



Broughton House, Clarence Street Sydney

Application for Heritage Floor Space

HFS Planning Report

Prepared for
The Owners of Strata Plan 16651 – Broughton House

April 2021 • Issue A
Project number 190060

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EXECUTIVE SUMMARY

Broughton House at 177-181 Clarence Street, Sydney is an eight-storey former warehouse building with a basement level. The building was originally constructed as a five storey warehouse in 1900. However, after a serious fire gutted the building in 1919, it was rebuilt to the designs of prominent architects Robertson & Marks in 1920 with a reinforced concrete structure and an additional four floors. The building operated as a warehouse serving various different functions until 1979, when it was adapted to residential apartments and converted to a strata title. Broughton House makes a significant aesthetic contribution to King, Kent and Clarence Streets and is a fine example of a late Victorian warehouse exterior. It is historically significant as an early example of the use of reinforced concrete in city buildings, and the adaptation of warehouses for residential use.

The building has been assessed in the Conservation Management Plan (CMP) to be of high cultural significance at a local level. The building has a high level of integrity externally and is in good condition. The interiors have been maintained to a high quality but the external facades require conservation works. It is included as an item of cultural heritage in Schedule 5 of the *Sydney Local Environmental Plan 2012* (SLEP 2012) (item no. I1718). Broughton House is identified as SP 16651.

The application for the award of Heritage Floor Space (HFS) has been prepared for the building owners by Tanner Kibble Denton Architects (TKD Architects), in accordance with the relevant controls outlined in the SLEP 2012 and the *Sydney Development Control Plan 2012* (SDCP 2012).

Whilst a previous application for transferrable floor space was submitted in 1990, this application was later withdrawn and there is no evidence of an application or transfer of development rights / heritage floor space registered with the City of Sydney. The applicant requests consideration of staged award of transferable floor space based on the completed conservation works and the programmed façade repair works to be completed this year. This planning Report supports this HFS Application, which seeks an HFS award of **4,996sqm** for the site at 177-181 Clarence Street.

As part of this application the total gross floor area (GFA) and height of the conserved heritage building on the site is identified to enable the placing of a restrictive covenant on the Certificate of Title to limit future development in accordance with Council's HFS planning controls. The GFA of the heritage building has been calculated in consultation with Council Staff.

The Heritage GFA of Broughton House, as conserved is **6,462sqm**. The height of Broughton House, as conserved, is RL57.36, corresponding to existing ground levels.

Since 2002 conservation and repair works have been undertaken to the building including substantial repairs to the roof. Repairs and conservation works to the façade have been approved as Heritage Works (exemption from development consent) (HWC/2019/294) on 28 August 2019.

Approval of this application and the award of HFS to Broughton Hall will contribute to the supply of HFS needed by new development in Central Sydney. It will also provide the owners of Broughton Hall with a new opportunity to access additional funding to continue their maintenance of the building.

1 INTRODUCTION

1.1 Purpose of the report

This report has been prepared on behalf of The Owners of Strata Plan 16651 to support the application for the endorsement of the Conservation Management Plan (CMP) (refer APPENDIX A) and the award of Heritage Floor Space (HFS) by the City of Sydney for the property known as Broughton House at 177-181 Clarence Street, Sydney. These documents support an application seeking the following:

- Approval of the CMP dated April 2021; and
- Award of HFS for Broughton Hall on the basis of the good condition of the building and conservation works completed since 2002 as outlined in the CMP.

In accordance with Clause 6.10(2) 'Creation of heritage floor space' of the *Sydney Local Environmental Plan 2012* (SLEP 2012), Council may award heritage floor space in respect of a person if the following provisions are met:

- a) *the person is the owner or the nominee of the owner of a building that is a heritage item shown marked '**' in Schedule 5 (a heritage building), and*
- b) *the heritage building is on land in Zone B8 Metropolitan Centre, and*
- c) *conservation works have been carried out on the heritage building and have been completed in accordance with a heritage conservation management plan approved for the building by the consent authority, and*
- d) *a covenant is registered that prevents development that increases the total gross floor area of all buildings on the site on which the heritage building is located or that increases the height of the heritage building, and*
- e) *an amount of heritage floor space has not been recorded in the previous 25 years (under this clause or under a similar scheme in force before the commencement of this Plan) in respect of the heritage building; and*
- f) *no other building has utilised floor space that was available to it only because, at the time the floor space was utilised, the building was on a site that included the heritage building or that included part of the site occupied by the heritage building.*

Broughton House is listed as heritage item I1718* ('Former Broughton House warehouse including interiors') in Schedule 5 of the SLEP 2012 and is also located in the B8 Metropolitan Centre Zone. The relevant planning instruments and policies, including the SLEP 2012 are addressed in more detail in Section 4. Whilst a previous application for the transfer of development rights for floor space was undertaken on behalf of the owners of the building in 1990, this application was later withdrawn and there is no evidence of an application or transfer of development rights / heritage floor space registered with the City of Sydney. In light of the preceding information, Broughton House satisfies the requirements and is eligible for the award of HFS.

1.2 Report Structure

The details of the application are set out in this report as follows:

Section 1 sets out the purpose of the report.

Section 2 provides an overview of the site, including its location, existing building, site ownership and overview of previous development consents.

Section 3 summarises the conservation methodology at Broughton House, including a summary of the CMP, conservation works which have been completed, and the ongoing conservation, maintenance and interpretation works.

Section 4 summarises the statutory planning context applicable to the application.

Section 5 details the HFS award sought by this application.

Section 6 includes an assessment of the application.

Section 7 provides a conclusion of the application.

Appendices contain relevant documents to assist in the assessment and determination.

1.3 Author identification

This document was prepared by Sarah-Jane Zammit, Heritage Specialist and Roy Lumby, Senior Heritage Specialist, and was reviewed by Megan Jones Practice Director of Tanner Kibble Denton Architects.

2 SUBJECT SITE

2.1 Site Location

Broughton House is located at 177-181 Clarence Street on the south-western corner with King Street. It is bound by King Street to the north and Kent Street to the west. The building is bound to the south by the Substation 164 development site at 183-185 Clarence Street.

The property is a strata titled building, identified as SP 16651.



- 1 Aerial site plan, not to scale. Broughton House at 177-181 Clarence Street is outlined in red.

Source: NearMap with TKD Architects overlay.



2.2 Existing Building

Broughton House is an eight storey building on a prominent site, the exterior of which is a fine example of the Victorian Mannerist style. It was built in two stages between 1882 and 1914 to the design of architects Mansfield Brothers and Kent, Budden & Greenwell respectively for John Keep & Sons. After a fire in 1919 the building was rebuilt, and two additional storeys added to the design of architects Robertson & Marks. The building was adapted to residential apartments in the early 1980s to the design of architect John Poiner.

Broughton House is historically significant as evidence of the consolidation of warehousing in the western section of Central Sydney and as a very early example of a city building with a reinforced concrete structure. It also has historical significance as an early example of the adaptive reuse of a late nineteenth/early twentieth century warehouse in the last quarter of the twentieth century.

It has important associations with the important architectural partnership, the Mansfield Brothers, and the original sections of façades furnish a good representative example of their architecture. It is also associated with the historically significant ironmonger and merchant John Keep. It also has associations with the prominent architectural practices Kent, Budden & Greenwell and Robertson & Marks.

The building's exterior is a fine and representative example of the Victorian Mannerist style and the external treatment of warehouses during the late nineteenth century. It makes an important contribution to the streetscapes of King, Clarence and Kent Streets. The facades are in poor to fair condition whilst the interiors are in good condition.

While no major modifications to the building have occurred since 1979, the roof terrace has been upgraded to provide ancillary recreation functions and includes a shade structure, BBQ area, toilets and kitchenette. These modifications have increased the amenity of the tennis court and roof terrace.



2 Broughton Hall as seen at corner of King and Kent Streets (L), and Broughton House awning and entrance on Clarence Street (R).

Source: TKD Architects, 2021.



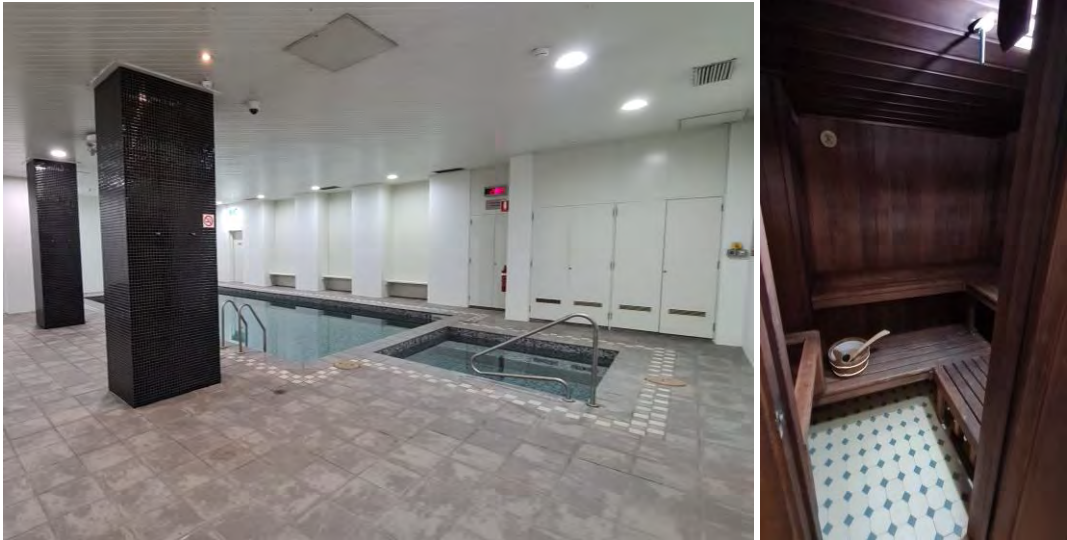
3 Exterior detailing to Broughton House.
Source: TKD Architects, 2021.



4 Internal lightwell and rooftop additions at Broughton House.
Source: TKD Architects, 2021.



5 Broughton House entrance and Lobby.
Source: TKD Architects, 2021.



6 First floor common facilities including lap pool, spa and sauna.
Source: TKD Architects, 2021.



7 Typical detailing to common areas and corridors on each floor.
Source: TKD Architects, 2021.



- 8 Interiors of an apartment on Level 2.
Source: TKD Architects, 2021.

2.3 Site ownership

Broughton House was converted from Torrens to Strata Title and was legally registered as Strata Plan 16651 on 18 March 1981. The Owners of Strata Plan 16651 are subject to the ownership requirements specified in SP 16651.

2.4 Previous Development Consents

A review of the City of Sydney's records has identified the following development consents and construction certificates as listed in the following table. It has not been ascertained whether or not all of these works were undertaken.

Whilst no records of conservation works to the building have been noted or registered in the City of Sydney's records, ongoing repairs and maintenance has been undertaken at the property as outlined in Section 3.3 of this report. Of particular note are applications **D2/11/02/0189** and **B2/1431/79** in 1979 which seeks the adaptation of the building into residential use. At this time it is assumed the building underwent extensive restoration, because an application in 1990 sought for transferrable development rights in respect to restoration works. Heritage Works (exemption from development consent) for repairs to the roof and façade were approved in 2016 and 2019. These applications have been shaded grey in the table below.

A previous application for the transfer of development rights for floor space was undertaken on behalf of the owners of the building in 1990, however this application was later withdrawn and there is no evidence of an application or transfer of development rights / heritage floor space registered with the City of Sydney.

Application No.	Date	Description
	12 May 1919	John Keeps & Sons warehouse (post fire restoration)
	29 September 1921	Broughton House (upper storey addition)
B1/546/21	29 September 1921	Alts – entrance etc
B1/821/31	14 December 1931	Theatrette
B1/605/33	5 September 1933	Alterations to partitions floor 1 & 2
B1/477/35	19 June 1935	Partitions
B1/593/35	26 July 1935	Alterations 1 st floor
B1/327/42	4 August 1942	Penthouse
B1/88/43	18 March 1943	Roof over light area
B1/1148/46	30 December 1946	
B2/42/48	16 January 1948	Mech vent to room
B2/942/48	21 October 1948	Partitions 4 th floor
B2/1301/51	13 September 1951	Alts to partitions 5 th floor
B2/1618/53	28 October 1953	Alts to partitions 1 st floor
B2/1713/53	10 November 1953	Alts to partitions 1 st floor
B1/1325/53	10 November 1953	Development Application use of premises as an office & showrooms for photographic reproduction
B2/766/55	3 May 1955	Partitions ground floor
B1/411/56	12 June 1956	Use premises for purpose of a showroom & offices
B2/1081/56	12 June 1956	Partition wall 1st floor
B2/1201/56	29 June 1956	First floor
B2/14/3/56	30 September 1956	Alts + Adds to lift well etc
B2/275/57	8 February 1958	Partition 7 th floor
B2/1095/58	2 June 1958	Alts to cart dock
B2/1335/58	4 July 1958	Partitions 6 th floor
B2/432/59		Replacing cement render at front of premises
B2/801/59	9 April 1959	Partitions etc
B2/1170/59	25 May 1959	Tiling to front at 181
B2/1464/59	30 June 1959	Radio mast
B2/2732/59	20 November 1959	Partitions 4 th floor
B2/1293/61	22 June 1961	Internal alts, 1 st floor
B2/71/63	15 January 1963	Mechanical vent 1 st floor
B2/889/64	20 April 1964	Partitions 2 nd floor
B2/1669/64	17 July 1964	Alterations
B2/2573/64	22 October 1964	Partitions
B2/624/65	23 March 1966	Partitions 3 rd floor
B2/246/70	16 May 1970	Air conditioning supply first and fourth floor
B2/423/70	24 July 1970	DA for the premises as a printing department
B2/168/71	18 February 1971	Partitions 5 th floor
B2/395/73	17 July 1973	Propose use of room 17
B2/69/73	27 November 1973	
B2/138/75	18 March 1975	DA Use premises for the making of dresses
B2/1275/78	5 October 1978	Reusal (?)
D2/11/02/0189	12 March 1979	DA Alterations to convert premises into home units
B2/1431/79	17 September 1979	Conversion of existing premises to residential flats (61 units)
45/80/0238	20 February 1980	Air conditioning

Application No.	Date	Description
45/82/0809	10 June 1982	Enclose Balcony 3 rd floor Unit 34
45/82/0814	11 June 1982	Install window to Unit 66
44/82/0445	25 June 1982	Enclosure of balcony (units 13 & 14)
45/82/0816	28 June 1982	Enclosure of balconies
45/82/0873	24 June 1982	Enclosure of balcony (Unit 24)
45/82/1104	10 August 1982	Enclosure of balcony (4 th floor)
75/82/1111	11 August 1982	Enclosure of balconies
45/82/1475	28 October 1982	Close in balcony Unit 74
12/85/88	15 September 1988	Use lot 62 for display of toys
45/89/244	21 March 1989	Partition 4 th floor
45/89/980	6 October 1989	Add kitchen wall and fitout, relocate bedroom wall, Unit 47 floor 4
DA/694/90		Re-position partitions lot 23 3 rd floor
DA/604/90	24 October 1990	Reposition partitions lot 23 (unit 37) 3 rd floor – revert to residential
DA/624/90	30 October 1990	Application for transferable floor space bonus in respect of restoration
DA/635/90	2 November 1990	Use part lot 29, Unit 44 4 th floor, for display of electronic equipment
DA/238/91	20 March 1991	Refurbishment, retiling, repainting
DA/167/93	3 March 1993	Unit 28 various alts
DA/111/93	3 March 1993	Install aluminium window to kitchen, sliding door unit to replace windows in living room & bedroom & infill living room window/door – Unit 28
DA/283/93	2 June 1993	Consolidate lots 48 & 49 involving minor alterations
DA/1010/93	11 October 1993	Alts to Units 65, 66
DA/275/94	14 March 1994	Install alum. windows
DA/740/94	21 July 1994	Open passage
D/2006/616	15 May 2006	Alteration of units 72 & 73 within Broughton House to create a single residence. Includes the demolition of existing walls and the addition of new partitions
D/2006/860	23 June 2006	Removal and addition of interior partitions within Unit 62 of Broughton House.
D/2006/1595	23 October 2006	Internal renovations and combining Units 25 & 26 by demolishing one intertenancy wall within Broughton House.
D/2006/1595/A	11 April 2008	S96(1A) Change condition 1(a) to include drawing S96 1.0 and S96.02 which illustrates modification to new layout.
D/2009/1835	27 November 2009	Internally combine residential flats 46 & 47, including new openings, removal of non-structural walls, relocation of kitchen, new enclosed balcony and upgrade of bathrooms.
D/2012/487	27 April 2012	Internal alterations to unit no. 56 and enclose balcony with a new window.

Application No.	Date	Description
D/2015/1804	02 February 2016	Alterations to apartments 72-73 and 74 of 'Broughton House' including removal of non-structural wall, construction of internal partitions and the replacement and reinstatement of 3 windows.
HWC/2016/220	26 July 2016	Replacement of existing roof terrace membrane.
D/2016/1384	25 November 2016	Alterations and additions to the roof top level of an existing residential flat building including replacement clubhouse roof, resurfacing of the existing tennis court and new landscaping.
D/2017/712	18 July 2017	Alterations to apartment 67 within Broughton House including the installation of 3 new windows internal alterations including the removal and construction of internal partitions, installation of new kitchen and bathroom.
HWC/2019/294	28 August 2019	Conservation works to façades.

3 CONSERVATION MANAGEMENT PLAN

3.1 Overview and Structure

A Conservation Management Plan (CMP) for Broughton House has been prepared by Tanner Kibble Denton Architects and is provided at APPENDIX A. The purpose of the CMP is to guide the conservation and management of the cultural heritage significance of the site. It is also intended to assist the property owners to manage maintenance and any new works to the building. The CMP includes an analysis of the site in terms of its heritage significance and provides detailed conservation policies and guidelines to conserve the heritage significance of the site.

The CMP has been prepared with reference to the *NSW Heritage Manual 1996*, the *Australia ICOMOS Burra Charter 2013* and *The Conservation Plan* by James Semple Kerr.

The CMP has been submitted for approval by the City of Sydney Council as part of this application for the award of HFS.

3.2 Statement of Significance

The following Statement of Significance is taken from the CMP prepared by Tanner Kibble Denton Architects in February 2020.

Broughton House is historically significant as evidence of the consolidation of warehousing in the western section of Central Sydney and as a very early example of a city building with a reinforced concrete structure. It also has historical significance as an early example of the adaptive reuse of a late nineteenth/early twentieth century warehouse in the last quarter of the twentieth century.

It has important associations with the important architectural partnership, the Mansfield Brothers, and the original sections of façades furnish a good representative example of their architecture. It is also associated with the historically significant ironmonger and merchant John Keep.

The building's exterior is a fine and representative example of the Victorian Mannerist style and the external treatment of warehouses during the late nineteenth century. It makes an important contribution to the streetscapes of King, Clarence and Kent Streets.

3.3 Conservation Works Completed

As part of the 2002 CMP for the building, a number of conservation recommendations were listed in Section 7 for implementation in the building. In general, the building has been maintained in good condition in keeping with the general maintenance and cleaning recommendations of the 2002 CMP.

On 28 August 2019 an application for Heritage Works (exemption from development consent) was granted by City of Sydney Council (HWC/2019/294). The exemption includes approval for façade repair and maintenance works which include repointing, cleaning, replacement of damaged brickwork, replacement of drummy render and concrete and rust treatment (refer tender package at APPENDIX G).

These works are programmed to be completed in 2021 as part of this application to satisfy the conditions of the award for HFS.

3.4 Ongoing Conservation and Maintenance

Although the building is generally in good repair and is well maintained, regular maintenance is required to conserve the building's identified significant fabric. In addition to the conservation policies and guidelines provided at **Section 7** of the CMP, the CMP includes the following documents to guide the maintenance of the building.

- Future conservation works outlined in Section 6.3 of the CMP
- Cyclical Maintenance plan provided at Appendix C of the CMP
- Policies and guidelines related to alterations and additions to the exterior and interior of the building are discussed at Section 7.5.8 of the CMP

3.5 Heritage Interpretation

Interpretation uses a range of methods and techniques to present and deliver information to visitors and site users. It is intended to assist people in gaining an understanding and appreciation of the history and heritage significance of the place, using narratives based on key themes and messages to organise the information. Because Broughton House has retained a high level of integrity, particularly in its exterior, it can be easily interpreted through its building fabric and tangible items within the building.

Section 7.4.4 of the CMP outlines the policy and guidelines for the interpretation of Broughton House, which are summarised below:

- Utilise any original building fabric in common areas and individual suites as part of the interpretation of Broughton House.
- Install a well-designed interpretive panel in the ground floor common area that explains the history of the place and the architecture and designer of the building. The panel should not obscure or detract from the important aesthetic qualities of the place.
- Retain and conserve any original building signage as a means of enhancing interpretation.
- Integrate conservation outcomes with interpretation, so as to enhance the site's ability to 'tell the story'.
- Interpretation should seek to communicate with a wide variety of people through a range of communication methods, responsive to the needs of potential audiences within the local and wider community.

