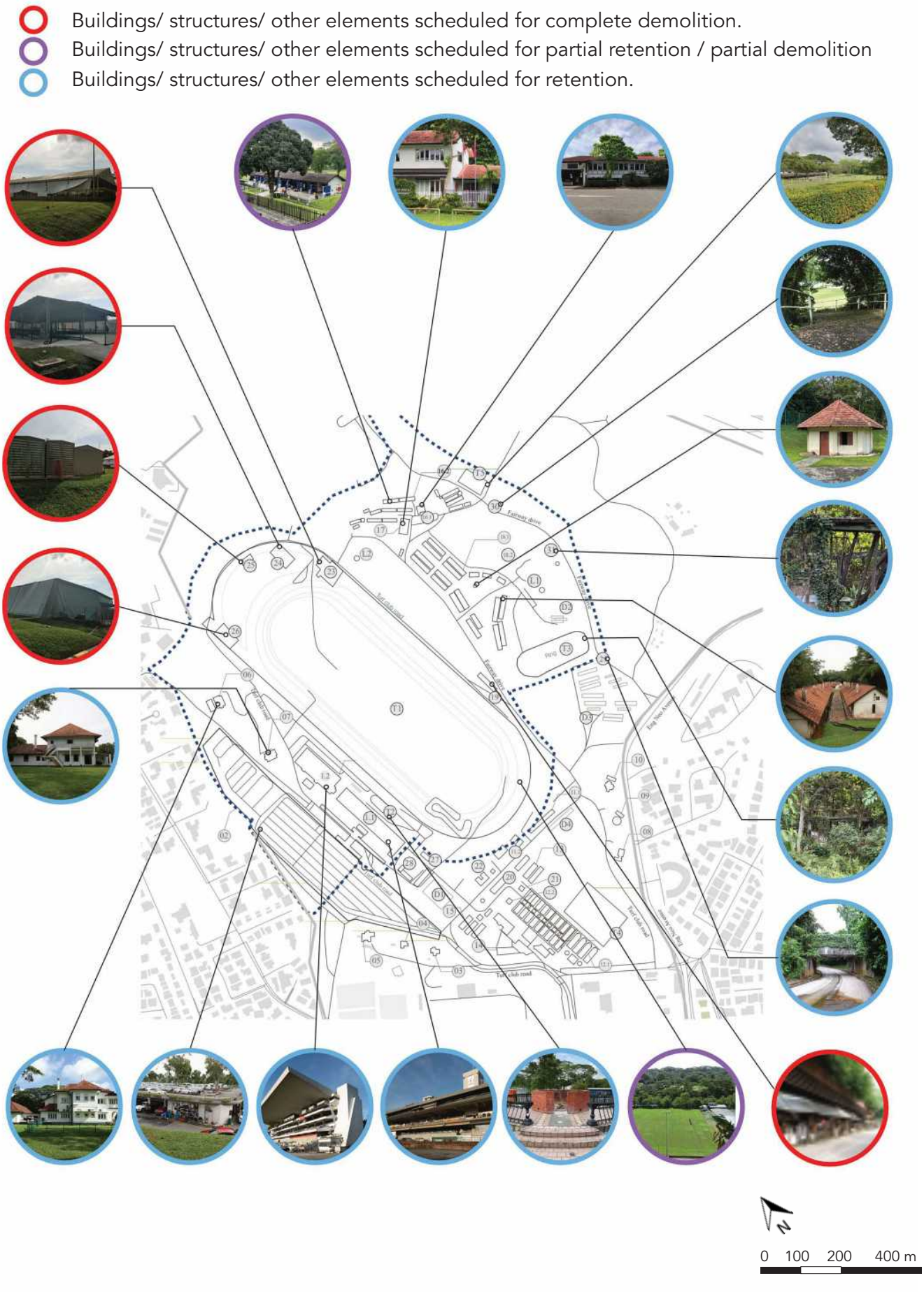


Figure 9.3: Buildings/ structures/ other elements scheduled for retention, partial retention/ demolition, or complete demolition.

Buildings or Structures within the Study Area

Building/ Structure/ Other ID No.	**Building/Structure/Other Name**	**Proposed scheme** (This only relates to the proposed scheme vis-à-vis the impact of the infrastructure works for CR14 and associated tunnels for the CRL2 alignment)
1.1	South Grandstand	To be retained
1.2	North Grandstand	To be retained
2	Carpark	To be retained
6	Duplex Flat at 192 Turf Club Road (Formerly Secretary's Bungalow)	To be retained
7	Secretary's Bungalow at 198 Turf Club Road (Formerly Deputy Secretary's Bungalow)	To be retained
16.1	Club House at 51 Fairways Drive	To be retained
16.2	Stables at 51 Fairways Drive	To be partially demolished
17	Fairways Bungalow at 55 Fairways Drive including mature trees within carpark areas	To be retained
18.1	Labourers' Quarters at 53 Fairways Drive including central courtyard space	To be retained
18.2	Community Centre at 53 Fairways Drive	To be retained
19	Hay Barn	To be demolished
23	Basketball court shelter, Turf Club Road	To be demolished
24	Sheltered sporting arena, Turf Club Road	To be demolished
25	Container blocks, Turf Club Road	To be demolished
26	Indoor sporting arena, Turf Club Road	To be demolished
29	Horse Bridge No.1	To be retained
30	Horse Bridge No.2	To be retained
31	Abandoned Hot Walker	To be retained
T1	Main Track	To be partially demolished
T2	Parade Ring	To be retained
T3	Exercise Ring	To be retained
T5	Bukit Timah Saddle Club Track	To be retained
L1	Horse Pastures	To be retained
L2	Forested Knoll	To be retained

Table 9.2: Summary of retention or demolition of buildings/ structure/ other within the site area.

9.6 Key Guiding Issues to be Addressed

Context	• Landscape and topography • Social • Historical
Significance	Retained/ Enhanced • Public accessibility • Proximity • Visibility • Compatibility (form, colour, height, scale, etc.) • Adaptive reuse (suitable usage, preserving CDEs, etc.) • Interpretation (learning from heritage, narratives) • Statutory compliance
	Lost/ Reduced • Recording and documentation • Salvage and reuse elsewhere • Interpretation (memories, narratives) • Statutory compliance
Sense of Place	Safeguarding and promotion • Tangible (sites, buildings, landscapes, routes, objects) • Intangible (memories, narrative, written documents, festivals, commemorations, etc.)

Table 9.3: Key Guiding Issues.

9.7 Methodology

The following standards and guidelines have been referenced in the preparation of this impact assessment.