4 STATUTORY PLANNING FRAMEWORK

4.1 Sydney Local Environmental Plan 2012

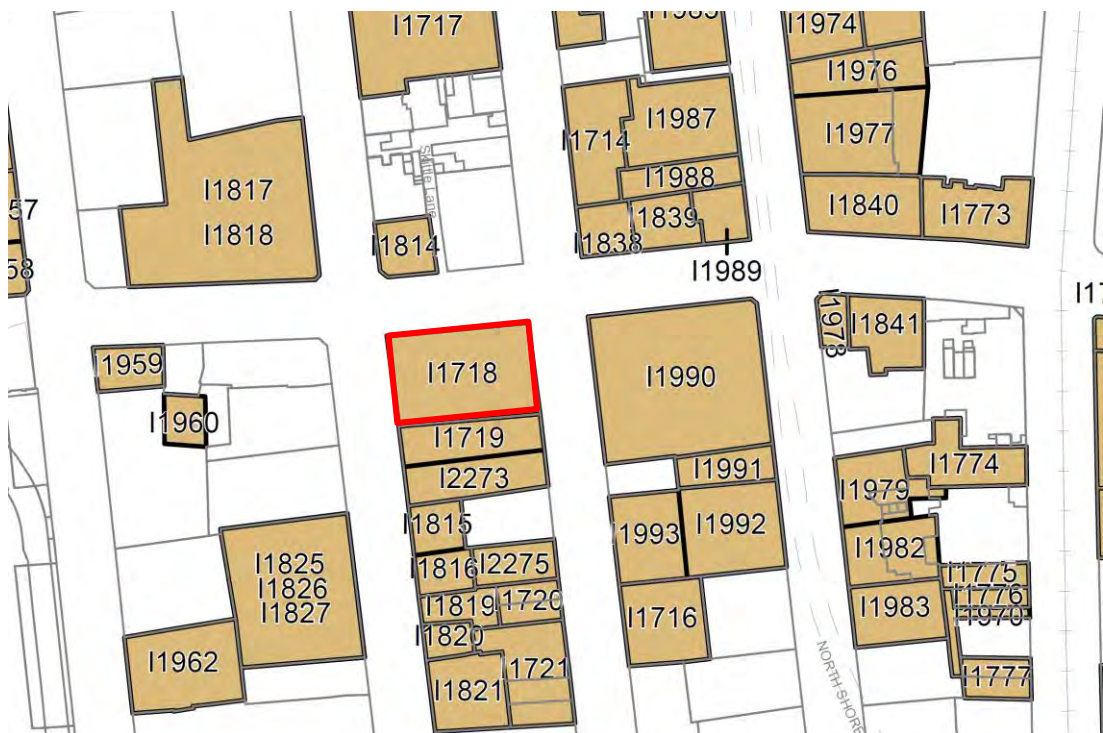
The Sydney Local Environmental Plan 2012 (SLEP 2012) is the principal environmental planning instrument applicable to the site and provides the relevant controls for the award of HFS.

Clause 6.10(2) 'Creation of heritage floor space' in the SLEP 2012 outlines the provisions that must be met for Council to award heritage floor space in respect of a heritage item. A response to each of the provisions is provided below.

- (a) the person is the owner or the nominee of the building that is a heritage item shown marked '**' in Schedule 5 (a heritage building).

Broughton House at 177-181 Clarence Street, Sydney is listed as a heritage item in Schedule 5 of the SLEP 2012. It is also shown as a heritage item in SLEP 2012 Heritage Map 014. Clause 6.10(2)(a) requires that the heritage building that is the subject of the award is identified with an asterisk '**' in Schedule 5. The entry for Broughton House in Schedule 5 of the SLEP 2012, and its nominated heritage area on the Heritage Map (Figure 9) is outlined below.

Locality	Item Name	Address	Property Description	Significance	Item No.
Sydney	Former "Broughton House" warehouse including interior	177-181 Clarence Street	Lot 1, DP 522846 (SP 16651)	Local	I1718*

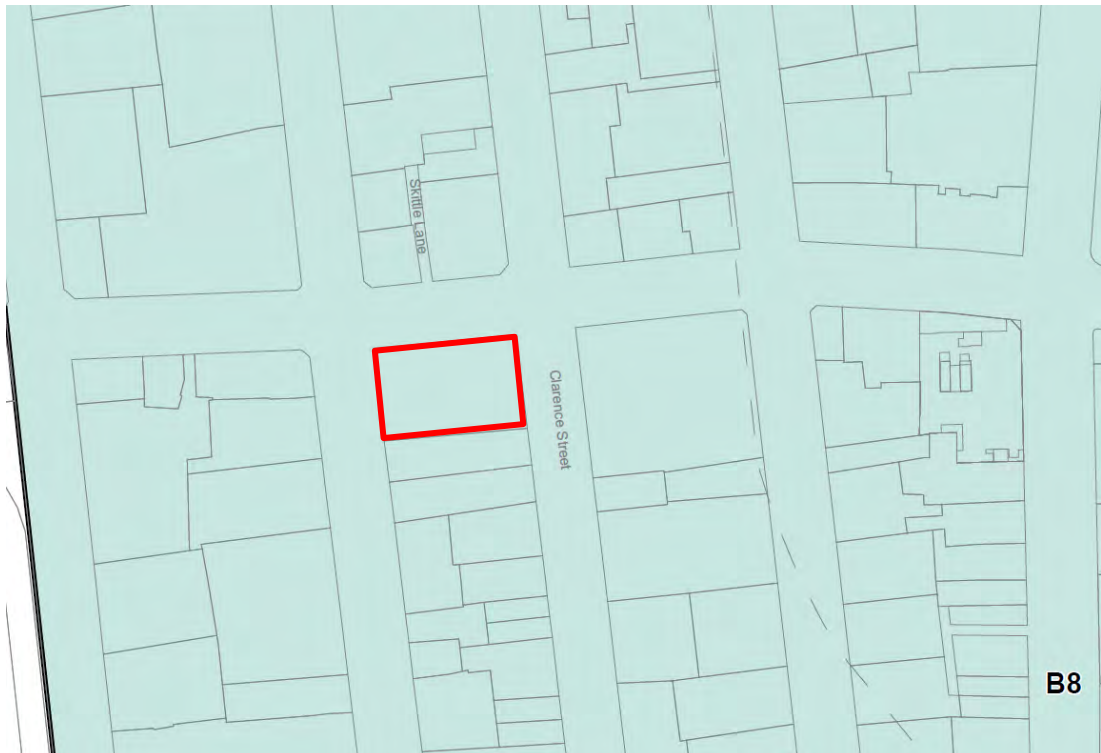


9 Extract from City of Sydney LEP 2012, Heritage Map (014).
 Broughton House, 177-181 Clarence Street – Item I1718 is outlined in red.
 Source: City of Sydney LEP 2012, TKD Architects overlay.



(b) the heritage building is on land in Zone B8 Metropolitan Centre

Broughton House, 177-181 Clarence Street, Sydney is located in the B8 Metropolitan Centre Zone under the SLEP 2012 as illustrated in Figure 10.



10 Extract from City of Sydney LEP 2012, Zoning Map (014).
Broughton House, 177-181 Clarence Street is outlined in red.
Source: City of Sydney LEP 2012, TKD Architects overlay.



(c) conservation works have been carried out on the heritage building and have been completed in accordance with a heritage conservation management plan approved for the building by the consent authority.

A CMP has been submitted with this application for endorsement by City of Sydney Council (refer APPENDIX A). The CMP outlines the conservation works which are proposed and have been completed in the past at Broughton House. These works have also been detailed in Section 3.3 of this application. Certification of the conservation works proposed and completed in accordance with the following development consents have been provided by Tanner Kibble Denton Architects (refer APPENDIX C).

Conservation Works – Development Consents

On the recommendations of the 2002 CMP conservation works have been undertaken as part of the regular maintenance of the property as outlined in Section 3.3 of this report.

On 28 August 2019 an application for Heritage Works (exemption from development consent) was granted by City of Sydney Council (HWC/2019/294). The exemption includes approval for façade repair and maintenance works which include repointing, cleaning, replacement of damaged brickwork, replacement of drummy render and concrete and rust treatment (refer tender package at APPENDIX G)

These works are programmed to be completed in 2021 as part of this application to satisfy the conditions of the award for HFS.

- (d) a covenant is registered that prevents development that increases the total gross floor area of all buildings on the site on which the heritage building is located or that increases the height of the heritage building.**

A restrictive covenant will be registered on the title for the land that will limit any future redevelopment of Broughton House at 177-181 Clarence Street to the total GFA and height of the conserved heritage building. It is anticipated that Council as the consent authority will place a condition of any approval requiring such a covenant to be in place prior to the registration of the award of HFS.

- (e) an amount of heritage floor space has not been recorded in the previous 25 years (under this clause or under a similar scheme in force before the commencement of this Plan) in respect of the heritage building.**

A previous application for the transfer of development rights for floor space was undertaken on behalf of the owners of the building in 1990, however this application was later withdrawn and there is no evidence of an application or transfer of development rights / heritage floor space registered with the City of Sydney.

- (f) no other building has utilised floor space that was available to it only because, at the time the floor space was utilised, the building was on a site that included the heritage building or that included part of the site occupied by the heritage building.**

No developable floor space has been registered or transferred from Broughton House.

4.2 Development Control Plan 2012

Section 5.1.9 of the *Sydney Development Control Plan 2012* (SDCP 2012) provides provisions for the 'Award and allocation of heritage floor space'. The award and allocation procedures can include:

"the ability for the owner of a heritage building, subject to meeting certain criteria, to be awarded development potential known as Heritage Floor Space after completing conservation works to that building."

The award of HFS is limited to buildings which are listed in their entirety as heritage items in Schedule 5 of the SLEP 2012. Broughton House at 177-181 Clarence Street as outlined in Section 4.1 meets these criteria.

Broughton House's compliance with the relevant provisions of Section 5.1.9 of the SDCP 2012 is outlined in the following table.

DCP Provision	Response	Compliance
5.1.9.1 Eligibility		
(1) To be eligible for an award of HFS, a heritage building is to be:		
(a) located in the Central Sydney area;	Broughton House is located at 177-181 Clarence Street, which is located in the Central Sydney area.	Yes
(b) subject to conservation work in accordance with an approved Conservation Management Plan; and	Concurrent endorsement of the CMP by the City of Sydney is sought as part of this application. The award of HFS is on the basis of the exempt heritage works (HWC/2019/294) to repair and maintain the façade of the building to be completed in 2021, as well as the overall good condition of the building and conservation works completed after 2002 as outlined in the CMP in Section 3.3 of this report.	Yes
(c) not subject to works that would increase the external envelope and floor space of the building, other than a minor increase to facilitate the adaptive re-use of the heritage building.	Broughton House has not been subject to previous works which have increased the external envelope and floor space of the building.	Yes
5.1.9.2 Pre-requisites		
(1) Prior to registration of the HFS, the applicant must complete the conservation works in accordance with the Conservation Management Plan and enter into legal agreements and grant covenants on the land which:		
(a) limit any future redevelopment of the site to the total gross floor area and height of the conserved heritage building; and	A restrictive covenant will be registered on the title by way of condition of consent. The covenant will limit any future redevelopment of the site to the total GFA and height of the conserved heritage building.	Yes
(b) ensure the ongoing conservation of the building by regular maintenance, including the provision of adequate insurance and a maintenance fund.	<p>The CMP outlines policies and guidelines around the conservation and record of maintenance and change in Section 7.3.5 and Section 7.5.2.</p> <p>Appendix C of the CMP contains the cyclical maintenance schedule which outlines the regular maintenance required for the ongoing conservation of the building.</p> <p>Refer to APPENDIX E and APPENDIX F of this report for details relating to insurance and sinking fund for the ongoing maintenance of the property.</p>	Yes

DCP Provision	Response	Compliance
(2) A Conservation Management Plan for the heritage item is to be approved by the consent authority and is to generally include:		
(a) works to conserve the existing significant fabric of the building;	<p>The award of HFS is on the basis of the exempt heritage works (HWC/2019/294) to repair and maintain the façade of the building to be completed in 2021, as well as the overall good condition of the building and conservation works completed after 2002 as outlined in the CMP in Section 3.3 of this report.</p>	Yes
(b) removal of elements that detract from the significance of the building;	<p>The CMP outlines the policies and guidelines arising from heritage significance in Section 7.4, Policy 8. stipulates that previous inappropriate maintenance or repair works should be replaced when practicable. The guidelines in Section 7.4.1 includes a table which outlines the recommendations for the management based on the level of significance of the fabric or space.</p> <p>Guidelines to Section 7.4, Policy 8 explain that work to the building should conserve the integrity of individual built elements in accordance with their significance, and that no works should be proposed which will compromise and negatively impact the significance as assessed in the CMP.</p> <p>Levels of significance for each elevation and floor are assessed in Section 5 of the CMP.</p>	Yes
(c) the schedule of maintenance works;	<p>Appendix C of the CMP contains the cyclical maintenance schedule which outlines the regular maintenance required for the ongoing conservation of the building.</p>	Yes

DCP Provision	Response	Compliance
(d) reinstatement of original fabric based on documentary evidence where appropriate; and	<p>Section 7.4, Policy 8 of the CMP stipulates that conservation work should adopt a holistic and evidence-based approach.</p> <p>Section 7.5.2, Policy 13 stipulates that surviving evidence of early external decorative colour schemes should be investigations should be used to inform future colour schemes in significant spaces.</p>	Yes
5.1.9.3 Calculating HFS to be awarded		
(1) The maximum amount of HFS measured in sqm that may be awarded to a heritage building is to be calculated using Formula 1 – rateable buildings in private ownership and Government Buildings.	Section 5 of this report includes the calculations of HFS to be awarded. The application seeks the award of HFS in the order of 4,996sqm .	N/A
5.1.9.7 HFS procedures and administration		
(1) An application for an award of HFS is to include a Conservation Management Plan for conservation works and ongoing maintenance of the building.	<p>A CMP is submitted with this application for endorsement by the City of Sydney Council (refer APPENDIX A).</p> <p>Appendix C of the CMP contains the cyclical maintenance schedule which outlines the regular maintenance required for the ongoing conservation of the building.</p>	Yes
(4) HFS may only be allocated and used once in a development.	Noted.	N/A

5 HERITAGE FLOOR SPACE

5.1 Overview

The proposal is limited to a request for the award of HFS on the basis of conservation works planned and completed at Broughton House at 177-181 Clarence Street, Sydney, as outlined in the CMP.

As discussed in Section 4 of this report, Broughton House satisfies the requirements of the relevant planning instruments and policies and is therefore eligible to be awarded HFS.

Section 5.1.9.2 of the SDCP 2012 outlines the formula for calculating the amount of HFS that can be awarded to heritage buildings:

Formula 1 applies to	rateable buildings in private ownership and Government buildings.
The formula is	$HFSH = 0.5AS \times FSRH$
Where	HFSH is the maximum amount of Heritage Floor Space which may be awarded in sqm;
	AS is the site area in sqm occupied by the heritage building; and
	FSRH is the maximum FSR for the site of the heritage building as shown on the LEP FSR Map.

- 11 Calculating heritage floor space to be awarded.
Source: Sydney Development Control Plan 2012, p. 5.1-27.

5.2 Calculation of Heritage Floor Space

Clause 4.4(2) of the SLEP 2012 prescribes the maximum FSR for the subject land, which is 8:1.

Criteria	Proposed Grant of HFS (2019) A
Site area	1,249sqm
FSR (SLEP 2012)	FSR 8:1
Calculation of HFS	$0.5 \times 1,249 \times 8 = 4,996\text{sqm}$

The site area is defined in accordance with the following definition from the SLEP 2012:

Site area means the area of any land which development is or is to be carried out. The land may include the whole or part of one lot, or more than one lot if they are contiguous to each other, but does not include the area of any land on which development is not permitted to be carried out under this Plan.

In summary, the application seeks the award of **4,996sqm** of HFS for the site at 177-181 Clarence Street, Sydney – the building known as Broughton House.

The applicant requests consideration of partial award of transferrable floor space based on the completed conservation works and to provide funding for the façade repair works.

5.3 Reduction to the Maximum Award of HFS

Section 5.1.9.3(2) of the SDCP 2012 provides for the consent authority (City of Sydney) to reduce the maximum amount of HFS that may be awarded by an amount equivalent to:

(a) any existing additions to the heritage building which the consent authority does not consider feasible to be demolished or altered even though those alterations and additions are:

- (i) of little or no significance to the heritage significance of the building; or*
- (ii) intrusive to the building*

(b) any proposed addition which increases the gross floor area of the existing heritage building; and

(c) any areas where elements of heritage significance are proposed to be demolished, in order to facilitate the adaptive re-use of the heritage building.

In accordance with the SLEP 2012, GFA is defined as:

Gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of wall separating the buildings from any other building, measured at a height of 1.4 metres above the floor, and includes:

- (a) the area of a mezzanine, and*
- (b) habitable rooms in a basement or an attic, and*
- (c) any shop, auditorium, cinema, and the like, in a basement or attic,*

but excludes:

- (d) any area from common vertical circulation, such as lifts and stairs, and*
- (e) any basement:*

- (i) storage, and*
- (ii) vehicular access, loading areas, garbage and services, and*

- (f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and*
- (g) car parking to meet any requirements of the consent authority (including access to that car parking),*
- (h) any space used for the loading or unloading of goods (including access to it), and*
- (i) terraces and balconies with outer walls less than 1.4 metres high, and*
- (j) voids above a floor at the level of a storey or storey above.*

The GFA for Broughton House at 177-181 Clarence Street is detailed in the following table and illustrated in the plans at APPENDIX D.

Level	GFA
Basement (level 1)	0sqm
Ground Floor (level 2)	0sqm
First Floor (level 3)	944sqm
Second Floor (level 4)	895sqm
Third Floor (level 5)	895sqm
Fourth Floor (level 6)	895sqm
Fifth Floor (level 7)	895sqm
Sixth Floor (level 8)	895sqm
Seventh Floor (level 9)	895sqm
Roof	148sqm
Total	6,462sqm

The maximum height of Broughton House is RL57.36 corresponding to the existing ground level.

The GFA and height outlined in this section will be reflected in the proposed covenant to be registered on the title by way of a condition of consent.

6 ASSESSMENT

6.1 Statutory Policy and Compliance

This report and assessment have been structured in accordance with Section 4.15(1)(a) of the *Environmental Planning & Assessment Act 1979* (EP&A Act).

This HFS application has assessed Broughton House, 177-181 Clarence Street, Sydney against the relevant provisions of the SLEP 2012, and is consistent with the requirements and provisions relating to the award of HFS. No draft environmental planning instrument have been identified in relation to the site.

Broughton House has been assessed against the relevant provisions of the SDCP 2012 and is consistent with the requirements and provisions relating to the award of HFS.

No planning agreements relevant to Broughton House have been identified.

6.2 Likely Impacts of the Development

This application is limited to the award of HFS. There is no proposed works to Broughton House which will result in heritage or environmental impacts, nor social or economic impacts to the locality of the Sydney CBD.

6.3 Suitability of the Site for Heritage Floor Space

As outlined in Section 4 of this report, Broughton House at 177-181 Clarence Street, Sydney, satisfies the requirements relating to the award of HFS under the SLEP 2012 and SDCP 2012, and is therefore considered eligible for the award of HFS.

6.4 The Public Interest

The award of HFS to Broughton House at 177-181 Clarence Street, Sydney, will provide for the ongoing conservation of the building, as a significant local heritage listed property of high significance, which makes a significant contribution to Clarence, King and Kent Streets.

The award of HFS will contribute to the provision of 'HFS for allocation' to new development in Central Sydney, in accordance with Council's policy.

7 CONCLUSION

This report supports an application which seeks the award of HFS and the endorsement of the CMP by the City of Sydney in relation to the site, Broughton House at 177-181 Clarence Street, Sydney.

The application for HFS has been assessed against the requirements of the SLEP 2012 and SDCP 2012.

The assessment contained in this report has concluded that the application for HFS at Broughton House is:

- Eligible for an award of HFS;
- Satisfies the relevant requirements and provisions of the City of Sydney's planning instruments relating to the award of HFS;
- Suitable for the site, and is consistent with Council's HFS policies, and that no significant impacts have been assessed which could arise out of this application; and
- In the public interest, providing funds for the continued conservation and maintenance of a building of local heritage significance, which makes a significant contribution to the streetscape.

Approval of this application for the award of HFS to Broughton House at 177-181 Clarence Street, Sydney will help to contribute to the supply of HFS needed by new developments in Central Sydney. It will also provide additional funding for the owners of the building to continue their conservation and ongoing maintenance of the building.

It is therefore the recommendation of this report that Council approve the application for the award for HFS to the amount of **4,996sqm** to Broughton House, 177-181 Clarence Street, Sydney.

APPENDIX A BROUGHTON HOUSE CONSERVATION MANAGEMENT PLAN

The appended Conservation Management Plan was written by Tanner Kibble Denton Architects, April 2021 and is submitted as part of the application for HFS to be endorsed by the City of Sydney as part of the conservation works undertaken at the property.

[REFER SEPARATE FILE](#)

APPENDIX B SURVEY PLAN AND CERTIFICATE OF TITLE

COUNCIL'S CERTIFICATE

The Council of the City of Sydney, having satisfied itself that the requirements of the Strata Titles Act, 1972 (other than the requirements for the registration of plans) have been complied with, approves the proposed strata plan.

Illustrated herein, the Council does not object to the encroachment of the building beyond the alignment of
Clarence Street, King Street & Kent Street

This approval is given on the condition that lot 1 is subject to the restriction on user referred to in section 39 of the Strata Titles Act, 1972.

Date: **23rd February, 1981**
 Subdivision No. **8/1981**

Deputy Town Clerk
[Signature]

SURVEYOR'S CERTIFICATE

1. STANLEY ARTHUR HUTCHINGS of 16 WILSON ROAD PENNANT HILLS 2120 a surveyor registered under the Surveyors Act, 1929, hereby certifies that—

(1) any wall, the inner surface of which corresponds substantially with any line shown on the accompanying floor plan as a boundary of a proposed lot, exists;

(2) any floor or ceiling, the upper or under surface of any part of which forms a boundary of a proposed lot, shown in the accompanying floor plan, exists;

(3) any wall, floor, ceiling or structural cubic space, by reference to which any boundary of a proposed lot shown in the accompanying floor plan is defined, exists;

(4) any building containing proposed lots erected on the land shown on the accompanying location plan and each proposed lot shown on the accompanying floor plan are wholly within the perimeter of the parcel subject to paragraphs (a) and (b) —

(a) except to the extent that the building encroaches on a public place;

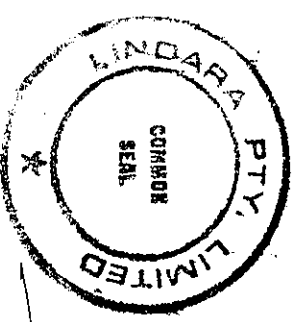
(b) ~~to the extent that the building encroaches on a public place.~~

(5) the survey information recorded in the accompanying location plan is accurate.

Signature: *[Signature]*
 Date: **14th DECEMBER 1980**

* Delete if inapplicable
 † State whether dealing or plan, and quote registered number.
 This is sheet 1 of my Plan in 12 sheets.

Signatures, seals and statements of intention to create easements or restrictions as to user.



[Signature]
 J. C. CARNEY AS WITNESS
 CAVEATOR UNDER
 CAVEAT S 339 654

[Signature]
 Director

[Signature]
 R. FESTAS
 CAVEATOR UNDER
 CAVEAT S 342 211

SECRETARY

CUSTOM CREDIT CORPORATION LIMITED
 by its Attorney GEOFFREY WILLIAM DAVEY
 pursuant to Power of Attorney Registered
 No. 815 Book 3417 who states that he has
 no notice of the revocation of the said Power
 of Attorney.

[Signature]
 Head Office
 Head Office

[Signature]
 THOMAS C. REID
 Surveyor, Sydney.

IN THE PRESENCE OF
 AS MORTGAGEE UNDER MORTGAGE R 409 514 AND
 CAVEATOR UNDER CAVEATS S 169 901 AND S 175 013

PLAN OF STRATA SUBDIVISION OF LOT 1 ON D.P. 522846

City: SYDNEY
 Locality: SYDNEY

Parish: ST. ANDREW
 County: CUMBERLAND

Reduction Ratio 1:400
 Lengths are in metres

Name of, and * address for service of notices on, the body corporate
 * Address required on original strata plan only.
 THE PROPRIETORS STRATA PLAN NO. 16651
 BROUGHTON HOUSE
 181 CLARENCE STREET
 SYDNEY 2000

STRATA PLAN 16651

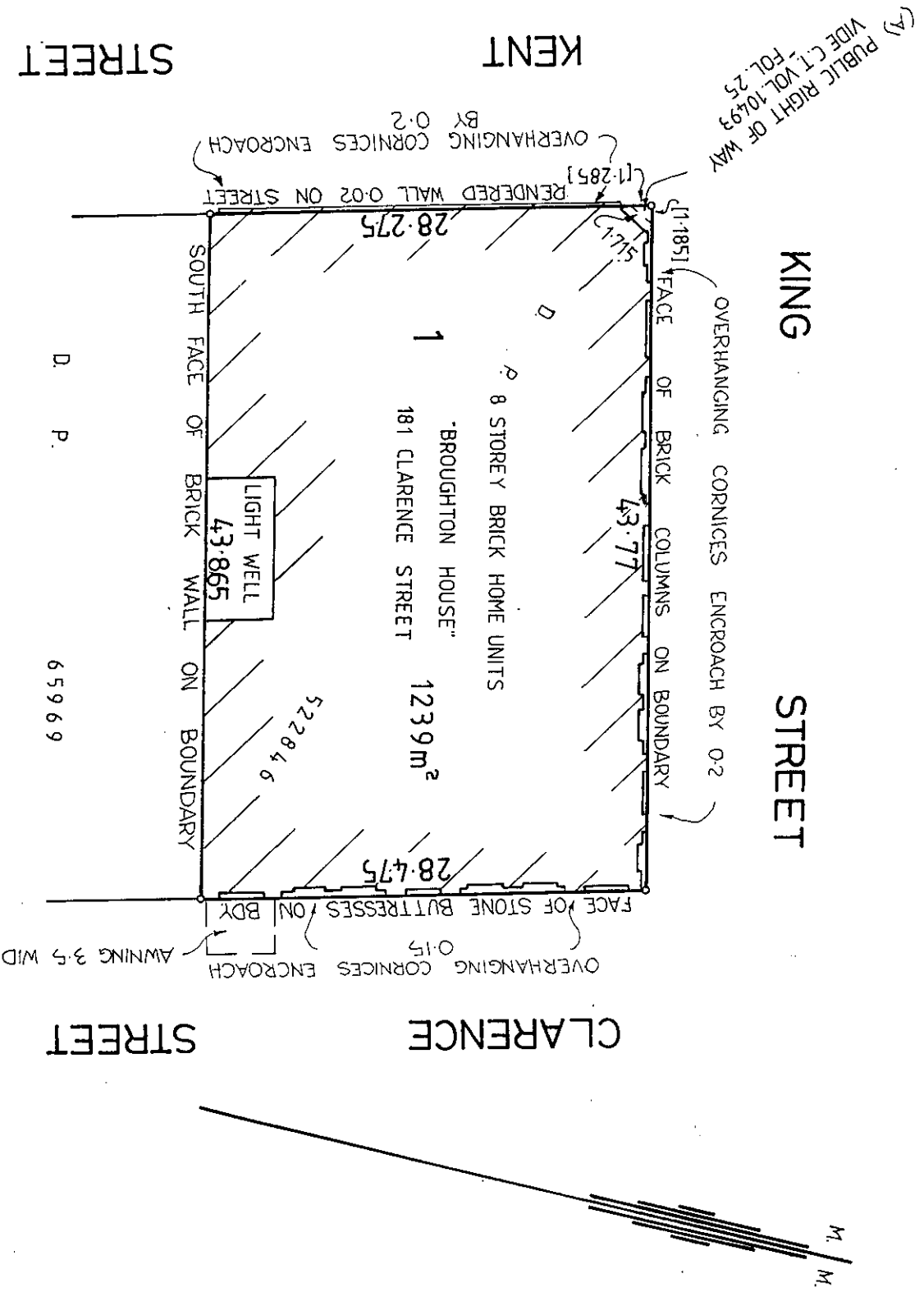
Registered: 18.3.1981

C.A. No 8/1981 OF 23-2-1981

Purpose: STRATA PLAN

Ref. Map: CITY SECTION 28

Last Plan: DP 522846



10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160
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SURVEYOR'S REFERENCE: 1146.79

Plan Drawing only to appear in this space

Plan Drawing only to appear in this space

Y 2 1 2 W 6 2 0 N

STRATA PLAN 16651

OFFICE USE ONLY

Schedule of Unit Entitlement	OFFICE USE ONLY	
	Current C's of T.	VOL. FOL.
1	133	
2	222	
3	155	
4	155	
5	185	
6	104	
7	170	
8	141	
9	229	
10	163	
11	163	
12	192	
13	107	
14	178	
15	107	
16	108	
17	143	
18	237	
19	170	
20	170	
21	195	
22	109	
23	183	
24	89	
25	89	
26	148	
27	243	
28	176	
29	176	
30	200	
31	114	
32	188	
33	99	

Schedule of Unit Entitlement	OFFICE USE ONLY	
	Current C's of T.	VOL. FOL.
34	99	
35	155	
36	247	
37	180	
38	180	
39	210	
40	118	
41	192	
42	104	
43	104	
44	163	
45	251	
46	185	
47	185	
48	222	
49	123	
50	203	
51	107	
52	107	
53	170	
54	259	
55	192	
56	192	
57	237	
58	126	
59	217	
60	110	
61	114	
62	7	
AGGREGATE	10 000	

Reduction Ratio 1:

Lengths are in metres



D. A. H. L. G.
Registered Surveyor

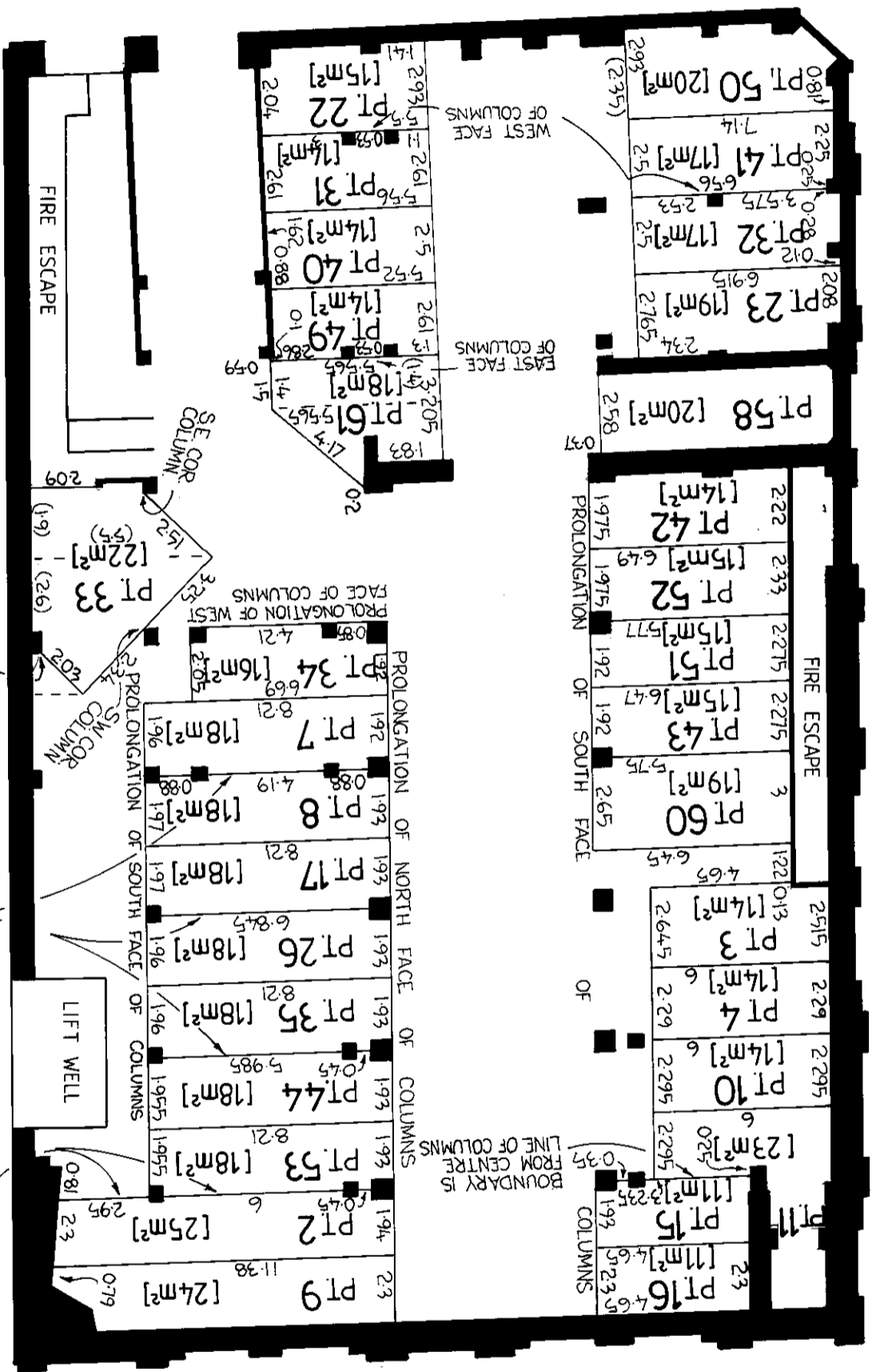
[Signature]
Deputy Town & Country Clerk

SURVEYOR'S REFERENCE: 1146.79

2 5 10021 5/15

STRATA PLAN 16651

BASEMENT - KENT STREET LEVEL
CAR SPACES



NOTE - DIMENSIONS ARE TAKEN FROM FACES OF WALLS OR COLUMNS
ALL CAR SPACES ARE ROOFED

BOUNDARY IS FROM CENTRE LINE OF COLUMNS
BOUNDARY IS FROM CENTRE LINE OF COLUMNS
BOUNDARY IS FROM CENTRE LINE OF COLUMNS

Reduction Ratio 1:200

Lengths are in metres

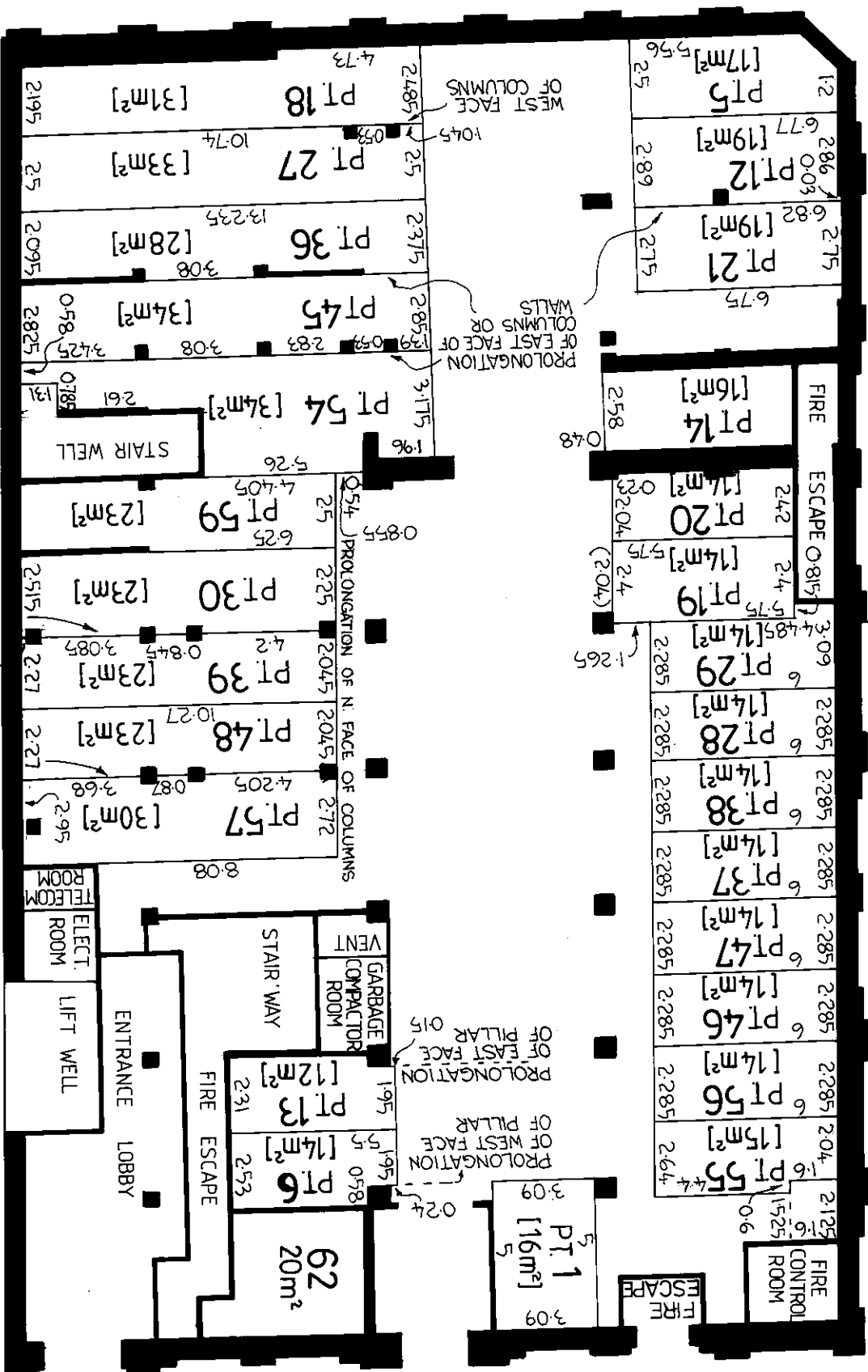
A.A. Muel
Registered Surveyor
W.P.O.
Deputy Town Council Clerk

SURVEYOR'S REFERENCE: 1146.79



GROUND FLOOR CLARENCE STREET LEVEL CAR SPACES

STRATA PLAN 16651



NOTE - DIMENSIONS ARE FROM FACES OF WALLS OR COLUMNS
ALL CAR SPACES ARE ROOFED

BOUNDARY IS FROM CENTRE LINE OF COLUMNS
0.12

BOUNDARY IS FROM CENTRE LINE OF COLUMNS
0.12

Reduction Ratio 1: 200

Lengths are in metres

A.A. Mudge
Registered Surveyor

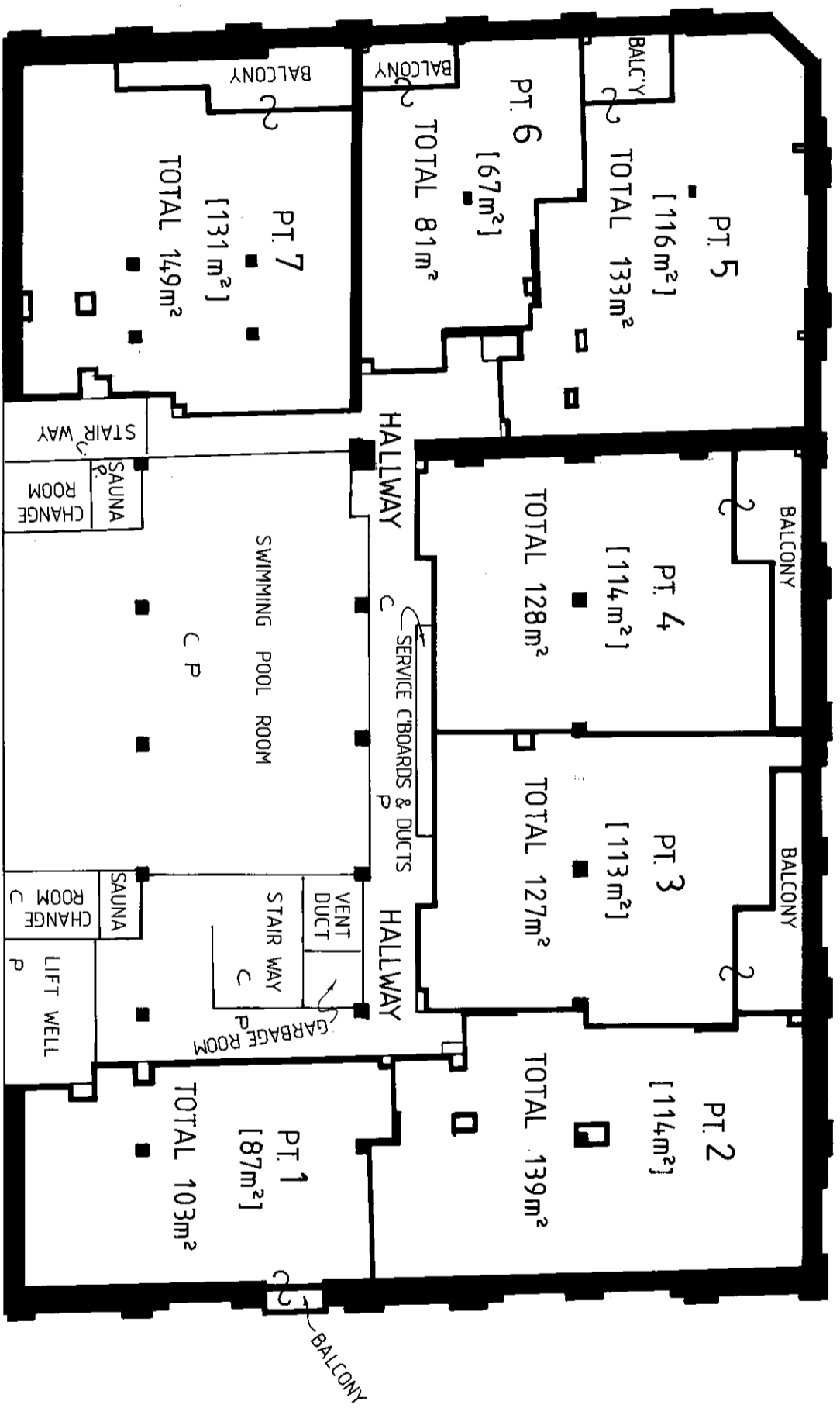
[Signature]
Deputy Town Planning Clerk

SURVEYOR'S REFERENCE: 1146.79



STRATA PLAN 16651

FIRST FLOOR



NOTES -

- DENOTES SERVICE DUCT (C.P)
- ALL BALCONIES ARE ROOFED
- C.P COMMON PROPERTY
- COLUMN (C.P.)
- SERVICE DUCT (C.P)