9.7.1 International standards and guidelines

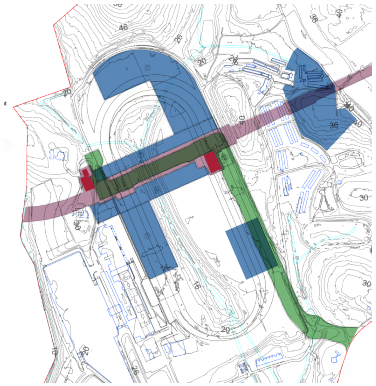
1. *Conservation area appraisal, designation and management* by Historic England, 2019.
2. *'Heritage impact statements'* as introduced by James Semple Kerr in his book, *The conservation plan: A guide to the preparation of conservation plans for places of European cultural significance,* Australia ICOMOS, 2013.
3. *Character and identity: Townscape and heritage appraisals in housing market renewal areas* by English Heritage and Commission for Architecture and the Built Environment, 2008.
4. *Statements of heritage impact by the NSW Heritage Office and Department of Urban Affairs and Planning, 2006.*

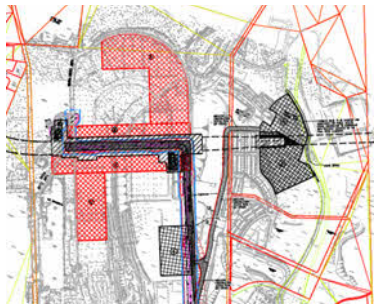
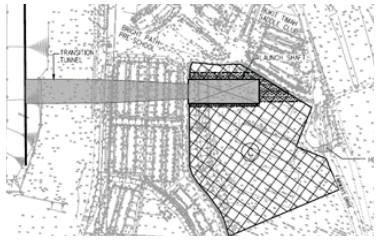
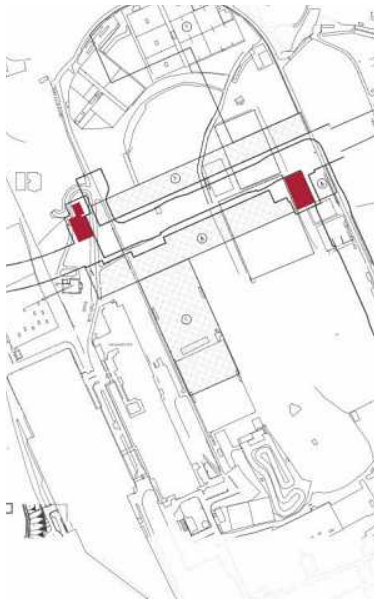
9.7.2 Singapore standards and guidelines

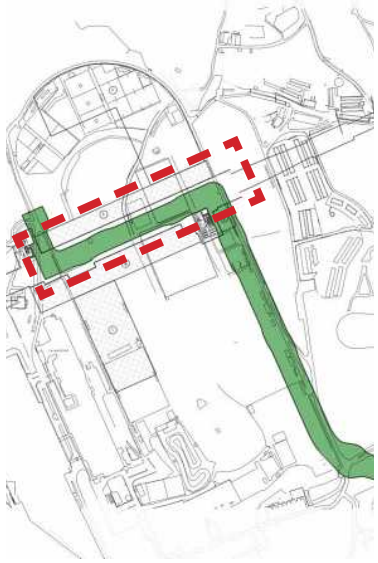
1. Conservation guidelines by Urban Redevelopment Authority, Singapore, 2017.
2. Guidelines on greenery provision and tree conservation for developments, National Parks, Singapore, 2018.
3. Development control parameters for residential development, Urban Redevelopment Authority, 2019.

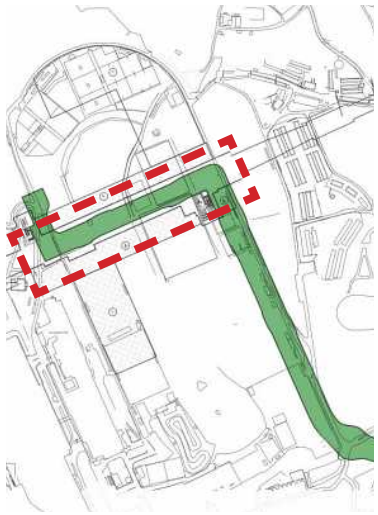
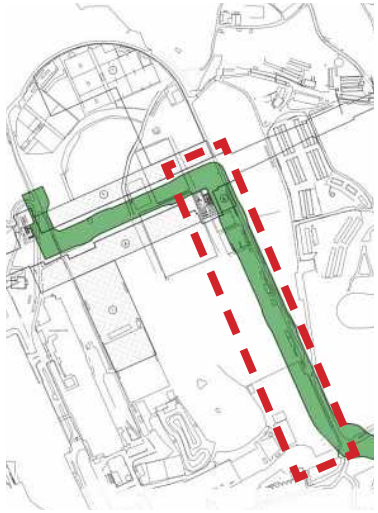
9.8 Impact Assessment