Reduction Ratio 1: 200

Lengths are in metres



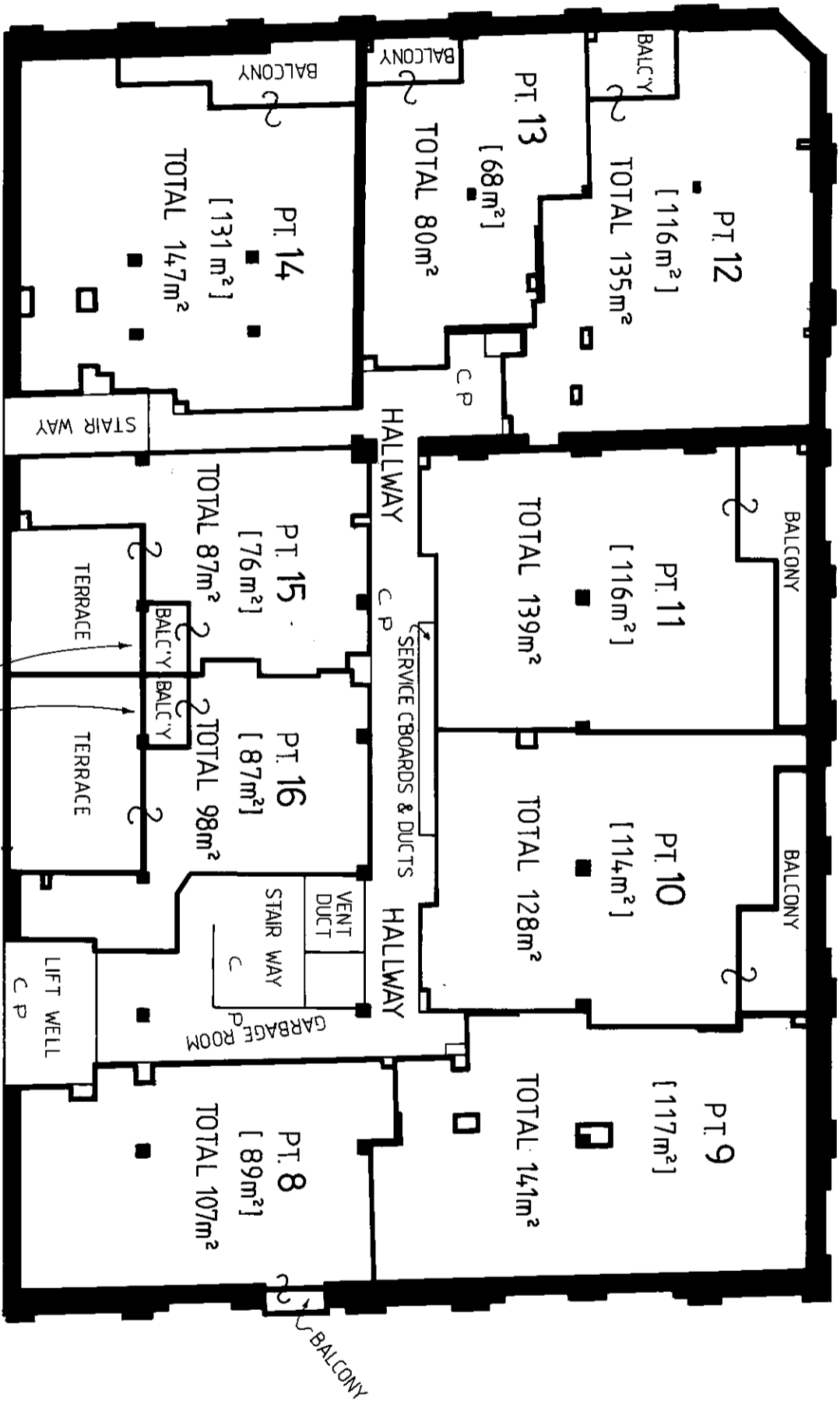
A. A. Melling
Registered Surveyor

[Signature]
Deputy Town Council Clerk

SURVEYOR'S REFERENCE: 1146.79

STRATA PLAN 16651

SECOND FLOOR



NOTES -

- DENOTES SERVICE DUCT (CP)
- THE STRATA OF THE UNROOFED TERRACES OF PART LOTS 15 AND 16 EXTEND BETWEEN THE UPPER SURFACE OF THE FLOOR OF EACH RESPECTIVE TERRACE AND THE LEVEL OF THE UNDERSIDE OF THE CEILING OF EACH RESPECTIVE ADJOINING PART LOT.

BALCONIES EXTEND TO LINE OF SOUTHERN FACE OF THE WALL ABOVE.

- BALCONIES ARE ROOFED
- CP COMMON PROPERTY
- COLUMN (CP)

Reduction Ratio 1: 200

Lengths are in metres

A. A. Hurling

Registered Surveyor

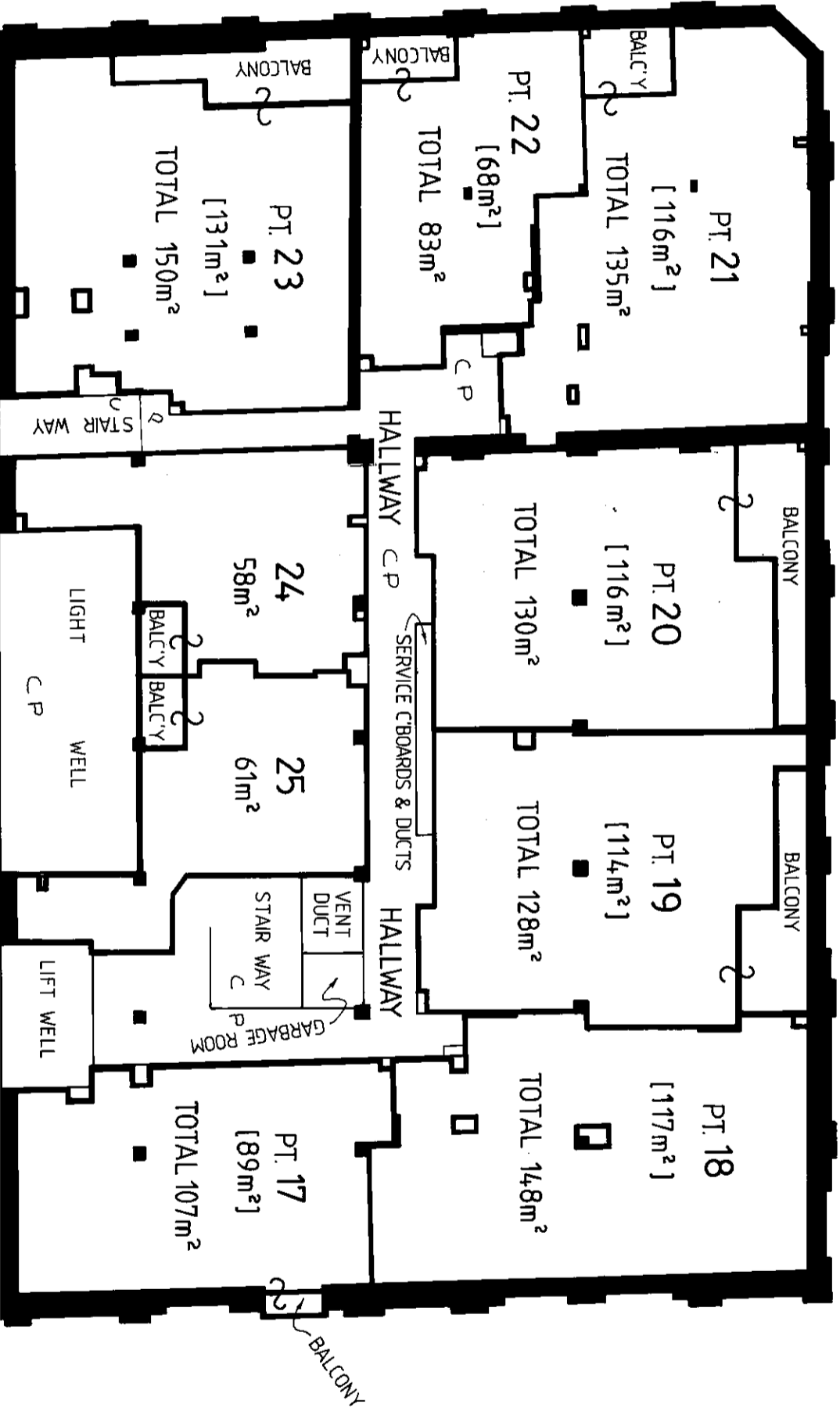
Deputy Town Clerk

SURVEYOR'S REFERENCE: 114, 6, 79



STRATA PLAN 16651

THIRD FLOOR



- NOTES
- DENOTES SERVICE DUCT (CP)
 - BALCONIES ARE ROOFED
 - CP COMMON PROPERTY
 - COLUMN (CP)

Reduction Ratio 1: 200

Lengths are in metres

A.A. Muller
Registered Surveyor

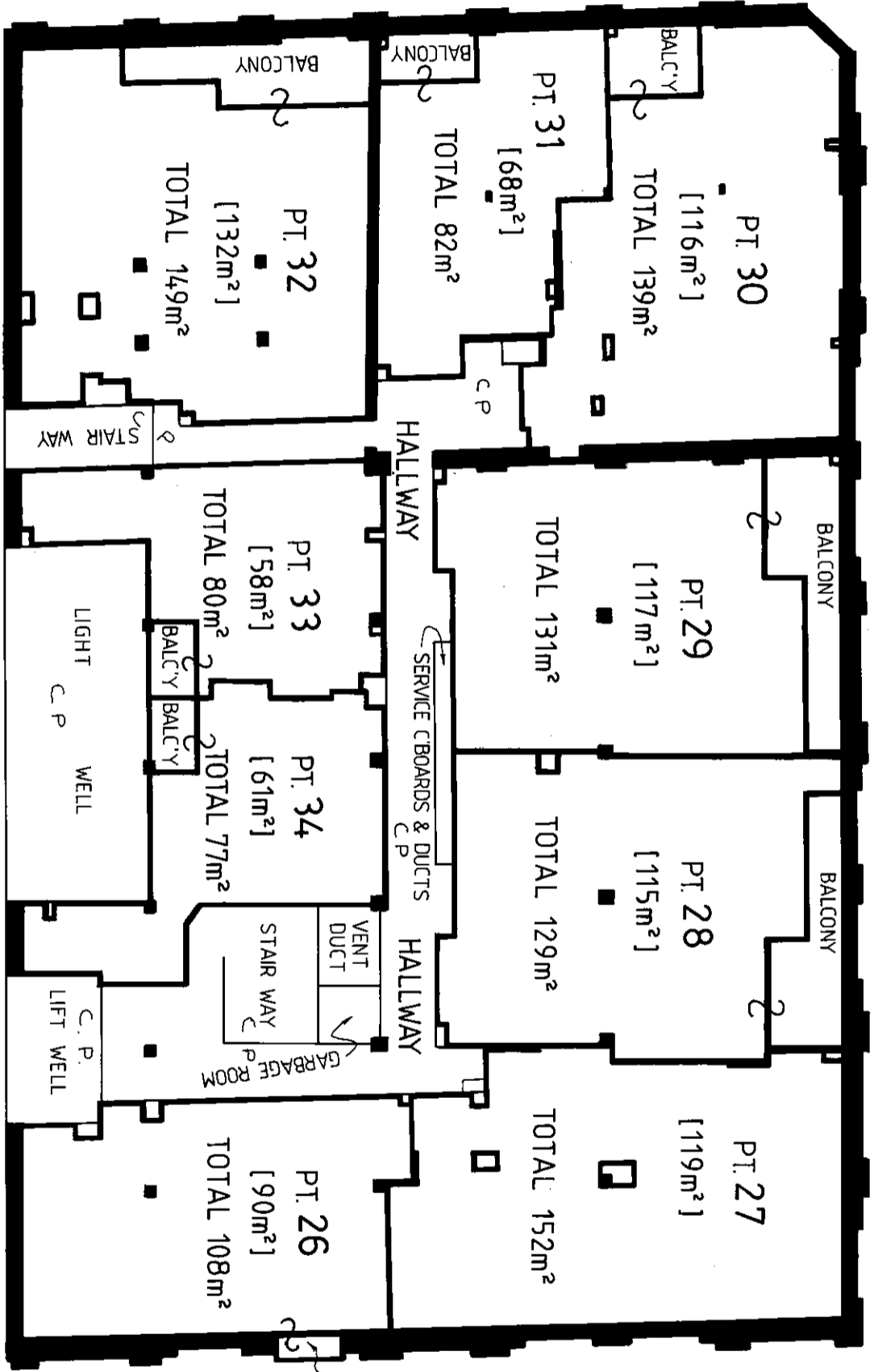
[Signature]
Deputy Town Clerk

SURVEYOR'S REFERENCE: 1146.79



STRATA PLAN 16651

FOURTH FLOOR



- NOTES—
- DENOTES SERVICE DUCT (C.P)
 - BALCONIES ARE ROOFED
 - C.P COMMON PROPERTY
 - COLUMN (C.P)

Reduction Ratio 1:200

Lengths are in metres

A.A. Kullip
 Registered Surveyor

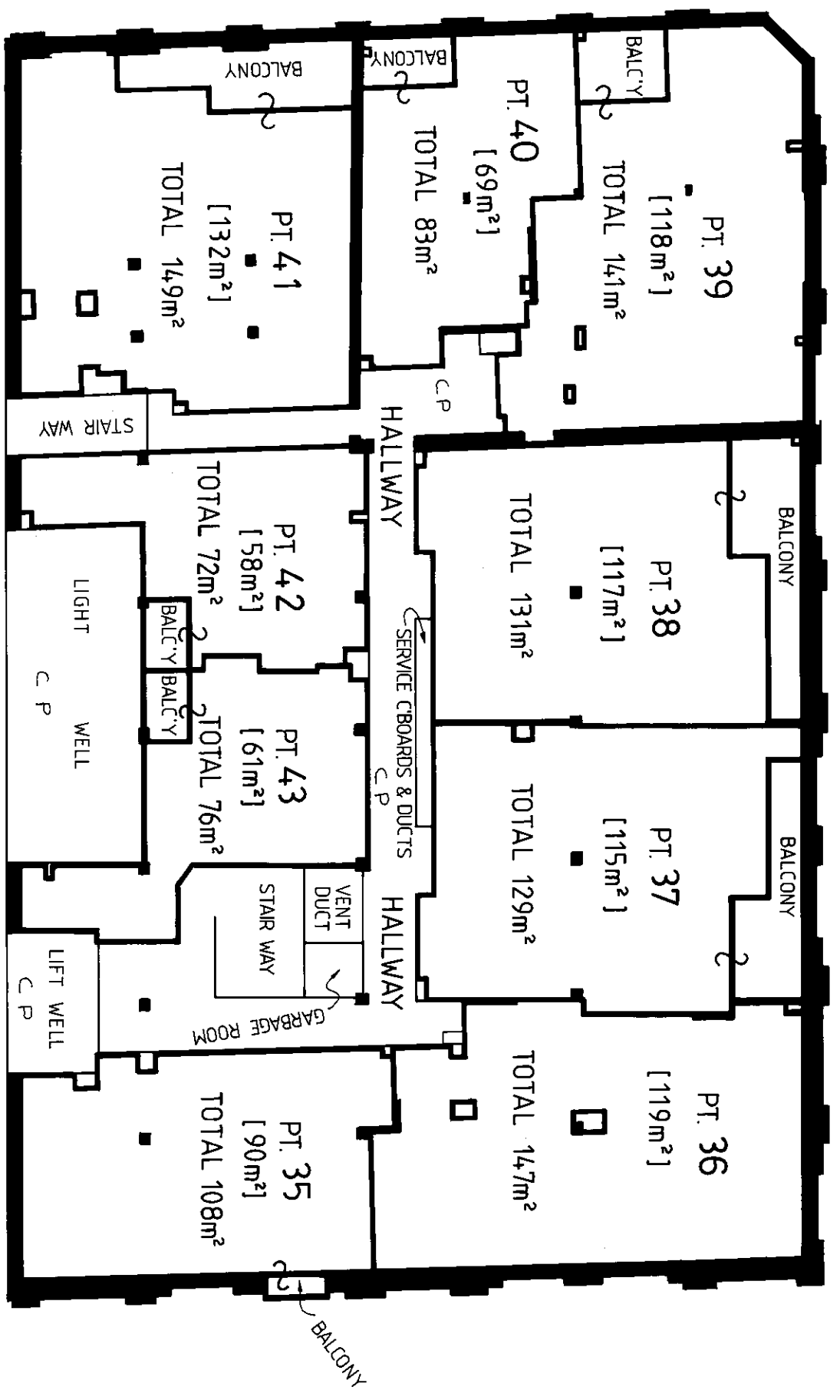
[Signature]
 Deputy Town Council Clerk

SURVEYOR'S REFERENCE: 1146.79



STRATA PLAN 16651

FIFTH FLOOR



- NOTES -
- DENOTES SERVICE DUCT (CP)
 - ▤ BALCONIES ARE ROOFED
 - CP COMMON PROPERTY
 - COLUMN (CP)

Reduction Ratio 1:200

Lengths are in metres

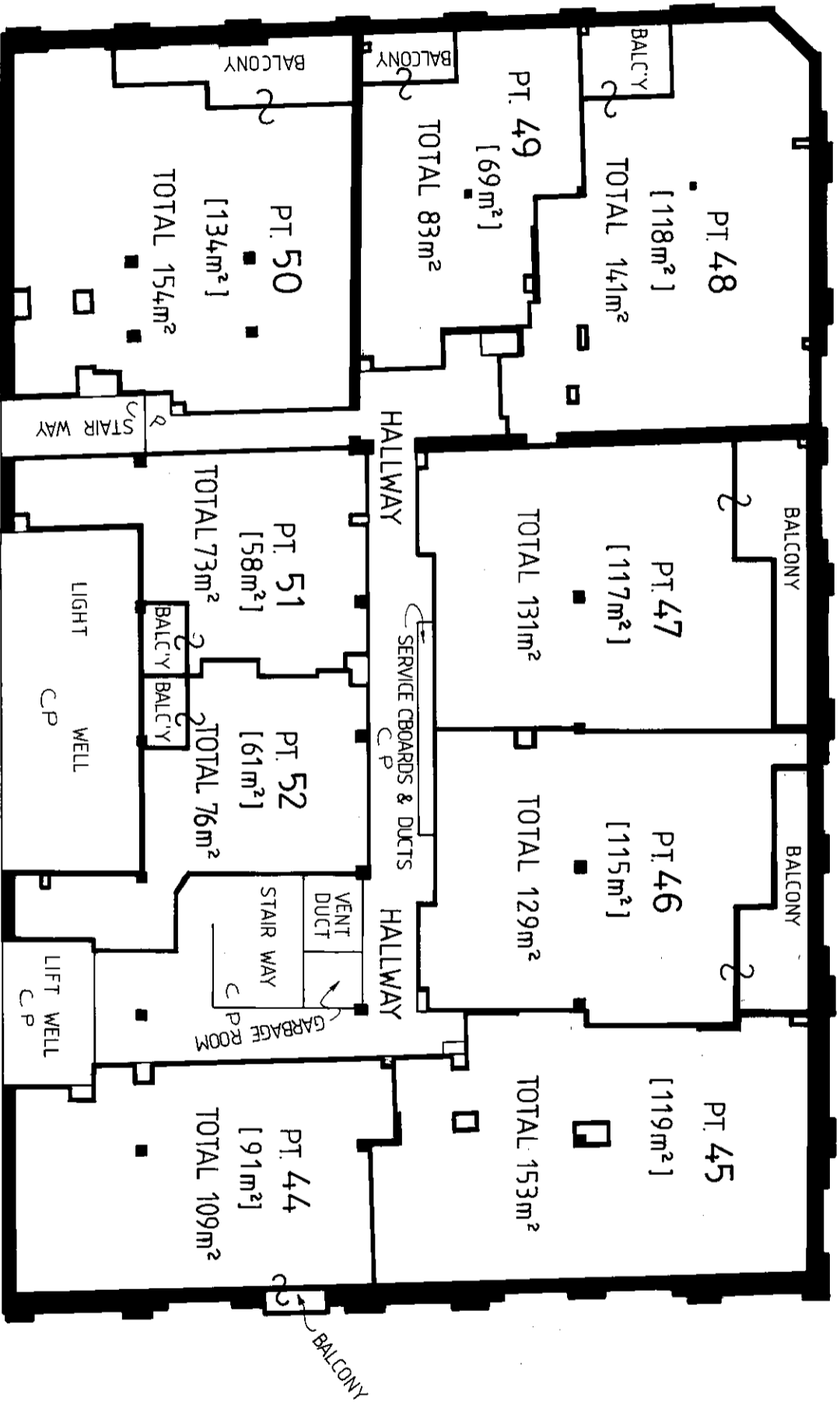
A.A. Skelving
Registered Surveyor

Deputy Town Clerk



STRATA PLAN 16651

SIXTH FLOOR



- NOTES -
- DENOTES SERVICE DUCT (CP)
 - BALCONIES ARE ROOFED
 - CP COMMON PROPERTY
 - COLUMN (CP)