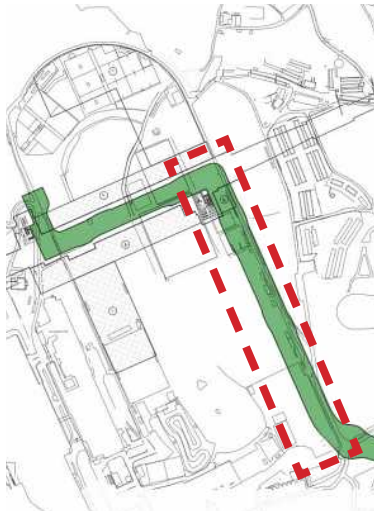
Table 9.4: Table of potential impacts, justifications and mitigation measures.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
1.0 Overall Site Development							
1.1	Construction of CR14 station, potential permanent new road, and associated facilities within the Site		Refer to table below	Various	Moderately beneficial	The creation of a new MRT station will enhance the site's accessibility and is a precursor to the site's future redevelopment and adaptive reuse. The selection of the station locations for the new CRL2 line is based on engineering studies and consultations with relevant land-use agencies, as well as future redevelopment of the site. Construction methods have been selected to minimise impacts on heritage buildings.	Refer to Section 9.10
1.2	Position the station to avoid impact on Central Pipeline Reserve (east) and high biodiversity area (west)		N/A	N/A	Moderately beneficial	Refer to separate environmental impact study.	Refer to separate environmental impact study.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
1.3	Excavations and construction work areas within the Main Track T1		T1.1 T1.2. T1.3 & T1.5 T1.4	Exceptional Moderate Intrusive	Moderately Adverse	Excavation and provision of contractor's work areas are essential to facilitate the construction of CRL2, CR14 station and affiliated facilities.	Record the Main Track using 3D scanning/ photogrammetry prior to the excavation. The future landscape should be carefully designed or existing features reinstated so that the Main Track can still be perceived and identified in its original position and configuration at completion.
1.4	Formation of Transition Tunnel adjacent Fairways Quarters		Refer to table below	Various	Moderately beneficial	The Transition Tunnel is essential to facilitate construction of the CRL. The excavation will be carried out by below-ground mining.	Establish and implement structural monitoring plan during the construction phase, including defined limits on building movement.
1.5	Construction of new above ground station entrances and associated facilities		1.2.1-1.2.4, T1.1 1.2.5-1.2.9, T1.2. T1.3 & T1.5, 6.1-6.2, 6.5-6.6, 6.12, 6.17-6.18, 7.1-7.2, 7.13-7.16 1.2.11 1.2.12-1.2.13, 7.7 6.3-6.4, 6.7-6.9, 6.11, 6.13-6.16, 7.3-7.4, 7.8-7.12, 7.17-7.18 1.2.10, T1.4, 6.10, 7.5-7.6	Exceptional Moderate Moderate to Low Neutral Low Intrusive	Minimally adverse	The new station entrances are essential to provide access from underground MRT platform to the ground level.	The new construction in close proximity might cause adverse impact to the heritage buildings (North grandstand, Secretary's Bungalow and Duplex Flat) both physically and visually. Establish and implement structural monitoring plan during the construction phase, including defined limits on building movement.. The design of the new station entrances shall be sympathetic to the historical buildings nearby and the Main Track and subject to a visual impact assessment.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
1.6	Potential construction of permanent road (subject to study) in E-W alignment across racetrack To be read in conjunction with 1.8		T1.1 T1.2. T1.3 & T1.5 T1.4	Exceptional Moderate Intrusive	Moderately adverse	The potential new road would run on top of the new MRT station, which would already have been excavated. The road alignment links the two station entrances and is therefore integral to the infrastructure layout.	Alternative road configurations that better respect the geometry of the racetrack should be considered. Retain the openness of the affected space as much as feasible, any type of visual barrier alongside the new road should be avoided. Use flush curbs and soften any change of surface either side of road with low-growing vegetation and/or post and rail fences. Interpretation measures should be included in the future site-wide heritage interpretation strategy. A visual impact assessment should be conducted as part of the development plan and presented along with all other studies so that stakeholders may assess the merits of the scheme and, more importantly, enable the design team to ensure that the scheme represents the optimal solution for the site in terms of spatial configuration. Record the Main Track using 3D scanning/ photogrammetry prior to any construction.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
1.7	Construction of temporary access road in E-W alignment across racetrack To be read in conjunction with 1.8		T1.1 T1.2. T1.3 & T1.5 T1.4	Exceptional Moderate Intrusive	Moderately adverse	The access road is temporary and, in the absence of any archaeological deposits, the impact will be temporary. The impact will cease upon removal of the road.	The landscape affected by the temporary access road will be reinstated after construction works are completed. Record the Main Track using 3D scanning/ photogrammetry prior to any construction.
1.8	Potential construction of permanent road (subject to study) between the inner and outer racetrack from north to south, and connecting to Eng Neo Avenue To be read in conjunction with 1.6		T1.1 T1.2. T1.3 & T1.5 T1.4	Exceptional Moderate Intrusive	Moderately adverse	The alignment of this potential future road took into consideration the results from the separate environmental impact study. (refer to item 1.2 above)	The potential future road will align with the existing Turf Club Road. The future landscape adjacent the road should be carefully designed so that Main Track can still be perceived and identified in its original position and configuration after the completion. Record the Main Track using 3D scanning/ photogrammetry prior to any construction.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
1.9	Construction of a temporary road between the inner and outer racetrack from north to south, and connecting Eng Neo Avenue To be read in conjunction with 1.7		T1.1 T1.2. T1.3 & T1.5 T1.4	Exceptional Moderate Intrusive	Moderately adverse	The alignment of the road arises from the outcome of a separate environmental study (refer to item 2 above). The access road is temporary and therefore the impact will be temporary. The impact will cease upon removal of the road.	The temporary road will align with the existing Turf Club Road. The road and/or landscape affected by the temporary road will be reinstated after construction completes. Record the Main Track using 3D scanning/ photogrammetry prior to any construction.
2.0 Site and Setting							
2.1	Retention of Round Podium in Parade Ring (Track No. T2)		T2.1 T2.2 & T2.4 T2.3	Moderate Low Intrusive	Neutral	There is no impact arising from the proposal to retain the Round Podium in the Parade Ring (Track No.T2) therefore no justification is applicable	There is no impact arising from the proposal to retain the Round Podium in the Parade Ring (Track No.T2) therefore no mitigation is applicable.
2.2	Retention of Exercise Ring (Track No. T3)		T3.1	Neutral	Neutral	There is no impact arising from the proposal to retain the Exercise Ring (Track No.T3) therefore no justification is applicable.	There is no impact arising from the proposal to retain the Exercise Ring (Track No.T3) therefore no mitigation is applicable

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
2.3	Retention of Exercise Ring (Track No. T4)		T4.1	Neutral	Neutral	There is no impact arising from the proposal to retain the Exercise Ring (Track No.T4) therefore no justification is applicable.	There is no impact arising from the proposal to retain the Exercise Ring (Track No.T4) therefore no mitigation is applicable
2.4	Retention of Bukit Timah Saddle Club Track (Track No. T5)		T5.1	Neutral	Neutral	There is no impact arising from the proposal to retain the Bukit Timah Saddle Club Track (Track No. T5) therefore no justification is applicable.	There is no impact arising from the proposal to retain the Bukit Timah Saddle Club Track (Track No. T5) therefore no mitigation is applicable.
2.5	Retention of existing Key View no.1 from the site entrance looking toward the two grandstands.		V.1	Exceptional	Neutral	There is no impact arising from the proposal to retain the Key View no.1 therefore no justification is applicable.	There is no impact arising from the proposal to retain the Key View no.1 therefore no mitigation is applicable.
2.6	Intervention in Key View no.2 from public areas within the North Grandstand toward the racetrack and open landscape beyond due to new station entrances, new road and associated facilities.		V.2	Exceptional	Minimally adverse	Proposed above-ground station entrances, new road and associated facilities are key components of the infrastructural proposal.	The design of the new station entrances structure shall be limited in height and sympathetic to the historical buildings nearby. A visual impact assessment should be conducted to ensure that this key view is retained as much as feasible.