Reduction Ratio 1: 200

Lengths are in metres

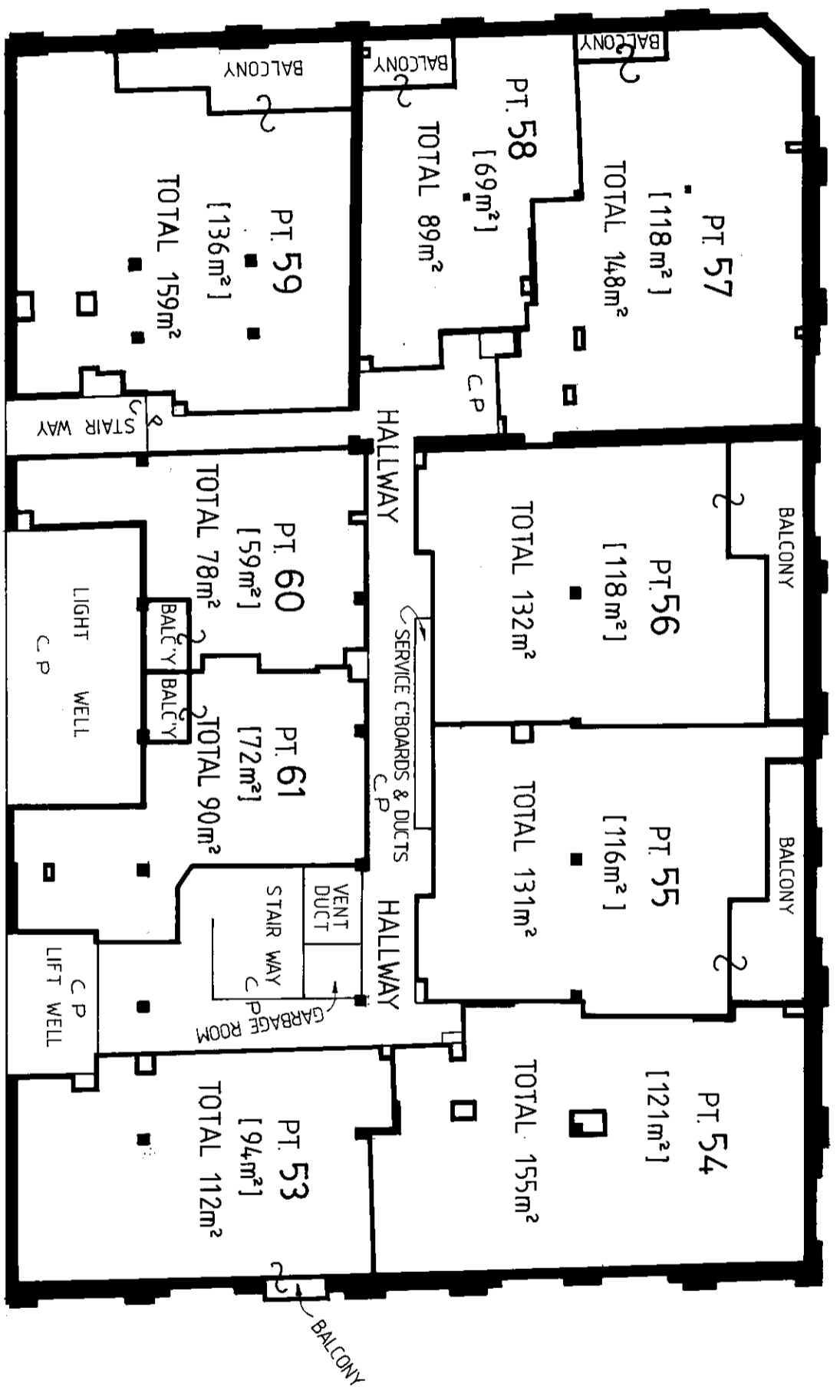
A. A. Melling
Registered Surveyor

[Signature]
Deputy Town Council Clerk



STRATA PLAN 16651

SEVENTH FLOOR



NOTES -

- DENOTES SERVICE DUCT (CP)
- THE STRATA OF THE UNROOFED SECTION OF THE BALCONY OF PART LOT 53 IS RESTRICTED IN HEIGHT BETWEEN THE UPPER SURFACE OF THE FLOOR OF THE BALCONY AND THE LEVEL OF THE UNDERSIDE OF THE CEILING OF THE ADJOINING PART LOT 53.
- ALL OTHER BALCONIES ARE ROOFED
- CP COMMON PROPERTY
- COLUMN (CP)

Reduction Ratio 1: 200

Lengths are in metres

A.A. Muthy
Registered Surveyor

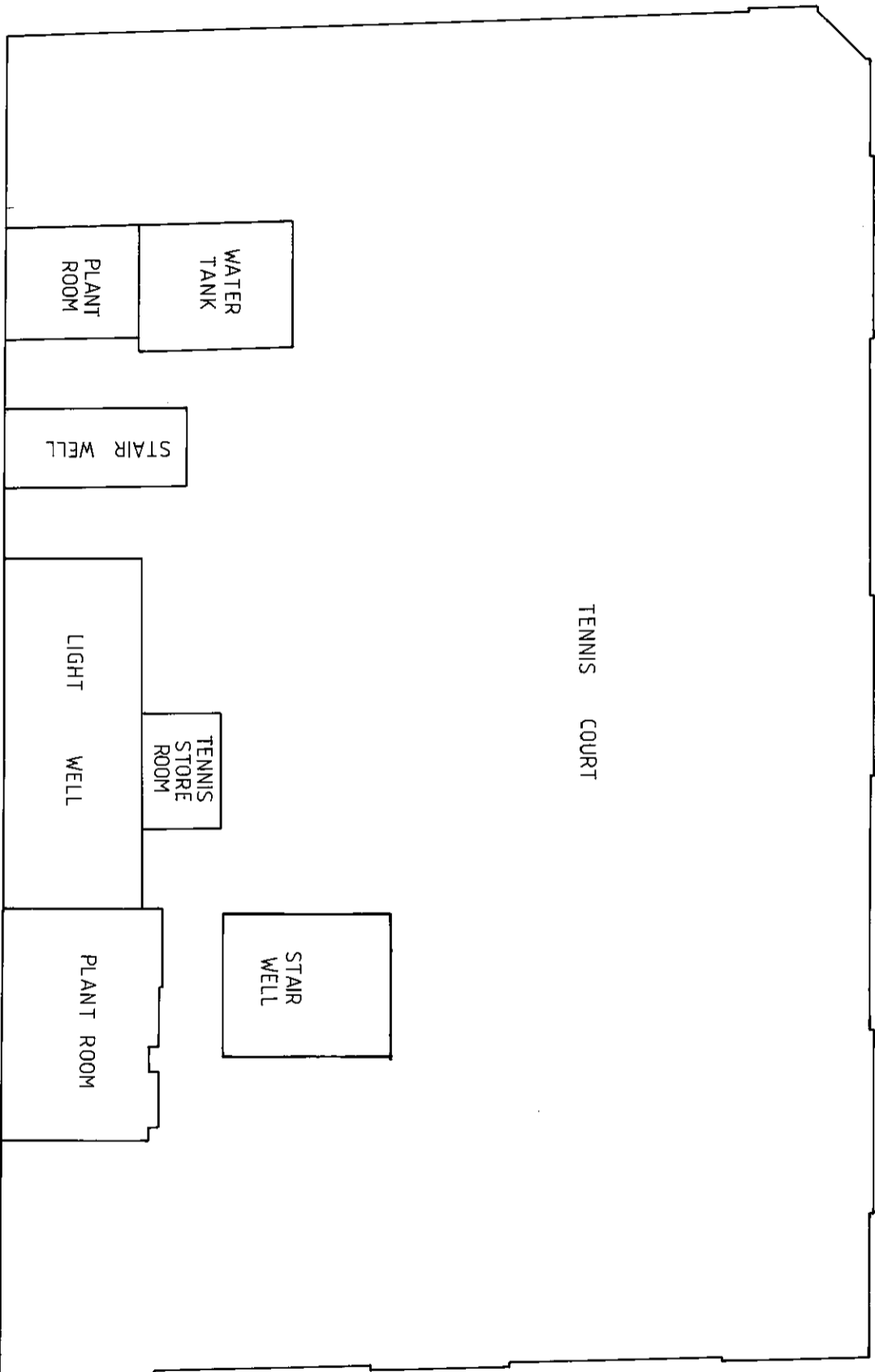
[Signature]
Deputy Town Council Clerk

SURVEYOR'S REFERENCE: 1146.79



EIGHTH FLOOR - ROOF

STRATA PLAN 16651



Reduction Ratio 1: 200

Lengths are in metres



J.A. Mulla
Registered Surveyor

[Signature]
Deputy Town Clerk

SURVEYOR'S REFERENCE: 1146.79

WJ 031



10493025

G. 2

NEW SOUTH WALES

CERTIFICATE OF TITLE
PROPERTY ACT, 1900, as amended.

Vol. 10493 Fol. 25

EI Edition issued 9-2-1967
K484265

Applications Nos. 3684,5228,5387

Prior Title Vol. 8392 Fol. 32



25 Fol.

10493

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness *S. Vandine*

CANCELLED

Jawatson
Registrar General.



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 522846 in the City of Sydney Parish of St. Andrew and County of Cumberland being the land set out in the Schedule of Grants hereunder.

SCHEDULE OF GRANTS.

Lot and Deposited Plan	Allotment and Section		Area			Name of Grantee	Date of Grant
			Acres	Roods	Perches		
Lot 1 D.P.522846	Pt.1	28	1	9	Parry Long	26 - 8 - 1840	
	Pt.2	28			Parry Long	9 - 9 - 1840	
	Pt.4	28			William Pawley	13 - 1 - 1841	
	Pt.3	28			Joel Josephs	22 - 1 - 1841	

FIRST SCHEDULE (continued overleaf)

~~J. FIELDING AND COMPANY LIMITED.~~

SECOND SCHEDULE (continued overleaf)

- Reservations and conditions, if any, contained in the Crown Grants above referred to.
- Subject so far as the land designated (A) in plan hereon is concerned to a public right of way such right of way is restricted to the exercise thereof by pedestrians only and does not extend to prevent the registered proprietor building over the portion designated (A) at a height of not less than 12 feet from the footway.
- ~~Lease No. J96862 of Room 14 on the 6th floor of premises known as Broughton House, 181 Clarence Street, Sydney (together with and reserving certain rights) to Patrick Joseph Tiernan, of St. Ives, John James Tiernan, of Avalon and Percy Arthur Grimham, of Newport, all Quantity Surveyors. Entered 26-9-1962. Expired N605280~~
- ~~Lease No. J96863 of part 7th floor of premises known as Broughton House 181 Clarence Street, Sydney (together with and reserving certain rights) to Grant Barnett & Company (Aust.) Pty. Limited. Entered 26-9-1962. Expired R184347 R184347~~
- ~~Lease No. J107690 of part of the 2nd floor of premises known as Broughton House 181 Clarence Street, Sydney (together with and reserving certain rights) to Grant Barnett & Company (Aust.) Pty. Limited. Entered 26-9-1962. Expired R184347 R184347~~
- ~~Lease No. J288587 of part of the 7th floor of premises known as Broughton House 181 Clarence Street, Sydney (together with and reserving rights) to William James Sackville Harding and Jack Graeme Breathour, both of Sydney Accountants. Entered 4-4-1963. Expired N605280~~
- ~~Lease No. J822960 of Room 11 on the 7th floor of premises known as Broughton House 181 Clarence Street, Sydney (together with rights) to Cameo Floor Coverings Pty. Limited. Entered 19-11-1964. Expired N605280~~
- ~~Lease No. J860368 of Room 1 on the 7th floor of the King Street Section of premises known as Broughton House (together with rights) to Russell Cowan Proprietary Limited. Entered 27-1-1965. Expired N605280~~
- ~~Lease No. J963502 of the fifth floor of premises known as Broughton House 181 Clarence Street, Sydney to Ross Brown Pty. Limited. Entered 4-5-1965. Expired R184347 R184347~~
- ~~Lease No. K216175 of Rooms 9 and 10 on the 7th floor of premises known as Broughton House 181 Clarence Street, Sydney to Alfred English Potteries Pty. Limited. Entered 17-1-1966. Expired R184347~~
- ~~Lease No. K401685 of Room 3 on 2nd floor of premises known as Broughton House 181 Clarence Street, Sydney (together with rights) to Mitsubishi (Aust.) Pty. Limited. Entered 5-8-1966. Expired N605280~~
- ~~Lease No. K477158 of Suite 1 on the 2nd floor of premises known as 177 181 Clarence Street, Sydney to Friden Pty. Limited. Entered 26-10-1966. Expired N605280~~
- ~~Lease No. K477159 of Room 1 on the first floor of premises known as 177 181 Clarence Street, Sydney to Friden Pty. Limited. Entered 26-10-1966. Expired N605280~~

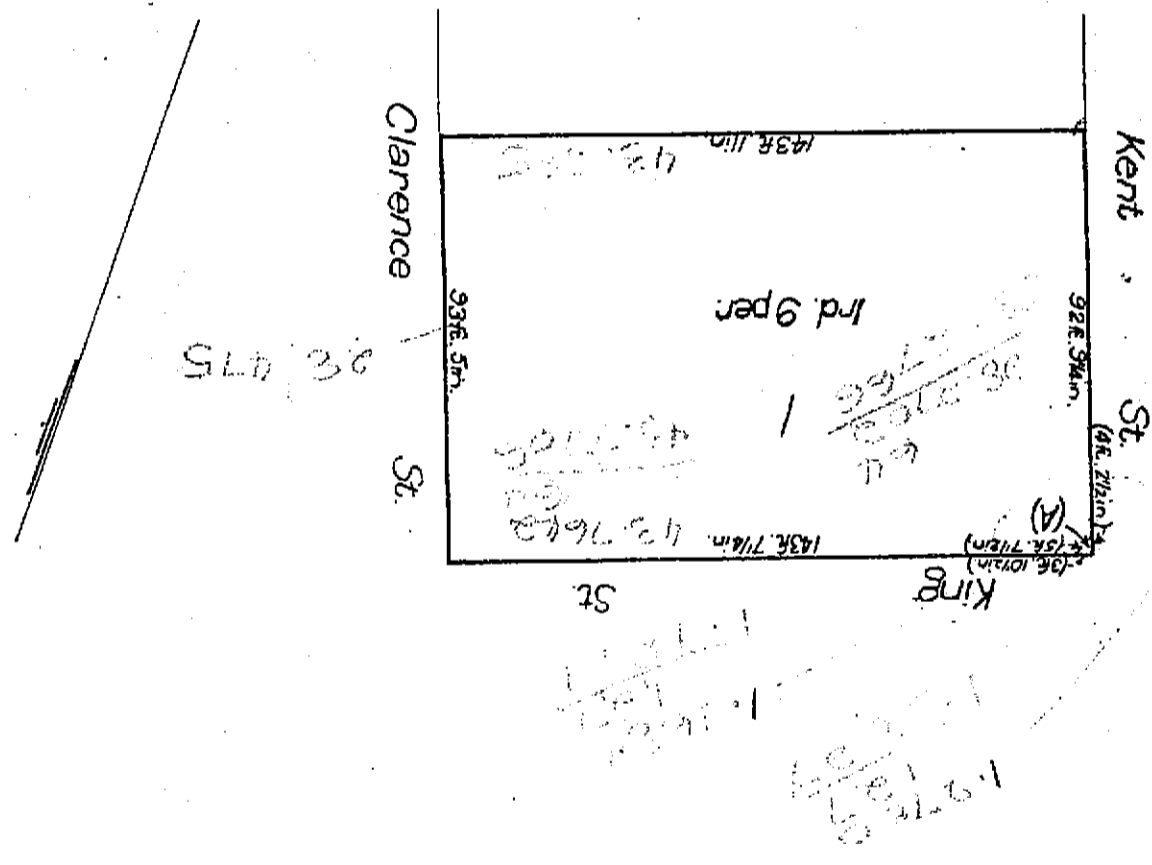
Jawatson
Registrar General.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TILES OFFICE.

K484265.flg
FKT

Scale: 40 feet to one inch



1.9718
1.9719
71.45

Plan Showing Location of Land

54644	Lot 31	54638474 Lot 15	54638474 Lot 4	5458330 W/LP	5444990 W/LP	545783 W/LP	1297 4879
54644	Lot 31	54638474 Lot 15	54638474 Lot 4	5458330 W/LP	5444990 W/LP	545783 W/LP	1297 4879
FIRST SCHEDULE (continued)							
REGISTERED PROPRIETOR		NATURE		INSTRUMENT NUMBER		DATE	
S47284 68 W/LP S47568 3 W/LP S47568 3 W/LP S46185 6 W/LP S459527 W/LP S47284 68 W/LP S47568 3 W/LP S47568 3 W/LP S46185 6 W/LP S459527 W/LP		S475753 W/LP S47568 3 W/LP S47568 3 W/LP S46185 6 W/LP S459527 W/LP		29/1/88 29/1/88 29/1/88 29/1/88 29/1/88 29/1/88 29/1/88 29/1/88 29/1/88 29/1/88 29/1/88		S455498 PDX S455498 PDX S455498 PDX S455498 PDX S455498 PDX S455498 PDX S455498 PDX S455498 PDX S455498 PDX S455498 PDX	

INSTRUMENT NUMBER		DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
Caveat	R728133	28-3-1989	by Robert Nixon-Smith and Robert Brock Halliday.	28-3-1989	[Signature]	5366617
Caveat	R774859	15-9-1989	by Sydney Credit Corporation Limited	15-9-1989	[Signature]	5366618
Caveat	S159424	14-1-1989	by Sydney Credit Corporation Limited	14-1-1989	[Signature]	5366619
Caveat	S169901	5-12-1980	as regards the premises being that 28 and Car Space 28 on the 4th and ground floor respectively of the building known as 'Broughton House' 177-181 Clarence St, Sydney, by John Ernest Henry	5-12-1980	[Signature]	
Caveat	S175013	5-12-1980	as regards the premises being that 29 and Car Space 29 on the 4th and ground floor respectively of the building known as 'Broughton House' 177-181 Clarence St, Sydney, by E. Neil Pty Limited	5-12-1980	[Signature]	
Caveat	S166219	20-1-1981	of the premises being that 28 and Car Space 28 on the 4th and ground floor respectively of the building known as 'Broughton House' 177-181 Clarence St, Sydney, by E. Neil Pty Limited	20-1-1981	[Signature]	5366620
Caveat	S166219	20-1-1981	of the premises being that 29 and Car Space 29 on the 4th and ground floor respectively of the building known as 'Broughton House' 177-181 Clarence St, Sydney, by E. Neil Pty Limited	20-1-1981	[Signature]	5366621
Caveat	S166219	20-1-1981	of the premises being that 28 and Car Space 28 on the 4th and ground floor respectively of the building known as 'Broughton House' 177-181 Clarence St, Sydney, by E. Neil Pty Limited	20-1-1981	[Signature]	5366622

APPENDIX C CERTIFICATE OF CONSERVATION WORKS

22 February 2021



General Manager
City of Sydney Council
Town Hall House
Level 2, 456 Kent Street
Sydney NSW 2000

Subject: Broughton House, 177-181 Clarence Street, Sydney – Conservation Works

We write to confirm that, based on our detailed inspection of the building in February 2021 for the preparation of the updated Conservation Management Plan (CMP) for Broughton House at 177-181 Clarence Street, we confirm that conservation and repair works have been progressively undertaken on the building, the most recent being roof repairs. The building is in good condition except for the street facades, which are in fair condition. We note that the proposed works to repair the façade as per the approved Heritage Works (exemption from development consent) (HWC/2019/294) have a sound methodology and are well documented. These works have been tendered and are scheduled to commence upon receipt of funding from the sale of the Transferrable Heritage Floor Space. The construction value of these works is in the order of \$1.2 M.