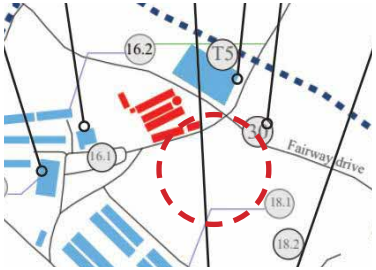
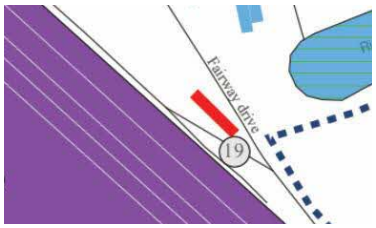
Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
2.7	Retention of Key View No. 3 from Secretary's Bungalow (Building no.7) looking toward the North Grandstand (Building 1.2) and racetrack (T1)		V.3	Moderate	Neutral	There is no impact arising from the proposal to retain the Key View no.3 therefore no justification is applicable.	There is no impact arising from the proposal to retain the Key View no.3 therefore no mitigation is applicable
2.8	Modification of Key View No. 4 from Duplex Flat (Building no.6) looking toward northern end of racetrack (T1) and open landscape beyond, toward the proposed new station		V.4	Moderate	Minimally adverse	Proposed station entrances, new road and associated facilities are key components of the infrastructure proposal.	The design of the new station entrances shall be limited in height and sympathetic to the historical buildings nearby. A visual impact assessment should be conducted to ensure that this key view is retained as much as feasible.
3.0 Retention/ Physical Change to the Retained Buildings/ Structure							
Building No.1.1							
3.1	Retention of South Grandstand		1.1.1-1.1.2 1.1.3-1.1.4,1.6-1.1.7 1.1.8 1.1.5	Exceptional Moderate Low Intrusive	Neutral	The grandstand is of exceptional significance.	There is no impact arising from the proposal to retain the South Grandstand, therefore no mitigation is applicable.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
Building No.1.2							
3.2	Retention of North Grandstand		1.2.1-1.2.4 1.2.5-1.2.9 1.2.11 1.2.12-1.2.13 1.2.10	Exceptional Moderate Moderate to Low Neutral Intrusive	Neutral	The grandstand is of exceptional significance.	There is no impact arising from the proposal to retain the North Grandstand, therefore no mitigation is applicable.
Building No.2							
3.3	Retention of Carpark inclusive of the 1933 bridge structure		2.3a 2.2, 2.4 2.1 2.3b	Moderate Neutral Low Intrusive	Neutral	The carpark and bridge are of low significance. There is no impact arising from the proposal to the retention of carpark and bridge therefore no justification is applicable.	There is no impact arising from the proposal to retain the carpark therefore no mitigation is applicable.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
Building No.6							
3.4	Retention of Duplex Flat at 192 Turf Club Road		6.1-6.2, 6.5-6.6, 6.12, 6.17-6.18 6.3-6.4, 6.7-6.9, 6.11, 6.13-6.16 6.10	Moderate Low Intrusive	Neutral	The bungalow is of moderate significance.	There is no impact arising from the proposal to retain the Duplex Flat, therefore no mitigation is applicable.
Building No.7							
3.5	Retention of Secretary's Bungalow at 198 Turf Club Road		7.1-7.2, 7.13-7.16 7.7 7.3-7.4, 7.8-7.12, 7.17-7.18 7.5-7.6	Moderate Neutral Low Intrusive	Neutral	The bungalow is of moderate significance.	There is no impact arising from the proposal to retain the Secretary's Bungalow, therefore no mitigation is applicable.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
Building No.16.1							
3.6	Retention of Club House at 51 Fairways Drive		16.1.1, 16.1.4 16.1.7, 16.1.9 16.1.2-16.1.3, 16.1.6, 16.1.8 16.1.5	Moderate Neutral Low Intrusive	Neutral	The Club House is of moderate significance.	There is no impact arising from the proposal to retain the Club House, therefore no mitigation is applicable.
Building No.17							
3.7	Retention of Fairways Bungalow at 55 Fairways Drive including mature trees within carpark areas		17.1, 17.9 17.6 17.2-17.3, 17.5, 17.7 17.4, 17.8	Moderate Neutral Low Intrusive	Neutral	The bungalow is of low significance.	There is no impact arising from the proposal to retain the Fairways Bungalow, therefore no mitigation is applicable.
Building No.18.1							
3.8	Retention of Labourers' Quarters at 53 Fairways Drive, including central courtyard space		18.1.1 to 18.1.6	Low	Neutral	The Labourer's Quarters are of low significance.	There is no impact arising from the proposal to retain the Labourers' Quarters, therefore no mitigation is applicable.
Building No.18.2							
3.9	Retention of Community Centre at 53 Fairways Drive		18.2.1 to 18.2.5	Low	Neutral	The Community Centre is of low significance.	There is no impact arising from the proposal to retain the Community Centre, therefore no mitigation is applicable.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
Building No.29 Horse Bridge No. 1							
3.10	Retention of Horse Bridge no. 1		29.1	Low	Neutral	The Horse Bridge No.1 is of low significance. There is no impact arising from the proposal to the retention of Horse Bridge no.1 therefore no justification is applicable.	There is no impact arising from the proposal to retain the Horse Bridge No.1 therefore no mitigation is applicable.
Building No.30 Horse Bridge No. 2							
3.11	Retention of Horse Bridge no. 2		30.1	Low	Neutral	The Horse Bridge No.2 is of low significance.	There is no impact arising from the proposal to retain the Horse Bridge No.2, therefore no mitigation is applicable.
Building No.31 Abandoned Hot Walker							
3.12	Retention of Abandoned Hot Walker		31.1	Intrusive	Neutral	The Hot Walker is of intrusive significance. Its retention is acceptable as it is surviving evidence of the site's former use.	There is no impact arising from the proposal to retain the abandoned hot walker therefore no mitigation is applicable.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
4.0 Complete or Partial Demolition of Heritage Buildings/ Structures							
Building No.16.2							
4.1	Partial Demolition of Stables at 51 Fairways Drive	 	16.2.1 16.2.2-16.2.4	Moderate Low	Minimally adverse	A number of the individual stable buildings required demolition to facilitate the construction of CRL2 line and Transition Tunnel.	Prepare photographic and cartographic survey of the affected buildings prior to the commencement of demolition works. Artefacts or objects with heritage values shall be considered for salvaged and included in the future interpretation plan.
Building No.19							
4.2	Demolition of Hay Barn	 	19.1, 19.3 19.2	Neutral Low	Minimally adverse	Demolition is required in full to facilitate the construction of a temporary access road to service the infrastructure works.	Prepare photographic and cartographic survey of the affected building prior to the commencement of demolition works. Artefacts or objects with heritage values shall be considered to be salvaged and included in the future interpretation plan.

Item	Description of Change	Image Reference	CDE Affected	Significance of CDE	Impact	Justification	Mitigation
Building No.23							
4.3	Demolition of Basketball court shelter at Turf Club Road		N/A	N/A	Neutral	Demolition is required to facilitate the construction of CRL2 and new station.	There is no impact arising from the proposal to demolish the basketball court shelter, therefore no mitigation is applicable.
Building No.24							
4.4	Demolition of Sheltered sporting arena at Turf Club Road		N/A	N/A	Neutral	Demolition is required to facilitate the construction of CRL2 line and new station.	There is no impact arising from the proposal to demolish the sheltered sporting arena therefore no mitigation is applicable.
Building No.25							
4.5	Demolition of Container blocks at Turf Club Road		N/A	N/A	Neutral	Demolition is required to facilitate the construction of CRL2 line and new station.	There is no impact arising from the proposal to demolish the container blocks therefore no mitigation is applicable.
Building No.26							
4.6	Demolition of Indoor sporting arena at Turf Club Road		N/A	N/A	None	Demolition is required to facilitate the construction of CRL2 line and new station.	There is no impact arising from the proposal to demolish the indoor sporting arena therefore no mitigation is applicable.

9.9 Mitigation Measures

9.9.1 POTENTIAL HERITAGE IMPACT AND MITIGATION MEASURES

KEY ASPECT	POTENTIAL HERITAGE IMPACT	POSSIBLE JUSTIFICATIONS	POSSIBLE MITIGATION MEASURES
Intactness	Loss of identity/ heritage character Loss of contextual relationship with wider site Partial alteration/ modification of historic fabric Affected heritage values: • HISTORICAL • COMMUNAL AND SOCIAL • CONTEXTUAL	To achieve required planning parameters To fulfill statutory requirements	**Conservation Management Plan** The archival information compiled in this heritage research study for Bukit Timah Racecourse is deemed as preliminary to evaluate the current planning study only. Given the site's complexity and heritage significance, especially in its architectural, contextual and historical values, it is recommended that a conservation management plan is prepared that would provide more in-depth archival research and site survey of the buildings and CDEs in order to establish a more comprehensive understanding of the history and development of the site including all buildings, structure and landscape within. This would provide a more robust basis for the management of change. It would also enable historical development plans to be prepared so that the dates of different elements can be established, which would facilitate further assessment of significance, identify issues and opportunities and enable conservation polices that would guide the future development as well as the management and maintenance of the site in the long term. Create a policy framework that seeks to identify and retain that which reveals the significance of the place whilst enabling efficient development of the site that offers enhanced amenity to those who will live and work there and provides an insight for others who visit. Retention of heritage value is built upon the retention of selected heritage assets and the interpretation of heritage values of the site generally. See Chapter 8.0. **Legislative Framework** Buildings identified for conservation will be granted protection under the existing legislative framework. Confirmation of those buildings to be identified for conservation is still under study.

KEY ASPECT	POTENTIAL HERITAGE IMPACT	POSSIBLE JUSTIFICATIONS	POSSIBLE MITIGATION MEASURES
Context	Loss of contextual relationship with wider site and characteristic configuration of the site Loss of relation between built forms and setting Loss of heritage setting/ landscape Loss of heritage values: • AESTHETIC AND ARCHITECTURAL • HISTORICAL • CONTEXTUAL		**Configuration and Spatial Quality** As the previous site for one of Asia's most significant racecourses, Bukit Timah Racecourse has a unique sense of place as well as spatial configuration and quality, which should be maintained even though the original function no longer exists. The relationship among the main track, two grandstands and Secretary's Bungalow should be retained. New circulation routes shall make use of the existing ones if feasible. Where introduction of new road is unavoidable, the old circulation routes together with the bridges or linkways should be retained and formed part of the heritage loop if feasible. **Landscape and Circulation Design Integration** Given the site's historic setting being a turf club, any new landscape design and circulation planning should respect the original terrain, operational relation and spatial hierarchy. This is especially important to the future landscape design for the retained inner ring of Track No.1 and ravine within, which were historically designated as open-air so that the slightlines from the grandstands would not be affected. Though the original landscape has grown over the years, attempts to introduce heavily wooded landscape should be avoided.

KEY ASPECT	POTENTIAL HERITAGE IMPACT	POSSIBLE JUSTIFICATIONS	POSSIBLE MITIGATION MEASURES
Access	Loss of significant routes, spaces and view corridors Privatisation – historic structures and spaces become inaccessible to public Loss of heritage values: • COMMUNAL AND SOCIAL • CONTEXTUAL		**Public Use Component** The communal and social value of the site is largely related to the two grandstands and main track (T1) which were historically accessible to the public while the rest of the buildings/ structure are more related to the operational needs as a Turf Club. Therefore, should the grandstands and main track be retained in future development, they should still be made available to the future users as well as the general public. The actual proposal of how the retained buildings/ structure, mainly bungalows, will be revitalised is currently unknown as future development plans are still under study, but the proposal should provide the public access to these heritage buildings to enable a better understanding and appreciation of this heritage site and history behind should be encouraged. **Interconnectivity within the Site** Ensure that significant circulation (both public and horseracing related), open spaces, main track and identified key view corridors are retained and remain legible and accessible. It is critical to enhance the interconnectivity within the site by re-using historic routing so that the public can still understand and appreciate how the Bukit Timah Racecourse used to operate.

KEY ASPECT	POTENTIAL HERITAGE IMPACT	POSSIBLE JUSTIFICATIONS	POSSIBLE MITIGATION MEASURES
Function	Inappropriate use of historic site/ buildings/ landscape Loss of identity/ heritage character Loss of heritage values: • AESTHETIC AND ARCHITECTURAL • HISTORICAL • COMMUNAL AND SOCIAL		**Compatibility of Use with Heritage Value** With the racecourse function already relocated to Kranji in 1999, the operation of the site under new uses began in 2000. The current development project will enable a more strategic review of the new functions/ programmes to be introduced within the site, especially to those retained buildings/structure/ spaces. Any proposals should be carefully reviewed to ensure they are compatible to the historic architectural configuration of the building/structure/ spaces, identified character-defining elements and spatial hierarchies. It is also understood that a balance between statutory/operational requirements and preservation of heritage fabric will need to be struck to ensure the long-term financial and environmental sustainability of the heritage buildings/structure/ spaces. **Historic Identity Leverage** The site of Bukit Timah Racecourse is rich in both its history and surviving heritage fabric that enables a colourful story to be told and an interesting visiting experience to be created. With its strong historic identity and social connections, the new development should embrace and leverage on the already established identity, even though the original function is lost and replaced by new residential use. This can be achieved through introduction of historic place naming and other heritage interpretation strategies.

KEY ASPECT	POTENTIAL HERITAGE IMPACT	POSSIBLE JUSTIFICATIONS	POSSIBLE MITIGATION MEASURES
Legibility	Partial alteration/ modification of historic fabric Loss of significant buildings/ structures Loss of original scale Loss of legibility of historic building type/ design Poor heritage presentation of retained historic fabrics and spaces Loss of heritage values: • AESTHETIC AND ARCHITECTURAL • HISTORICAL • CONTEXTUAL		**Retaining Significant Group/ Clusters in their Entirety** Considering the high contextual values of the site and various buildings/structure/ spaces within, clusters should be retained in their entirety where feasible so that the heritage values of each cluster and its legibility can be well maintained with minimum loss of heritage fabric. **Authentic Restoration and Unpick Past Modifications/ Alterations** Following the comprehensive understanding informed by the CMP, where there are sufficient record or physical evidence exist, an authentic restoration approach is recommended to revert the building's appearance to its original design with all modern modifications/ alterations are removed (eg. later added canopies, blocked verandahs, blocked vents, replacement windows/doors), supported by like-for-like repair strategy to enhance the legibility of the historic fabric and public's appreciation of their original design. **Honest and Sensitive Intervention** Any new intervention/ development shall be distinctive and sensitive but in the meantime respect the original fabric. The new design including the geometry, selection of materials and volume shall be restrained to avoid competing with the surviving fabric and the different senses of place of various retained buildings/ structure/ spaces. This would in return support the heritage interpretation to avoid confusion or misunderstanding of historic fabric.