A schedule of repair/maintenance works and a Cyclical Maintenance Plan have been developed to guide owners, tenants and maintenance staff on the maintenance required for the building and its significant fabric. These are included in Appendices C of the CMP.

Please contact Megan Jones if you require any additional information or clarification.

Yours sincerely

TANNER KIBBLE DENTON ARCHITECTS PTY LTD

Megan Jones
Principal and Practice Director
NSW Registration No. 4148
QLD Registration No. 4357

Tanner Kibble Denton Architects Pty Ltd | ABN 77 001 209 392 | www.tkda.com.au

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Brisbane Level 14, 241 Adelaide Street, Brisbane QLD 4000 Australia | T+61 7 3087 0160

Principals Alex Kibble, Robert Denton, Megan Jones, John Rose | **Practice Directors** Melanie Mackenzie, George Phillips, Lachlan Rowe

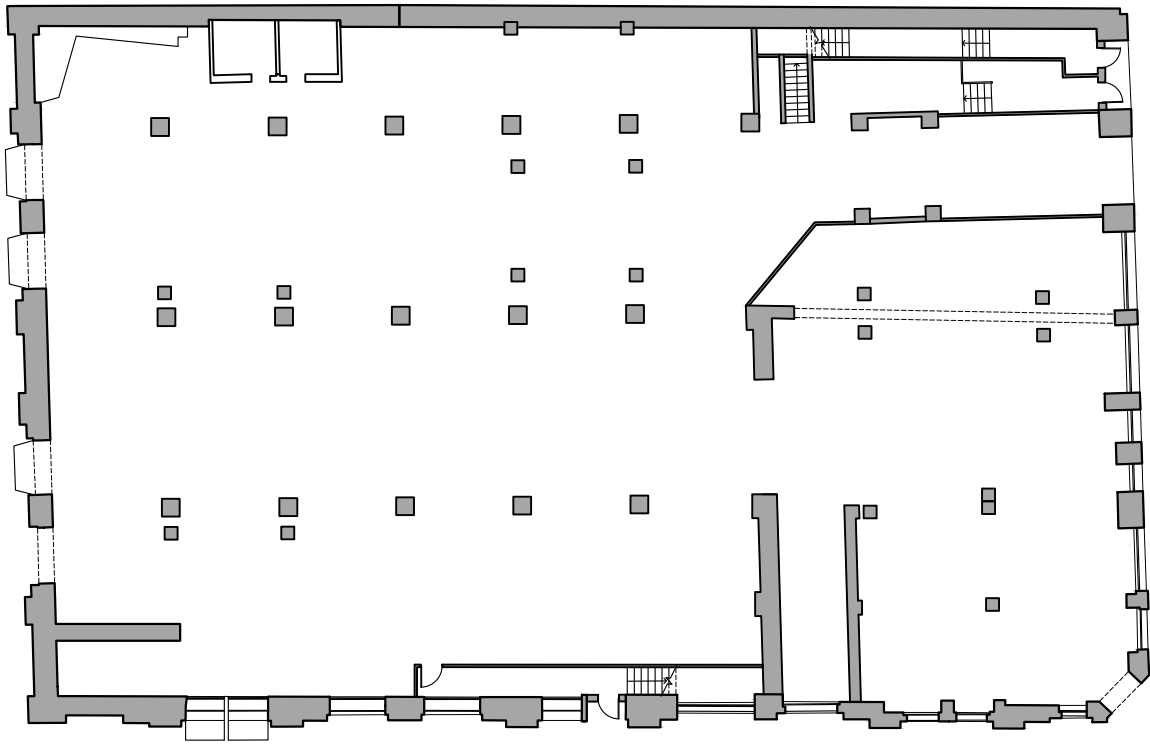
Associate Directors Ian Burgher, Angelo Casado, Asta Chow, Paul Dyson, David Earp, Anna Harris, Sean Williams

Associates Rory Avis-Foster, Heiron Chan, Chloe Rayfield, Robin Sampson, Jordan Swebeck

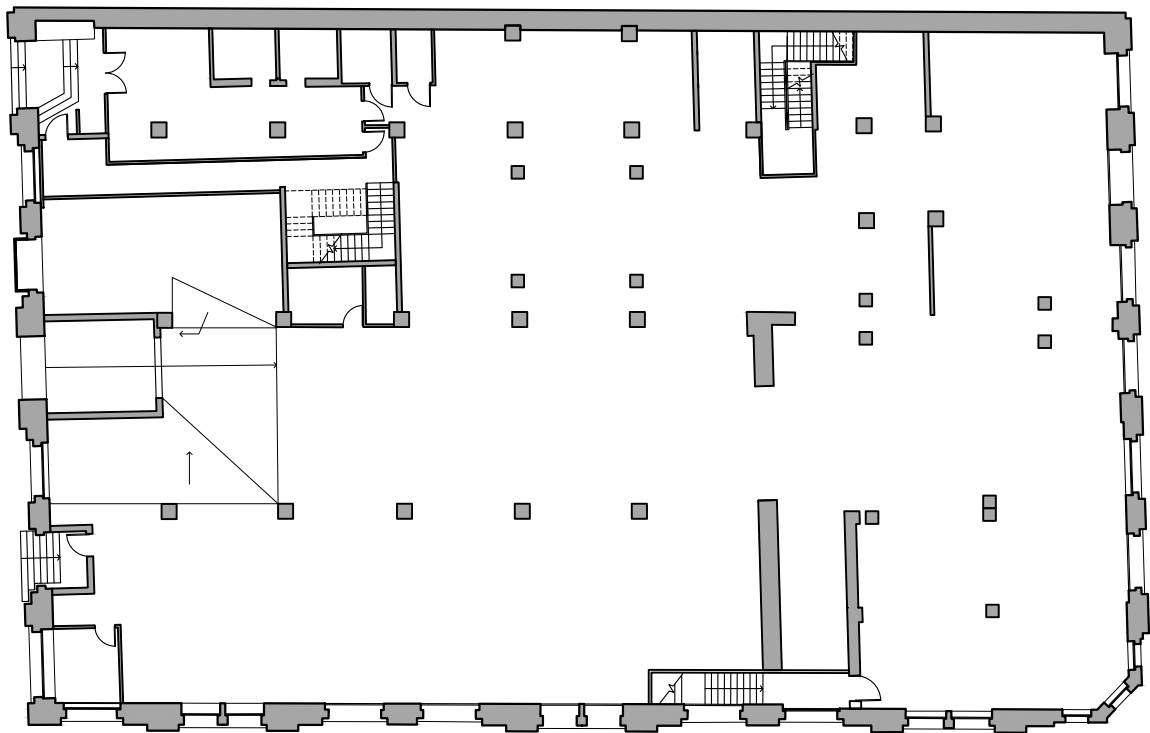
NSW Nominated Architects Robert Denton Registration No 5782 | Alex Kibble Registration No 6015

APPENDIX D GROSS FLOOR AREA PLANS

The following plans were drawn by Tanner Kibble Denton Architects, February 2021.

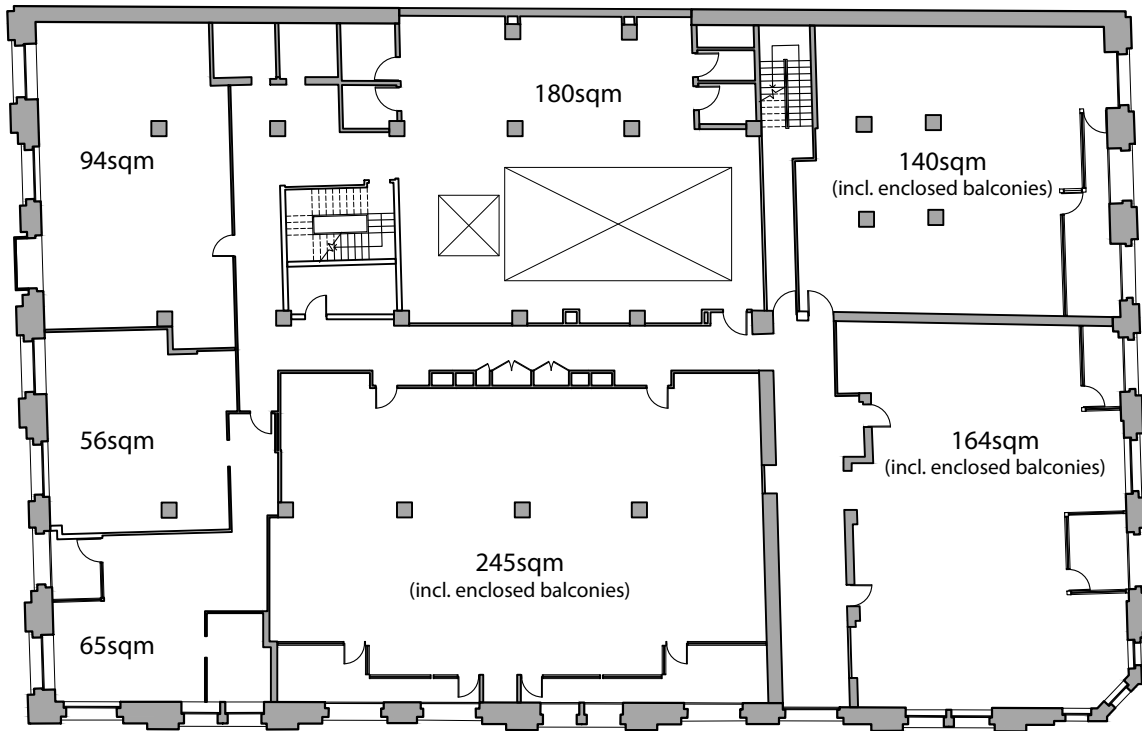


GFA = 0sqm

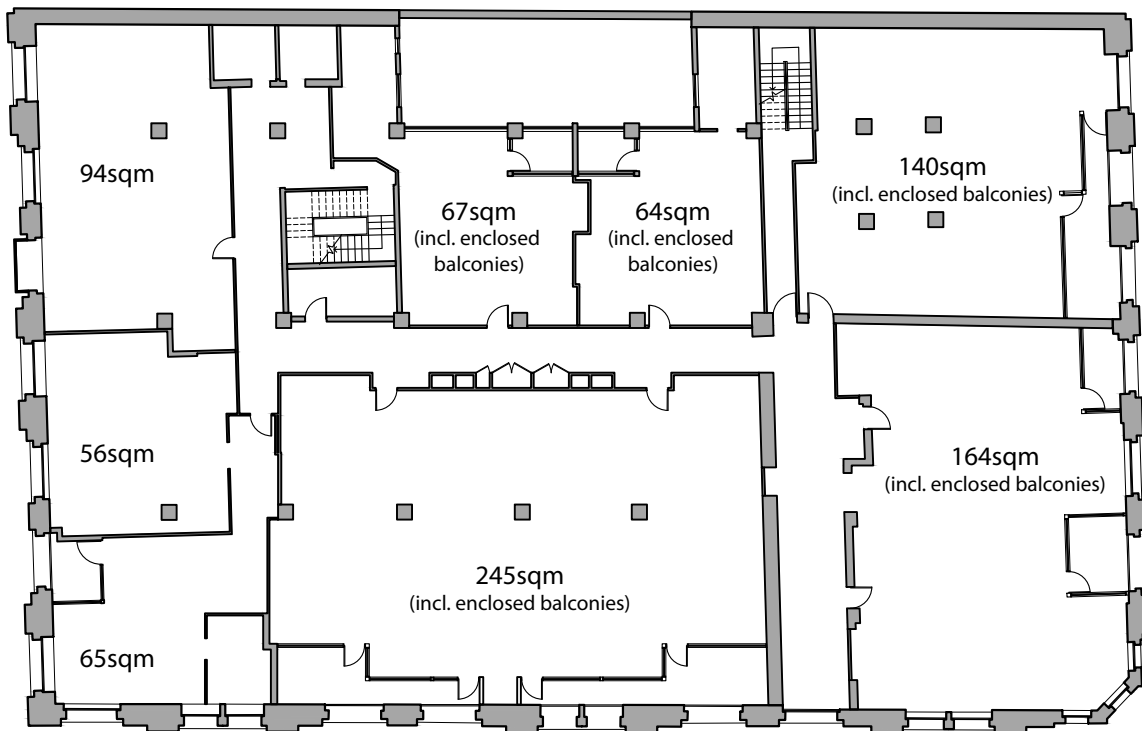


GFA = 0sqm

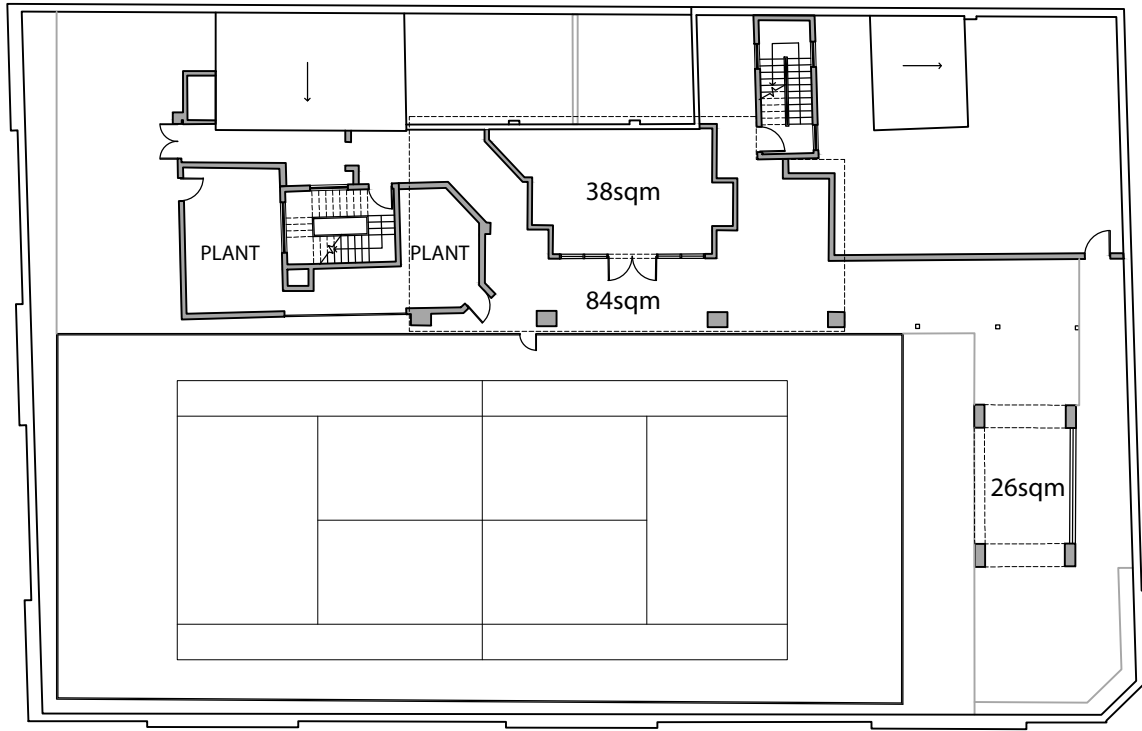
LEVEL ONE + TWO FLOOR PLAN



GFA = 944sqm



GFA = 895sqm



GFA = 148sqm

APPENDIX E CERTIFICATE OF CURRENCY

CERTIFICATE OF CURRENCY

THE INSURED

POLICY NUMBER	NRSC18000889
PDS AND POLICY WORDING	Residential Strata Product Disclosure Statement and Policy Wording SCIA-007_RSC-08/2014
THE INSURED	The Owners - Strata Plan No. 16651
SITUATION	181 Clarence Street Sydney NSW 2000
PERIOD OF INSURANCE	Commencement Date: 4.00pm on 11/03/20 Expiry Date: 4.00pm on 11/03/21
INTERMEDIARY	Body Corporate Brokers
ADDRESS	Level 11, 338 Pitt Street Sydney NSW 2000
DATE OF ISSUE	12 March, 2020

POLICY LIMITS / SUMS INSURED

SECTION 1	PART A	1. Building Common Area Contents	\$53,455,000 \$534,550
	PART B	Loss of Rent/Temporary Accommodation 2. Floating Floors 3. Lot Owners Wall Coverings	\$8,018,250 Included Included
SECTION 2	Liability		\$20,000,000
SECTION 3	Voluntary Workers		\$200,000/\$2,000
SECTION 5	Fidelity Guarantee		\$100,000
SECTION 6	Office Bearers' Liability		\$10,000,000
SECTION 9	PART A - Government Audit Costs - Professional Fees		\$25,000
	PART B - Appeal Expenses		\$100,000
	PART C - Legal Defence Expenses		\$50,000
SECTION 10	Lot Owners' Fixtures and Improvements		\$300,000

This certificate of currency has been issued by Strata Community Insurance Agencies Pty Ltd, ABN 72 165 914 009, AFSL 457787 on behalf of the insurer Allianz Australia Insurance Limited, ABN 15 000 122 850, AFSL 234708 and confirms that on the Date of Issue a policy existed for the Period of Insurance and sums insured shown herein. The Policy may be subsequently altered or cancelled in accordance with its terms after the Date of Issue of this notice without further notice to the holder of this notice. It is issued as a matter of information only and does not confer any rights on the holder or any noted interested parties. This certificate does not amend, extend, replace, negate or override the benefits, terms, conditions and exclusions as described in the Schedule documents together with the Product Disclosure Statement and insurance policy wording.

APPENDIX F BROUGHTON HOUSE SINKING FUND

QS Solutions

Capital works fund specialists

23 Kirkwood Avenue, Epping NSW 2121

Telephone: 02 9876 4757

Email: info@qssolutions.com.au

ABN 44 532 823 563

29 October 2018

File No: 1019.451

The Owners SP16651

C/o Michael Barsoum

Strata Choice

Locked Bag 1919

St Leonards NSW 1590

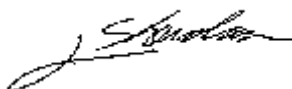
Dear Michael,

**RE: BROUGHTON HOUSE CAPITAL WORKS FUND
181 CLARENCE STREET, SYDNEY NSW**

Further to our proposal and your subsequent commission, QS Solutions are pleased to enclose our capital works fund for the above property.

Should you have any queries please do not hesitate to contact Justin Sheridan of this office.

Yours sincerely



Justin Sheridan

QS Solutions

Enc

Broughton House Capital Works Fund



**181 Clarence Street, Sydney NSW
The Owners, Strata Plan 16651**

October 2018

File No: 1019.451

QS Solutions

Capital works fund specialists

23 Kirkwood Avenue

Epping NSW 2121

Telephone: 02 9876 4757

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1. Introduction

Under instructions from Michael Barsoum of Strata Choice, QS Solutions have prepared an independent capital works fund for strata plan 16651 at 181 Clarence Street, Sydney NSW. The purpose of the assessment is to assist the owners corporations plan for the future by identifying when capital works expenses may be required for specific building assets. The assessment will help the owners corporation plan for the timely reinstatement of the building's assets as they near the end of their effective life. As such the assessment is used as a basis to calculate reasonable capital works fund contributions so the building retains its desired quality while reducing the need for special capital works levies.

2. Building Description

The property is 44m by 28m and located at the intersections of Kent, King and Clarence Streets in Sydney.

The property contains 7 upper levels with 61 residential lots, a ground level with entry lobby and car parking and lower level part basement car parking.

The building has an ornate brick façade with painted trims and painted ground level.

The roof recreation area has been fully refurbished including a new roof membrane, tennis court, lounge area, kitchen and barbeque facilities. The first floor contains a heated swimming pool, spa and sauna.

The building is serviced by 2 passenger lifts, a central hot water system, security entry and recording systems, tall building fire services and central air-conditioning plant.

3. Valuation Methodology

Section 79 of the Strata Schemes Management Act 2015 requires owner corporations to estimate the funds they should set aside each year for anticipated capital works expenditure. This good property management recognises that all owners contribute to a buildings wear and tear and should contribute towards the costs of reinstating the buildings wear and tear.