KEY ASPECT	POTENTIAL HERITAGE IMPACT	POSSIBLE JUSTIFICATIONS	POSSIBLE MITIGATION MEASURES
Legibility (cont'd)			**Heritage Interpretation** Due to the large scale of the site, the heritage interpretation strategy is recommended to be comprised of an overall site-wide interpretation plan together with more detailed plans for various areas so that the public can better appreciate and fully understand its history, original function and extent, as well as connection with other retained heritage fabric within the site. The interpretation measures can consider a combination of traditional and modern techniques (such as AR, VR or other creative approach). **Documentation and Recording** Regularly establishing proper documentation using photographic and cartographic survey of the heritage asset is essential to understand and monitor its condition before any changes are considered or proposed. Proper documentation and recording prior to any planned modification or demolition are crucial as it stands the last chance to record before the historic fabric is lost. It is also recommended to adopt modern techniques, e.g. 3D scanning, drone survey or Heritage BIM to acquire more accurate and comprehensive survey and record information to facilitate future design and management & maintenance. **Heritage / Artefact Inventory** Prior to the commencement of construction works onsite, a heritage inventory or schedule of artefacts should be prepared. This should remain a live record, and updated as and when new discoveries onsite are found.

KEY ASPECT	POTENTIAL HERITAGE IMPACT	POSSIBLE JUSTIFICATIONS	POSSIBLE MITIGATION MEASURES
Fitness for Purpose	Partial alteration/ modification of historic fabric Loss of heritage values: • AESTHETIC AND ARCHITECTURAL • HISTORICAL	Compliance with building codes Enhancement of structural capacity associated with any change of use	**Safety in Use** It must be accepted that buildings shall be safe for people to use; it is a principal obligation on the part of government that it ensures its citizens shall be safeguard to a reasonable degree. Buildings constructed many years ago were typically built to standards that have been superseded. It follows that there is likely to be a dichotomy between retention of heritage fabric and reuse of historical buildings. It should therefore be expected that compliance is paramount, however, it does not follow that historical buildings need to be altered so much that they begin to resemble new buildings. Instead, ways should be sought to achieve compliance based on a performance-based approach rather than compliance per se. This will demand custom-made assessments to be made and bespoke solutions found. **Change of Use** A change of use of an historical building often triggers the requirement for stricter compliance and may in any case require an increase in say floor loading capacity, with possible harmful impacts on heritage value. For these reasons, any proposed change of use should be subject to careful consideration and only confirmed once it has been established that either the impacts are reasonable, or, that the change is compelling, without which the building cannot be retained at all.

9.9.2 General Measures

In support of those mitigation measures outlined in the impact assessment table, further details are outlined below.

Document and recording

Prior to any works onsite, the buildings, structures, and open spaces located within the affected study area, a photographic and cartographic survey should be completed. Photographs should be related to a layout plan and should be deposited in an appropriate archive. For the cartographic survey, this should be completed by 3D laser scan and to a pre-determined level of detail. This record can support future interpretation initiatives where a 3D digital record of the element can be recreated in a virtual environment.

For those buildings and structures to be demolished, it is recommended to salvage character-defining elements including any historical artefacts identified within this report, for re-use where feasible and appropriate within the future development plan, and/or within the future interpretation proposal within the site.

Disturbance to historical fabric

Disturbance to the retained historical fabric should be kept minimal as far as technically feasible.

Protection

To minimise disturbance, for those retained buildings and structures in proximity of the infrastructure works, temporary protective measures may need to be installed to safeguard the historic fabric. A protection plan should be developed in conjunction with the successful contractor. If necessary, some temporary structural supports may be required to those buildings or structures which may be at risk.

Monitoring

During the construction of the CRL line, adopt necessary monitoring to the retained buildings and structures within the study area, as well as the land for seismic activity and soil movements. The monitoring proposal for the proposed works should be agreed with the relevant authorities before commencement of work.

It is recommended that a pre and post condition survey should be carried out to record condition of the buildings and structures. The condition of the retained buildings and structures should also be inspected regularly during construction of the CRL line and station entrances.

Design Proposal

The development of the design of the new station entrances should minimise the visual impact to the retained historic buildings, structures, and open spaces. The proposed new entrance buildings should be of compatible design and be distinguishable from the existing historic buildings, structures, and open spaces.

The setting around the extant buildings and structures could be retained as far as possible to express their historical and cultural significance.

9.10 Overall Assessment

The impact assessment in Chapter 9.9 identifies impacts per each heritage asset. The impacts vary from Moderately adverse to Moderately beneficial. This reflects the loss of horse racing from the site – its principal heritage value – and the demolition and/or radical change to the spatial context of retained buildings. Set against that, the transfer of horse racing to Kranji and the consequent need for a future new use for Bukit Timah Racecourse, the proposed construction of a new MRT line (CRL 2) and railway station (CR14) will be beneficial to the future adaptive reuse of the site, which would otherwise lie under-utilised. Overall, the proposed infrastructure work is considered to represent an optimal solution that balances the potential heritage impacts and retention of substantial elements of heritage value by minimizing the extent of demolition through the use of different construction methods. The retention of some elements of heritage values is not only important in itself, but it also has the potential to enrich the future redevelopment and to offer spatial characteristics that are unique.

At this stage, there are no planned works for those extant buildings, structures and open spaces which are retained. To guide the next stage, and any planned redevelopment of the site, to ensure any proposals respect the cultural significance of extant fabric, and with positive heritage impacts, the following are a series of conservation guidelines that should addressed:

- Compatible uses shall be proposed for the retained buildings, whilst also allowing a specified level of public access, together with interpretation, to enable their heritage values to be understood. This will be beneficial for the future of the Site.
- Any new internal layouts in the retained buildings should respect the original design, particularly where they are redolent of their use for equestrian events.
- Alterations and additions necessary for statutory compliance and operational needs are considered acceptable in principle, subject to reasonable effort being made to mitigate adverse impact.
- As the design for individual retained buildings is developed, the treatment of the elements identified with neutral value in the CDE schedule should be further appraised.
- For the retained buildings, intrusive elements identified in the CDE schedule, are recommended to be removed where this would enhance the heritage values provided always that there is no associated adverse impact on historic fabric. Where removed, the retained fabric should be made good following conservation best practice and on a like-for-like basis.
- The alterations and additions to the open spaces are considered necessary to improve accessibility, but the impact on the Site and the surrounding environment should be implemented in a neutral manner where it is feasible to do so.
- Where new interventions can provide a beneficial impact on the heritage values, it is generally acceptable.

- All new interventions should be clearly distinguishable from the existing but respecting the heritage fabric .
- Connectivity and spatial context between retained buildings, structures and open spaces will be preserved and supported by Interpretation.
- An interpretation plan shall be implemented.

The impact assessment and subsequent mitigation measures is based on a preliminary infrastructure plan. The assessment should be updated as and when the infrastructure plan is finalised. It will require updating as soon as any redevelopment plan is published, so that the wider design proposals are assessed for their impact on the site historical and cultural significance. Beyond this, typically, key milestones for updating the impact assessment include the completion of the schematic and detailed design stages.

In general, if there are any changes to the infrastructure scheme and/or a redevelopment scheme is integrated into a site wider plan, the impact assessment and mitigation measure process should be repeated in full.

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10.0 Sustainable Management

10.1 Summary of the Way Forward

The mitigation measures in this impact assessment report set out the protection measures for the heritage assets within the study area affected by the proposed infrastructure works. Construction works shall follow the guidance set out in this impact assessment report.

A heritage conservation consultant should be appointed to the project team during the design and construction stage to ensure that the impact assessment and mitigations can be executed appropriately and effectively. The obligations for protection measures should be supplied to the contractor as part of the contract documents. During the construction stage, the heritage consultant should monitor the contractor's compliance with the provisions of this impact assessment report.

Should there be any material change to the design plans in the future that alters the degree or likelihood of impact, the assessment and recommendations in this report should be reviewed and updated if appropriate. Alternatively, a Conservation Management Plan (CMP) would conveniently provide a single point of reference that could address all aspects of heritage management and remain current throughout the design and construction phases, taking account of design changes, and into the foreseeable future.

Prior to any construction works on site, as a supplement to the character-defining elements schedule, each building should have a catalogue in the form of a heritage inventory or a schedule of artefacts for all loose or movable items. The record should remain live throughout the works, and be updated as new items are uncovered.

10.2 General

The former Bukit Timah Racecourse should be managed to best sustain and, where feasible, enhance its significance. The report has concluded that change is the inevitable consequence of the demise of horse racing at Bukit Timah and that change is necessary to ensure the site's long-term viability.

The project proponents, URA and LTA, therefore have a key role to play to ensure that the future design is developed having regard to the guidelines in this impact assessment. This will require scrutiny of the project scope and a further impact assessment to capture the redevelopment plan as a whole, including proposals for the future uses for the retained heritage assets.

It is recommended that a Conservation Management Plan for the site is prepared to establish a more comprehensive understanding of the site's history, development, and significance. A CMP would routinely include a policy framework geared toward the management of change. As such, it would provide a useful tool for the design team and ensure that consideration of heritage value and safeguarding of selected heritage assets is achieved.

In this concluding chapter, recommendations for heritage management are described.

10.3 Overall Management Policy

There are seven key overall management policies outlined as below:

1. The management of the former Bukit Timah Racecourse should be guided by its cultural significance and its interpretation strategy.
2. A Conservation Architect/ Heritage consultant should be appointed at the design stage to ensure the mitigation measures in the impact assessment are properly executed and complied with across the full duration of the project.
3. This current heritage research study is only an overview of the site and the buildings, structures and spaces contained within. The CDE schedule in Chapter 6.0 should be periodically reviewed and updated as and when any further historical research and/or field study is completed. This is particularly relevant for the individual buildings where access to them was limited during the site surveys, as well as there being no opening up and/or detailed investigations.
4. For buildings which will be demolished, where these have identified CDEs with positive contributions to the heritage values, a strategy for salvaging these and their re-use within the wider redevelopment should be agreed.
5. Engage expert consultants with experience of adaptation and new elements into heritage contexts.
6. Any changes, new uses, and alteration to built fabric, should not compromise the cultural significance of the Site and those buildings, structures and open spaces that will be retained.
7. The former Bukit Timah Racecourse site is of heritage interest, and any proposed works should not occur without prior consultation with all relevant stakeholders including the Urban Redevelopment Authority, and appointed heritage conservation professionals.

10.4 Impacts on the Historic Buildings and Site Post-completion

Since this impact assessment focuses on the CR14 station and associated tunnels only, the potential impacts from the future development of the site that may affect the historic fabric of buildings, structures, and open spaces across the site generally, should refer to separate impact assessments prepared for them.

10.5 Managing Change

It is recommend that management strategies are developed to maintain the significance of the former Bukit Timah Racecourse site, which recognises opportunities to reveal or reinforce its heritage values.

For those historic buildings that are retained, proper maintenance of them is an essential part of the conservation process, which should be commenced as soon as possible if not already in progress. Buildings that are empty are particularly vulnerable to degradation, especially in a sub-tropical climate such as in Singapore, most notably timber and reinforced concrete elements. A maintenance schedule should be developed and reviewed annually by building management and heritage conservation professionals

A maintenance schedule should include the following:

- Regular inspection of the condition of all character-defining elements (see section 6.2);
- Regular inspection of internal and external finishes and fittings;
- Regular cleaning of drainage and plumbing system; and
- Regular checking of the site drainage system, above- and below-ground.

The maintenance management plan should be reviewed annually by management and heritage conservation professionals with a thorough understanding of managing a heritage site to ensure the proper execution of the maintenance programme. This may need to include a maintenance manual with repair methods depending on the nature of issues encountered. Care should be taken to avoid any deterioration of heritage value arising from these works pending commissioning of the redevelopment and permanent adaptation works.

10.5.1 Before commencement of infrastructure works

The following requirements only applies to those buildings, structures, and open spaces within the study area. These tasks should be carried out by a heritage conservation consultant and structural/ geotechnical/ civil engineer as appropriate.

- Conduct a general 'building condition survey', including structural and geotechnical investigations on each of the retained historic buildings and structures;
- Carry out detailed surveys on the existing condition of each character-defining elements and other significant elements on each building and structure that will be demolished within the study area;
- Prepare photographic and cartographic records for all existing buildings, structures and open spaces;
- Prepare a heritage inventory or schedule of artefacts for all identified loose and movable items if any, in all buildings/ structures that are scheduled to be demolished;
- Conduct surveys of the site for seismic shifts and soil movements; and
- Design temporary protection works (if deemed necessary) and prepare a structural monitoring proposal for the affected historic buildings and structures.

10.5.2 During construction works

General

- Protective measures for the site surroundings (including around individual buildings) should be provided such as hoardings, fencing, scaffolding, tarpaulins, and temporary lighting. This is to protect the historic fabric, which should be in place before the commencement of works. These protective measures should be the subject of a protection plan, which should be prepared by the contractor and made subject to approval by the heritage conservation consultant; and
- Site notices and emergency procedures and guidelines should be displayed in visible locations within the work site.