This independent and unbiased capital works assessment is prepared to assist owners in estimating the funds they should set aside each year for the building's anticipated capital expenditure.

The timely reinstatement of these assets, as they near the end of their effective life, is used as a basis to calculate reasonable annual contributions so the property retains its desired quality while reducing the need for significant one off contributions.

3.1 Benefits of future planning

This capital works fund includes assets anticipated to require capital expenditure within the next 10 years. This future planning:

- Spreads the cost of capital reinstatement over a number of years;
- Reduces the financial pressure of large special levies;
- Improves a strata's cash flow provision;
- Improves a strata's ability to react to sudden or emergency events;
- Improves the capital value of each lot;
- Maintains the buildings desired appearance and performance; and
- Can assist in reducing owner contributions if invested capital works fund interest contributes towards Capital works fund levies.

3.2 Included assets

The included capital works assets are understood to be the responsibility of the owners corporation which can not be economically repaired or maintained without reinstatement. The capital works fund excludes regular administration, repairs and maintenance costs.

QS Solutions has reviewed the strata plan and is not aware of any by-laws or other agreements which alter the extent of assets for which the owners corporation is responsible.

3.3 Reinstatement years

While an asset's life can be extended indefinitely with unlimited expenditure on repairs and maintenance it is assumed that the asset's effective lives end when it is no longer economic to maintain them.

The reinstatement year is the number of years until the asset is anticipated to reach the end of its effective life for its intended purpose and will be wholly or substantially reinstated.

These life expectancies are based on our site inspection and the following factors:

- Its age, current condition and insured duration;
- Historical performance of the asset and similar assets in comparable buildings;
- Local conditions and its ability to carry out its intended function;
- The owners corporations required standards.

3.4 Reinstatement costs

Reinstatement costs are the estimated costs to restore assets back to their original standard.

The costs:

- Assume the work will be carried out by qualified and independent tradespeople;
- Are at the date noted in the report;
- Consider the availability of replacement parts;
- May allow for partial restoration or total replacement;
- Exclude GST which is included at the bottom of the analysis after summing the annual cost of all assets. Owners should consider their requirements for collecting and paying GST when reviewing the Capital works fund.

3.5 Inflation rate

The estimated building inflation rate is anticipated over the life of the capital works fund.

The rate refers to building costs and is not the consumer price index. Variances in inflation can significantly impact a capital works funds cash position and it is recommended the capital works fund be periodically updated to address inflation discrepancies.

4. Reviewing & Refining

Variations to this capital works fund are likely due to unforeseen events. The Strata Schemes Management Act requires owner corporations to periodically take into account the capital works fund and reviewed the capital works fund at least once every 5 years.

4.1 Why review

The capital works fund assessment is an estimate based upon all available information and the predicted impact of reasonably foreseeable events at the date of the report. It uses a number of assumptions in an attempt to provide an indication of the required annual capital works contributions. Reinstatement assets, durations, costs and inflation are intended as a guide for the purpose of contributing a reasonable annual allowance to the capital works fund. As an integral property management tool, capital works funds should be regularly refined as the building ages to ensure anticipated expenses and quality expectations can be met.

4.2 Refining

Owners can improve the accuracy of anticipated capital works fund contribution and expenditure obligations by:

- Regularly reviewing the building's condition and excluding any redundant future expenses and budgeting for previously unforeseen expenses;
- Ensuring that all included assets are the responsibility of the owners corporation;
- Considering the consequences of allowing assets to deteriorate past their effective life when estimating reinstatement dates;
- Ensuring reasonable reinstatement costs for the anticipated scope of work;
- Including a reasonable contingency allowance and inflation rate;
- Allowing for possible expenses due to changes in legislation or other items identified in the general exclusions section of this report;
- Obtaining expert independent advice from maintenance contractors or specialist consultants if unsure about a particular asset;
- Focusing on assets with high annual maintenance and capital works fund contribution costs.

Any adjustment to the capital works fund will require the report to be recalculated by QS Solutions.

5. Information for Substantiation

This report is based on our understanding of the capital works fund principles as outlined in the Strata Schemes Management Act 2015.

5.1 Site inspection

The property was visited on 18 September 2018 and an inspection of the common property completed. Common property assets were identified and inspected where possible. The life expectancy and reinstatement cost of these assets was assessed and the annual contributions and expenditure calculated based on an appropriate inflation rate.

When unable to examine an asset we have assumed it's condition and method of construction bearing in mind the age and character of the property.

5.2 General inclusions and exclusions

Unless specifically noted the capital works fund makes no allowance for expenditure resulting directly or indirectly from:

- Unforeseeable events;
- Changes to the use of the building;
- Building defects, water damage, termites or pests;
- Insurance work;
- Work to comply with government legislation, building codes, Occupational Health and Safety or Australian Standards.

Commercial and technological obsolescence is considered when determining the effective life of an asset. Obsolescence can be difficult to predict as asset parts may no longer be available or more cost effective alternative may becomes available.

5.3 Specific exclusions

Assets anticipated to not require capital works expenditure within the next 10 years include:

- Consultant & legal fees.
- Lot car space enclosures including doors.
- Failed waterproofing to wet areas within lots.
- Balcony enclosures as understood to be maintained by lot owners.
- Letter box's.
- Upgrading the fire stair & car park lighting to energy efficient LED lighting.
- Pot plants.
- Fire dampers to ventilation ductwork.
- Sealing or paving paint to car park flooring.
- Waterproofing the roof level water storage tank (adjoining fire services pump).
- Domestic water supply booster pump as none installed.
- Installing child window safety locks.
- Fire order works or occupational health & safety requirements. QS Solutions have a basic awareness of these requirements and note that compliance costs can be considerable. We recommend the owners obtain independent expert advice to establish the possible scope and costs of this work.

5.4 Specific inclusions

Assets anticipated to require Capital works expenditure within the next 10 years include:

- Lot air-conditioning as maintained by the owners corporation.
- Ventilation fans including toilets, pool, lobby, garbage and car park.
- Passenger lift overhaul including NBN telephone installation.
- Annual fire safety works including detectors, doors, valves, hose reels and lighting.
- Minor plumbing works including sewer pipes, storm water and water supply.
- Minor electrical works including lighting and main board.
- Repainting, renewing or replacing common fixtures and finishes.
- Minor structural works including the upper level car park entry slab works as advised.

6. Capital Works Fund Analysis

The following contribution and expenditure table analysis provide a list of capital works assets and their reinstatement dates and costs within 10 years. The list is an estimate based on information available at the time of the report and should be regularly reviewed and updated.

The contribution table assesses the funds to be collected while the expenditure table shows the cost to carry out the work. The tables refer to financial years and the asterisk (*) indicates the year in which each asset will be reinstated.

6.1 Asset Contributions

The contributions table analysis overleaf calculates the annual funds to be set aside for each asset. This highlights the impact each asset has on the capital works fund and ensures sufficient fund are available to reinstate each asset when required.

The sum of the capital works fund accumulation row is recalculated in the capital works fund levies row to provide annual capital works fund levies after deducting the opening capital works fund balance.

SP16651, 181 Clarence Street, Sydney NSW Assets as at October 2018		Reinstatement years		Reinstatement Cost (2018)	Capital works contributions										* Year of reinstatement			Building Inflation Rate		
		First	Subsequent		2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028						
1	Windows And Doors Overhaul																			
2	Garage roller door motors & springs (1 of 2)	3	4	2,500	901	937	974	775	806	838	871	906	943	980						
3	Garage roller doors	5	7	6,000	1,348	1,402	1,458	1,516	1,577	1,216	1,265	1,315	1,368	1,423						
4	Windows & balcoar doors	2	3	20,000	10,604	11,028	7,795	8,107	8,431	8,768	9,119	9,484	9,863	10,258						
5	Common doors	3	5	2,000	721	750	780	505	526	547	568	591	615	639						
6	Internal Painting																			
7	Typical floor corridors (incl doors & garbage room)	2	8	50,000	26,510	27,570	8,032	8,354	8,688	9,035	9,397	9,773	10,164	10,570						
8	Entry lobby incl entry awning	2	8	3,000	1,591	1,654	482	501	521	542	564	586	610	634						
9	Pool area	7	9	7,500	1,250	1,300	1,352	1,406	1,462	1,520	1,581	1,627	1,680	1,736						
10	Roof level common room incl awning	10	11	3,500	432	449	467	485	505	525	546	568	591	614						
11	Fire stair (walls, ceiling, floor & railing)	7	9	30,000	4,998	5,198	5,406	5,622	5,847	6,081	6,324	6,576	6,834	7,098						
12	Car park walls & columns	7	9	35,000	5,851	6,065	6,307	6,559	6,822	7,095	7,379	7,672	7,974	8,286						
13	Car park ceiling	10	20	40,000	4,952	5,129	5,334	5,547	5,769	6,000	6,240	6,490	6,749	7,019						
14	Car park line marking	7	15	2,500	417	433	451	469	487	507	527	549	571	594						
15	External Painting																			
16	Lower level walls & entry awning	5	12	14,000	3,145	3,271	3,401	3,537	3,679	3,815	3,955	4,096	4,238	4,382						
17	Upper level trims	6	13	170,000	32,430	33,727	35,076	36,479	37,938	39,455	41,027	42,654	44,337	46,076						
18	Balconies	6	13	32,000	6,104	6,349	6,602	6,867	7,141	7,427	7,726	8,029	8,336	8,647						
19	Light wall & south wall	5	20	38,000	8,536	8,877	9,232	9,602	9,986	10,384	10,795	11,219	11,657	12,108						
20	Roof recreation area	10	11	12,000	1,479	1,539	1,600	1,664	1,731	1,800	1,872	1,947	2,025	2,106						
21	Floor Finishes																			
22	Carpet to corridors	5	12	84,000	18,869	19,623	20,408	21,225	22,074	22,955	23,868	24,814	25,794	26,808						
23	Vinyl to garbage rooms	5	12	2,000	449	467	486	505	526	549	572	597	622	648						
24	Overhaul entry lobby floor tiles incl steps & mat	8	15	5,000	743	772	803	835	869	904	940	977	1,015	1,054						
25	External Structure Overhaul																			
26	Roof membrane	8	15	25,000	3,713	3,862	4,016	4,177	4,344	4,518	4,698	4,886	5,077	5,270						
27	Repoint waterproof sections of brick facade	1	8	20,000	20,800	3,089	3,213	3,341	3,475	3,614	3,759	3,909	4,065	4,228						
28	Balcony waterproofing	6	8	6,000	1,145	1,190	1,238	1,287	1,339	1,393	1,448	1,504	1,561	1,620						
29	Street awning	7	12	5,000	833	866	901	937	975	1,014	1,054	1,095	1,137	1,180						
30	Glass balustrade to roof level (replace 1 panel)	6	7	3,000	572	595	619	644	669	696	723	751	779	808						
31	Mechanical																			
32	Ventilation fans (1 of 12)	1	1	6,000	6,240	6,490	6,749	7,019	7,300	7,592	7,896	8,211	8,540	8,881						
33	Star presunshion fans (1 of 2)	5	9	5,000	1,123	1,168	1,215	1,263	1,314	818	851	885	920	957						
34	Condenser water motor & pump (1 of 2)	2	4	5,500	2,916	3,033	3,169	3,314	3,468	3,631	3,799	3,971	4,148	4,330						
35	Overhaul cooling tower	6	16	23,000	4,368	4,563	4,746	4,935	5,133	5,338	5,548	5,762	5,981	6,204						
36	Lot air-conditioning plant (3 of 6)	1	1	21,000	21,840	22,714	23,622	24,567	25,550	26,572	27,633	28,740	29,890	31,083						
37	Managers office air-conditioning	7	10	2,500	417	433	451	469	487	507	527	549	571	594						
	Brought Forward				195,273	184,542	164,855	170,905	177,741	162,530	142,404	144,246	147,610	133,515						

SP16651, 181 Clarence Street, Sydney NSW Assets as at October 2018		Reinstatement Cost (2018)	Reinstatement Years Subsequent	Reinstatement Cost (2018)	Capital works contributions	* Year of reinstatement	4% Building	Inflation Rate						
Carried Forward	First	Subsequent	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028		
38 Electrical & Security			195,273	184,542	164,855	170,905	177,741	162,530	142,404	144,246	147,610	153,515		
39 Minor electrical works	1	1	3,000	3,245	3,375	3,510	3,650	3,796	3,948	4,106	4,270	4,441		
40 Intercom system overhaul	4	6	3,000	860	894	930	669	696	724	753	783	815		
41 Television antenna system incl. boosters & filters	8	12	1,500	232	241	251	261	271	282	293	219	227		
42 Security recording system (overhaul)	4	5	5,000	1,377	1,490	1,549	1,614	1,666	1,421	1,478	1,537	1,599		
43 Passenger Lifts (no 2)														
44 Phone upgrade to nba	2	0	5,000	2,651	2,757	0	0	0	0	0	0	0		
45 Internal finishes & burlons	8	15	75,000	11,140	12,049	12,531	13,032	13,553	14,095	14,659	9,232	9,601		
46 Lift car and landing door systems	8	15	72,000	10,694	11,122	11,567	12,029	12,510	13,011	14,073	8,863	9,217		
47 Safety upgrade	8	15	30,000	4,456	4,634	4,819	5,012	5,213	5,421	5,644	3,693	3,840		
48 Mean hoisting machine, drive system & controls	10	25	150,000	18,494	20,003	20,803	21,655	22,500	23,400	24,336	25,310	26,322		
49 Hydraulics														
50 Minor plumbing works	1	1	6,000	6,240	6,490	6,749	7,019	7,300	7,592	8,211	8,540	8,881		
51 Hot water boilers (1 of 4)	2	3	6,500	3,446	3,584	2,533	2,740	2,830	2,964	3,082	3,206	3,334		
52 Fire Services														
53 Annual fire safety works	1	1	8,000	8,320	8,653	8,999	9,359	9,733	10,123	10,527	11,386	11,842		
54 Fire indicator panel (overhaul)	6	15	3,000	572	619	644	669	696	341	355	369	384		
55 Fire services pumps overhaul	7	12	15,000	2,499	2,703	2,811	2,924	3,041	3,162	2,103	2,187	2,275		
56 Recreation Area & Equipment														
57 Pool heat pumps (1 of 3)	3	6	3,000	1,802	1,949	1,073	1,116	1,160	1,207	1,255	1,305	1,358		
58 Pool pumps & filters (replace 1/3) 7 years old	2	3	3,000	1,591	1,654	1,216	1,265	1,315	1,368	1,423	1,479	1,539		
59 Pool finishes including coping tiles	9	15	25,000	3,362	3,497	3,782	3,933	4,091	4,254	4,425	4,602	3,200		
60 Sauna's overhaul (heater & finishes)	8	15	8,000	1,188	1,236	1,337	1,390	1,446	1,503	1,564	985	1,024		
61 Change rooms & toilets overhaul	8	15	8,000	1,188	1,236	1,337	1,390	1,446	1,503	1,564	985	1,024		
62 Overhaul vegola motors & controls	5	6	3,000	674	701	758	788	824	855	753	783	815		
63 Recreation area furniture	5	6	6,000	1,348	1,402	1,458	1,516	1,577	1,648	1,506	1,566	1,629		
64 Tennis court surface & fence (overhaul)	10	11	25,000	3,082	3,206	3,334	3,467	3,606	3,750	4,056	4,218	4,387		
65 Barbecue equipment	8	9	4,000	594	618	643	668	695	723	782	736	766		
66 Rodge & dishwasher	7	8	2,500	417	433	451	469	487	507	489	508	529		
67 Kitchen joinery & flooring	10	11	7,000	863	898	933	971	1,010	1,050	1,136	1,181	1,228		
68 Overhaul raised floor to roof level	6	7	5,000	954	992	1,032	1,073	1,116	1,160	1,096	1,140	1,186		
69 General														
70 Garbage compactor overhaul	3	8	10,000	3,603	3,748	3,898	4,071	4,258	4,458	4,671	4,898	5,139		
71 Minor structural works	1	7	25,000	26,000	4,332	4,505	4,685	4,873	5,068	5,481	5,700	5,928		
72 Contingency / Minor Items 5%				15,800	14,369	13,360	13,700	14,219	13,653	13,100	12,721	13,151		
73 Capital works accumulation (excluding GST)				331,798	301,756	280,562	287,710	298,593	286,711	269,658	273,090	267,149		
SP16651, 181 Clarence Street, Sydney NSW				Opening Bal	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
Capital works levies at 4% increase PA ** (excluding GST)				363,000	290,000	209,982	218,381	227,117	236,201	245,649	255,475	263,694	276,322	287,375

** The sum of row 73 smoothed after deducting the opening balance & levies set for 2018-2019

6.2 Asset Expenditure

The expenditure analysis shows when funds will be withdrawn from the capital works fund.
The expenditure costs are at the date of reinstatement and include for inflation.

Reinstatement years		Capital works expenditure					* Year of reinstatement				4% Building Inflation Rate					
		First	Subsequent	Reinstatement Cost (2018)	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028		
SP16651, 181 Clarence Street, Sydney NSW																
Assets as at October 2018																
1	Windows And Doors Overhaul															
2	Garage roller door motors & springs (1 of 2)	3	4	2,500			2,812 *					3,290 *				
3	Garage roller doors	5	7	6,000				7,300 *								
4	Windows & balcony doors	2	3	20,000			21,632 *	24,333 *				27,371 *				
5	Common doors	3	5	2,000			2,250 *					2,737 *				
6 Internal Painting																
7	Typical floor corridors (incl doors & garbage room)	2	8	50,000			54,080 *						74,012 *			
8	Entry lobby incl entry awning	2	8	3,000			3,245 *						4,441 *			
9	Pool area	7	9	7,500								9,869 *				
10	Roof level common room incl awning	10	11	3,500									5,181 *			
11	Fire stair (walls, ceiling, floor & railing)	7	9	30,000									39,478 *			
12	Car park walls & columns	7	9	35,000									46,038 *			
13	Car park ceiling	10	20	40,000									59,210 *			
14	Car park line marking	7	15	2,500									3,290 *			
15 External Painting																
16	Lower level walls & entry awning	5	12	14,000				17,093 *								
17	Upper level trims	6	13	170,000					215,104 *							
18	Balconies	6	13	32,000				46,233 *								
19	Light wall & south wall	5	20	38,000												
20	Roof recreation area	10	11	12,000									17,763 *			
21 Floor Finishes																
22	Carpet to corridors	5	12	84,000				102,199 *								
23	Vinyl to garbage rooms	5	12	2,000				2,433 *								
24	Overhaul entry lobby floor tiles incl steps & mat	8	15	5,000								6,843 *				
25 External Structure Overhaul																
26	Roof membrane	8	15	25,000								34,214 *				
27	Repoint waterproof sections of brick facade	1	8	20,000			20,800 *						28,466 *			
28	Balcony waterproofing	6	8	6,000							7,592 *					
29	Street awning	7	12	5,000								6,580 *				
30	Glass balustrades to roof level (replace 1 panel)	6	7	3,000							3,796 *					
31 Mechanical																
32	Ventilation fans (1 of 12)	1	1	6,000			6,240 *	7,019 *	7,300 *	7,592 *	7,896 *	8,211 *	8,540 *	8,881 *		
33	Star pressurisation fans (1 of 2)	5	9	5,000				6,083 *				6,959 *		8,141 *		
34	Condenser water motor & pump (1 of 2)	2	4	5,500			5,949 *					29,102 *				
35	Overhaul cooling tower	6	16	23,000												
36	Lot air-conditioning plant (3 of 6)	1	1	21,000			21,840 *	22,714 *	23,622 *	24,567 *	25,550 *	26,572 *	27,635 *	28,740 *		
37	Managers office air-conditioning	7	10	2,500								3,290 *		31,085 *		
Brought Forward																
							48,880	114,109	35,433	31,586	238,464	337,208	147,384	108,117	66,896	208,714

SP16651, 181 Clarence Street, Sydney NSW Assets as at October 2018		Reinstatement Years		Reinstatement Cost (2018)	Capital works expenditure						* Year of reinstatement				4% Building		Inflation Rate 2027-2028
		First	Subsequent		2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028			
Carried Forward					48,880	114,109	35,433	31,586	238,464	337,208	147,384	108,117	66,896	208,714			
38 Electrical & Security																	
39	Minor electrical works	1	1	3,000	3,120	3,245	3,375	3,510	3,650	3,796	3,948	4,106	4,270	4,441			
40	Intercom system overhaul	4	6	3,000			3,510					2,053		4,441			
41	Television antenna system incl. boosters & filters	8	12	1,500													
42	Security recording system (overhaul)	4	5	5,000				5,849					7,117				
43 Passenger Lifts (no 2)																	
44	Phone upgrade to nbn	2	0	5,000		5,408											
45	Internal finishes & buttons	8	15	75,000								102,643					
46	Lift car and landing door systems	8	15	72,000								98,537					
47	Safety upgrade	8	15	30,000								41,057					
48	Main hosting machine, drive system & controls	10	25	150,000										222,037			
49 Hydraulics																	
50	Minor plumbing works	1	1	6,000	6,240	6,490	6,749	7,019	7,300	7,592	7,896	8,211	8,540	8,881			
51	Hot water boilers (1 of 4)	2	3	6,500		7,030			7,908			8,896					
52 Fire Services																	
53	Annual fire safety works	1	1	8,000	8,320	8,653	8,999	9,359	9,733	10,123	10,527	10,949	11,386	11,842			
54	Fire indicator panel (overhaul)	6	15	3,000						3,796							
55	Fire services pumps overhaul	7	12	15,000							19,739						
56 Recreation Area & Equipment																	
57	Pool heat pumps (1 of 3)	3	6	5,000			5,624						7,117				
58	Pool pumps & filters (replace 1/3) 7 years old	2	3	3,000		3,245			3,650			4,106					
59	Pool finishes including coping tiles	9	15	25,000									35,583				
60	Sauna's overhaul (heater & finishes)	8	15	8,000								10,949					
61	Change rooms & toilets overhaul	8	15	8,000								10,949					
62	Overhaul vegola motors & controls	5	6	3,000					3,650								
63	Recreation area furniture	5	6	6,000					7,300								
64	Tennis court surface & fence (overhaul)	10	11	25,000													
65	Barbeque equipment	8	9	4,000								5,474					
66	Fridge & dishwasher	7	8	2,500													
67	Kitchen joinery & flooring	10	11	7,000										10,362			
68	Overhaul raised floor to roof level	6	7	5,000						6,327							
69 General																	
70	Garbage compactor overhaul	3	8	10,000			11,249										
71	Minor structural works	1	7	25,000	26,000							34,214					
72	Contingency / Minor Items 5%				15,800	14,369	13,360	13,700	14,219	13,653	12,841	13,100	12,721	13,151			
73	Capital works expenditure (excluding GST)				108,360	162,549	84,789	74,533	295,874	382,493	205,625	463,359	153,629	520,875			

6.3 Summary

The following recommended levies and expenditure columns are from the asset contribution and expenditure tables.