Provide specifications and drawings

- Non-technical descriptions of the scope of work, detailed specifications, design drawings and schedules of the works and required quality standards shall be incorporated into the contract documents; and
- Requirements or standards of works that may affect the historic buildings should be incorporated into the contract documents. This includes but is not limited to the protection works, mitigation measures applying to character-defining elements, and including the listing of elements to be salvaged from buildings that are to be demolished.

Site supervision and documentation

- Periodic and regular site inspection and monitoring by heritage conservation consultants should be carried out throughout the construction works to ensure the historic fabric is protected in accordance with the requirements outlined in the specifications. The frequency and level of inspection should be increased during critical stages when potential threats are greatest. The inspection staff should be independent of the building contractor. A resident project technical officer and clerk of works with heritage conservation background is preferable;
- Documentation of the construction works, including site progress photos, record drawings, minutes of meetings and written records should be retained. This is important to record the history of the project and any matters raised that may impact on the historic fabric. Progress photos should be taken bi-weekly or at a frequency that is appropriate to the rate of progress, all to be incorporated into the site progress reports;
- All issues concerning the heritage fabric on site shall be reported to the appointed heritage conservation consultant; and
- Continuous monitoring of the land for ground movement and soil movements shall be carried out and documented in site progress reports.

10.5.3 After completion of the infrastructure works

- Photographic and cartographic records and condition surveys should be updated if applicable after completion of the works in the form of an 'As built' record;
- Any physical intervention, including repairs to the retained buildings that were necessary, should be documented in the form of an 'As built' record. This is vital to establish a clear record for the conservation history of repairs, conservation, restoration, development, or other actions that may affect individual buildings, and the site in general, in the future.
- Finalized heritage inventory or schedule of artefacts for all identified loose and movable items in all buildings/ structures that are demolished.
- A 'operation and maintenance manual' for the retained buildings, structures and open spaces should be implemented until the scope of proposed conservation associated with any redevelopment plan is available. Refer to 10.5.4.

10.5.4 Routine management and maintenance

Following completion of the infrastructure work, and prior to the commencement of any redevelopment work, prepare and implement a management and maintenance plan to maintain the retained historic buildings and structures. This should comprise a list of routine maintenance tasks for a site maintenance team to undertake. For example:

- general cleaning works;
- regular inspections and clearance of any blocked drains; and
- checking the conditions and safeguarding of character-defining elements.

10.5.5 Adoption, monitoring and review

- Annual review, update, and revision of the maintenance plan to ensure that policies remain effective;
- Should material changes occur (for example, storm damage) then this should automatically trigger a review;
- Reviews and updates should be carried out by a heritage consultant; and
- It is assumed that the public will not be admitted to the site during the infrastructure works.

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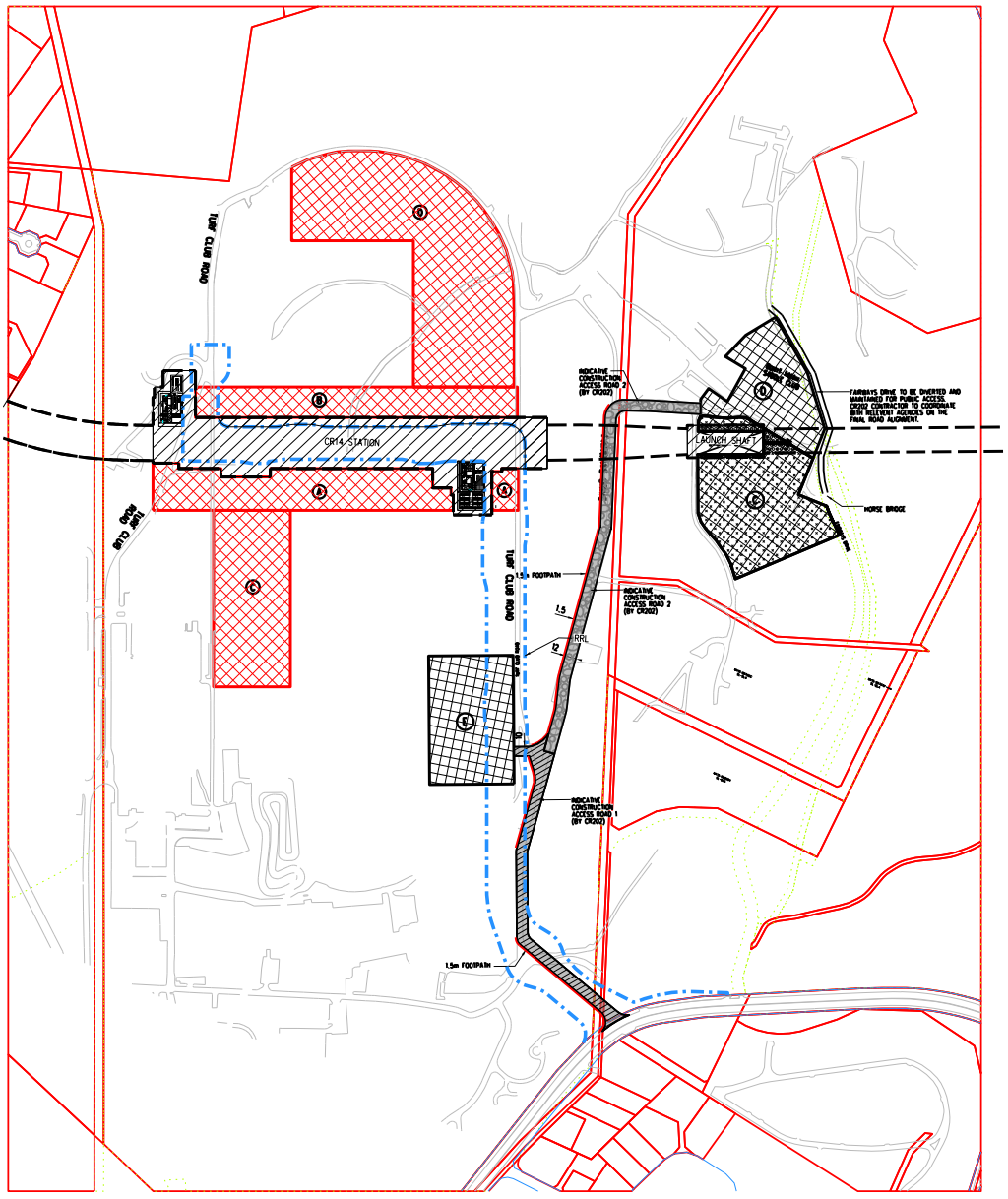
Appendix A: Infrastructure Plan Layout



Proposed infrastructure plan layout. (Source: LTA.)