The summary does not consider assets individually which could result in insufficient levies being raised if unexpected capital works fund expenditure occurs.

The summary should only be relied upon once the contribution and expenditure analysis have been reviewed and fully understood.

SP16651, 181 Clarence Street, Sydney NSW				
Capital works cashflow including GST				
Financial Year	Opening balance	Levies at 4% increase PA	Anticipated Expenditure	Closing balance
2018-2019	363,000	290,000 *	108,360	544,640
2019-2020	544,640	209,982	162,549	592,074
2020-2021	592,074	218,381	84,789	725,666
2021-2022	725,666	227,117	74,533	878,250
2022-2023	878,250	236,201	295,874	818,577
2023-2024	818,577	245,649	382,493	681,733
2024-2025	681,733	255,475	205,625	731,583
2025-2026	731,583	265,694	463,359	533,919
2026-2027	533,919	276,322	153,629	656,612
2027-2028	656,612	287,375	520,875	423,112

* Levies set for 2018-2019

7. Disclaimer

This capital works fund assessment has been prepared for the sole purpose of calculating the estimated annual capital works contributions to allow for the anticipated capital works expenditure. It should not be used for any other purpose.

The contents of this assessment are confidential to the instructing party and essential parties dealing with the strata's capital works fund and are not to be distributed to anyone else without the agreement of QS Solutions, which agreement will not be unreasonably withheld. QS Solutions does not accept any contractual, tortious or other form of liability for any consequences, loss or damage that may arise as a result of any other person acting upon or using this assessment.

It is intended that this assessment will be read in full and no responsibility is accepted for later extractions, amendments, interpretations or distribution of parts of the contents of this assessment to any party.

APPENDIX G FAÇADE REPAIR TENDER PACKAGE

SPECIFICATION**BRICK AND CONCRETE REPAIRS**

1. GENERAL

1.1. SCOPE OF WORK**Generally**

This Specification applies to the furnishing of all labour, materials, tools, equipment and accessories required to carry out the BRICKWORK AND CONCRETE REPAIRS to the Broughton House facade.

Work In This Scope

The work in this project includes:

Brickwork

- Repointing of brickwork.
- Tuck pointing of brickwork (stencilled mortar missing).
- Repair of cracked and damaged bricks.
- Replacement of missing bricks.
- Stabilisation of cracking brickwork.

Render and stucco

- Removal of organic growth.
- Repair of cracked and drummy render and concrete.
- Replacement of missing sections of concrete and render.
- Repair of previous membrane repair to reinforced concrete.

Metalwork

- Rust treatment of awning frame.

Drawings

This specification is to be read in conjunction with Apex Diagnostics drawings 165/001 D01, D02, D03.

1.2. STANDARDS**General**

Materials and construction: To AS 3700.

1.3. INTERPRETATION**Definitions**

General: For the purposes of this worksection the definitions in AS 3700 clause 1.5.2, AS/NZS 4455.1. The following definitions also apply:

Demolition:

The complete or partial dismantling of a building or structure, by pre-planned and controlled methods or procedures.

Dilapidation Record:

The photographic or video and written record made before commencement of demolition work of the condition of the portion of the existing building being retained, adjacent buildings, and other relevant structures or facilities.

Dismantle:

The reduction of an item to its components in a manner to allow re-assembly.

Recover/Salvage:

The disconnection and removal of an item in a manner to allow re-installation.

Facework (facebrick): Masonry intended to be exposed in a wall.

Repair brickwork: The term "Repair brickwork" in this Specification and on the drawings shall mean:

SPECIFICATION**BRICK AND CONCRETE REPAIRS**

Repair the existing brickwork by replacing broken or decayed bricks with sound salvaged or new bricks; and/or rebuilding panel in its correct alignment using existing sound bricks (face for facework and commons for common work) wherever possible and new bricks to match existing. The repaired brickwork shall match the existing as defined above.

New brickwork to match existing:

The term "new brickwork to match existing" in this specification and on the drawings shall mean:

The new face brickwork shall match the existing adjacent face brickwork in all respects including:

- brick dimensions
- face brick colour and texture
- brick rod and bond details
- joint thicknesses
- sill details
- head details

Repointing:

Repoint joints to repaired brickwork and all joints which have lost their pointing or which have cement mortar pointing.

1.4. INSPECTION**Witness points**

Give Notice so that the following may be inspected:

- Set out.
- Unit type, colour and texture.
- Pin type and diameter.
- Positioning of pins and bars before grouting.

1.5. TOLERANCES**Brick and block construction**

Standard: To AS 3700 Table 12.1.

1.6. SUBMISSIONS**Samples**

Face units: Submit face units of each type illustrating the range of variation available, including colour, texture, surface irregularities, defective arrises, and shape.

- Number of each type: 6.

Facework sample panel: Provide, in a suitable position, a sample panel of each type of facework including pigmented face or pointing mortar (including tuck pointing).

- Minimum size (face of panel): 1200mm high x 1190mm or closest unit module long.

Sand: Submit a 2kg sample of each type of sand required to be of a particular colour, grade or source.

Refer to **Project Requirements: Samples**

Prototypes

Construct prototypes of each type of brickwork repair and modification and repointing.

2. MATERIALS

2.1. DURABILITY**General**

Exposure locations: To AS 3700 clause 5.4.

2.2. MATERIALS**Brick and block units**

Standard: To AS/NZS 4455.1 and AS/NZS 4455.3.

SPECIFICATION**BRICK AND CONCRETE REPAIRS**

Salt attack resistance grade: To AS 3700 Table 5.1.

Minimum age of clay bricks: 7 days.

Salvaged Bricks

Second hand face bricks salvaged from dismantled buildings and structures can be incorporate in repairs to face brick walls of Broughton House. Provide samples of salvaged bricks for approval by the Proprietor and Heritage Architect. Salvage bricks may need to be cut down to suit existing coursing.

Mortar materials

Mortar class: To AS 3700 Table 5.1.

Cement: To AS 3972.

White cement: With \leq 1% iron salts content.

Lime: To AS 1672.1.

Sand: Fine aggregate with a low clay content and free from efflorescing salts, selected for colour and grading.

Water: Clean and free from any deleterious matter.

Admixtures: Do not provide admixtures.

Face or pointing mortar: Lime-rich mortar, colour and texture to match adjacent existing brickwork.

Tuck pointing: stencil piping with black oxide coloured lime rich pointing mortar (coloured to match existing).

Mortar Classification Schedule

Classification (Table 2.1)	Proportions cement:lime:sand	Location
M1	1:3:12	For repairs and modifications to (E) brickwork
M2	1:2:9	For pointing
M3	1:1:6	For general construction

Compressive Strength

Mortar Classification M3 (1:1:6) shall have an average compressive strength at 28 days of 12MPa.

2.3. BUILT-IN COMPONENTS**General**

Durability class of built-in components: To AS 3700 Table 5.1.

Connectors and accessories

Standard: To AS/NZS 2699.2.

Corrosion protection: To AS/NZS 2699.2.

2.4. TESTS**Mortar**

Durability: Scratch index test to AS 3700 Appendix E.

Compressive strength: To AS 3700 Appendix C.

Flexural strength: To AS 3700 Appendix D.

3. EXECUTION**3.1. WORKMANSHIP GENERALLY****Standard**

- General requirements to AS 3700 Section 8.
- Tradespeople to have demonstrated prior experience working with historic buildings and structures.

SPECIFICATION**BRICK AND CONCRETE REPAIRS**

- Construction shall be of the best quality workmanship and all walls shall be laid true and plumb with bricks fully bedded.
- Keep mortar stains to a minimum and protect brickwork from mortar droppings as work proceeds.

"Grassing" of Bricks

Do not lay clay bricks until they have been out of the kiln for at least 14 days.

Joints, pointing and cutting

Set out: Set out masonry with joints of uniform width and minimise cutting of masonry units.

Holes, sleeves and chases: Build in during erection. Do not chase existing masonry without prior approval from the Principal.

Concealed Work

Cut the joints flush but leave them unstruck in masonry not visible in the completed works.

Joint Profile

To match existing.

Mortar mixing

General: Measure volumes accurately to the documented proportions. Machine mix for at least six minutes.

Protection from contamination

General: Protect masonry materials and components from ground moisture and contamination.

Bond

Existing work: Rod and bond to match existing.

Mortar joints

Solid units: Lay on a full bed of mortar. Fill perpends solid. Cut mortar flush to match existing details.

Face-shell bedded hollow units: Fill perpends solid. Cut mortar flush.

Finish: Conform to the following:

- Externally: Tool to give a dense water-shedding finish.
- Thickness: 10 mm.

Cutting: Set out masonry with joints of uniform width and minimum cutting of masonry units.

Rate of construction

General: Regulate the rate of construction to eliminate joint deformation, slumping or instability.

Rods

Set out: Construct masonry to match the existing.

Protection

General: Cover the top surface of brickwork and blockwork to prevent the entry of rainwater and contaminants.

Single leaf and solid walls: Moisture protection to AS 3700 clause 4.7.4.

Temporary protection and support

General

- Provide temporary weather protection to prevent water entry to the interior of the building.
- If the final stability of the masonry is dependent on construction of (structural) elements after the brickwork is completed, provide proposals for temporary support or bracing.

3.2. FACEWORK**Cleaning**

General: Clean progressively as the work proceeds to remove mortar smears, stains and discolouration. Cleaning to be undertaken using a soft bronze or nylon bristle brush, do not use high pressure water spray.

Acid solution: Do not use.

SPECIFICATION**BRICK AND CONCRETE REPAIRS**

Perpends

General: If other than vertically aligned perpends in alternate courses are proposed, provide details.

Tuck pointing

Repoint missing mortar and apply coloured mortar stencil piping to match the original in colour and composition (nominally black, lime rich mortar).

3.3. REPAIR OF CRACKED AND DAMAGED BRICKS

Apply colour matched mortar repair mortar, filling the cracks and defects to as great a depth as possible using a small tool on edge and finish flush with the face of the brickwork.

Damage to > 30% of the face of the brick: the brick is to be replaced with a matching brick.

3.4. REPLACEMENT OF MISSING BRICKS

Install new bricks to closely match the existing. Use bedding and pointing mortar that closely matches the existing mortars in colour and composition.

3.5. STABILISATION OF CRACKING BRICKWORK**General**

Install Helifix crack repair stitching to areas of cracking brickwork.

Location: refer to Apex Diagnostics drawings.

Materials

- Crack stitching bars – Helifix Helibar.
- Injectable cementitious grout for crack stitching bars - Helifix HeliBond.

Methodology

Helibar installation: slot spacing every 3 courses of brickwork. Each slot will be the equivalent to the mortar joint height, with a minimum of 8mm height. Helibar will be long enough to extend a minimum of 500mm either side of the crack.

Brick crack stitch repair:

- Using an appropriate power cutting tool with vacuum attachment, cut slots into the horizontal mortar joints, to the specified depth and at the required vertical spacing. Ensure that as much mortar is removed as possible from the exposed brick surfaces in order to provide a good masonry/grout bond.
- Clean out all dust and loose mortar from the slots and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use HeliPrimer WB. ensure the slot is damp or primed.
- Mix HeliBond cementitious grout thoroughly using a drill and mixing paddle and load into the Helifix pointing Gun.
- Fit the mortar nozzle to the pointing gun.
- Inject a bead of HeliBond grout, 10-15mm deep, into the back of the slot.
- Push the HeliBar into the grout to obtain good coverage.
- Inject a second bead of HeliBond grout over the exposed HeliBar and iron it into the slot using a finger trowel. inject additional HeliBond as necessary, leaving 10-15mm for new pointing.
- Point up the remaining slot with a suitable matching mortar and make good the crack using an appropriate Helifix bonding agent or filler, e.g. crackBond, depending on the width of the crack.

3.6. CLEANING OF BRICKWORK**General**

Scope of work shall include:

- Removal of products of masonry decay such as exfoliation, loose surface granules, pieces of mortar.
- Application of approved cleaning agents for the removal of salts, stains, dirt, urban grime and bird droppings from brickwork.
- Application of approved cleaning agents for the removal of organic growth - plants, lichen mosses, algae and fungi.

SPECIFICATION**BRICK AND CONCRETE REPAIRS**

- Cleaning of brickwork externally including reveals of all openings with approved cleaning agents. Note: cleaning with acid is not allowed.

Location:

Clean nominated areas of brickwork efflorescence and contamination to Broughton House facade.

Location: refer Apex Diagnostics Drawings.

Intent

The aim is to use a cleaning method that will most satisfactorily achieve the best results with the least deleterious effects to the facade fabric. Refrain from over cleaning. Do not attempt to produce an 'as new' appearance. Tenacious grime and stains, the removal of which shall damage the face of the masonry (brick and/or stone) is to remain. Any proposed cleaning agent other than water is to be given approval in writing prior to the commencement of the cleaning works and then approval shall be given for the areas specified in the approval.

Precautions during cleaning

Generally: Take the necessary precautions to prevent damage to the building and its surroundings, and nuisance to other persons on site, resulting from the cleaning operations. Prevent water and cleaning wastes from entering the building or spraying over surrounding areas.

Runoff: Prevent runoff from the cleaning operations. Collect residual water and cleaning wastes and divert them to an approved means of disposal. Prevent contaminated water from entering the stormwater system and soaking into the ground adjacent to the building.

Requirement: Comply with the Clean Waters Act and subsequent amendments.

Sheeting: Enclose the exterior of the scaffolding with continuous sheeting sealed to prevent nuisance to the public from the brickwork cleaning operations.

Warning notices: Provide notices in conspicuous positions where necessary to warn occupants or the public of dangers or risks associated with the work.

Sample Panel

Requirement: Provide sample panel in an approved location. Test clean the designated area by the methods specified including final washing, and testing of the surface for neutrality. Allow for supplementary panels if approval is not achieved with the first.

Size: 1.2m x 1.2m.

Records: Record the sequence of test cleaning operations, durations of pre-wetting, cleaning and scrubbing, water pressure, flow rate and temperature, result of neutrality test, and other relevant details, and provide a copy of the record to the Proprietor. Submit records of approved panel at Practical Completion.

Fixtures and Foreign Matter

Requirement: Before cleaning commences, remove the following without damaging the brickwork:

- Foreign matter including old finishes that have been specified for removal, graffiti, bird droppings, soot and façade vegetation.
- Existing fixtures required to be removed.
- Any loose bricks are to be removed. Report any loose bricks found not identified for repairs or replacement prior to removal.

Bird droppings and soot: Where encrustations require scraping, use a wooden scraper on vulnerable brick surfaces.

Facade vegetation: Where present, poison designated vegetation, and remove after it has died.

Existing fixtures required to be retained are to be protected insitu during cleaning.

Removing Biological Growths

Remove biological growths (lichens and mosses) as follows:

- remove as much of the growth as possible with wood or plastic spatula, a soft bronze or nylon bristle brush;
- prepare a solution of quaternary ammonium-based biocide to the manufacturer's specification;
- saturate the affected area with the diluted biocide using a coarse spray nozzle;
- leave the treated area for one week brushing off as much of the dead growth as possible with bristle brushes, making sure that any adjacent gutters are kept clear;

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- prepare a solution of a proprietary biocide based on a quaternary ammonium compound and incorporating tributyl tin oxide or other proven long-lasting biocide to the manufacturer's specification;
- apply the proprietary biocide as for the first application; and
- allow the surface to absorb the proprietary biocide and carry out a second application.

Cleaning water

Water supply: Supply clean, fresh water, non-staining to brickwork, for brickwork cleaning operations including pre-wetting, soaking, washing down and final washing. Use clean water which contains no solvents, chemicals or other admixtures.

Neutrality: Establish the pH of the water before commencing work. If it is below 6.8, include an alkaline additive to increase the pH to 7.2.

Pressure boosting: Provide additional storage capacity and pressure boosting if the required pressure and flow rate are not available on site from mains pressure.

Water pressure: Provide safety devices to ensure that the water temperature does not exceed 55°C at the nozzle.

Filtration: If necessary, filter the cleaning water to remove existing minerals or other substances injurious to brickwork.

Cleaning operations

Sequence: Clean brickwork in a progressive sequence to vertical bays. Start cleaning each bay from the top and work downward to the bottom.

Pre-wetting and soaking: Immediately before cleaning, pre-wet the wall areas to be cleaned, and any masonry areas underneath the areas to be cleaned, using cleaning water applied using spray mist nozzles fixed at appropriate centres and at a uniform distance from the surface.

Scrubbing: Immediately after the soaking period, clean the brickwork by scrubbing, assisted by fine water jets to remove the soiled water and cleaning wastes continuously from the brickwork surface. Repeat the soaking and scrubbing processes until the required final appearance is achieved. Ensure that arrises and joints are not damaged by abrasion.

Scrubbing brushes: Use a soft bronze or nylon bristle brushes. Do not use severely worn brushes.

Washing down: At the completion of the scrubbing process wash the brickwork down using water. Repeat the process until cleaning wastes have been removed. Allow to dry.

Final washing: Immediately before the removal of the scaffold, wash down again with water to remove debris or staining arising from the work.

Detergent cleaning

Detergent: General purpose neutral, non-ionic biodegradable surfactant in the form of a solution diluted with water may only be used with approval of the Heritage Architect.

Methodology

The Brickworker may submit alternative methods of cleaning for approval. Any alternative to this method must be presented to the Heritage Architect for approval as part of the tender in the form of a Work Method Statement. All proposed methods, applications, temperature of agents, spray pressures, dwelling times are to be approved and records to give to the Heritage Architect.

Testing: PH testing to be carried out on completion. Where test results indicate an acidic content, carry out additional water cleaning and retest until a neutral result is obtained.

Allow for inspection by Heritage Architect of cleaning of sample panels and on completion cleaning and prior to leaving the site.

Final washing down and inspection

Wash down facades after the re-pointing process has been completed to remove staining resulting from this process.

After removal of all scaffolding and equipment, the Brickworker shall allow for a final wash down with water at tap pressure to remove any staining or debris arising from the works in this project.

The whole of the works are to be inspected with the Brickworker either on completion or progressively as work is completed to ensure all work is completed as documented.

Cleaning down

On completion of each day's work all brickwork in the immediate vicinity and below shall be adequately cleaned down and protected. All mortar stains shall be washed off the brick no longer than 12 hours after the time of application.

SPECIFICATION**BRICK AND CONCRETE REPAIRS**

4. RENDER AND CONCRETE REPAIR

4.1. GENERAL

Render and concrete repairs shall be undertaken as specified in the following methodology, for areas of:

- cracked and drummy render.
- missing concrete and render,
- previous membrane repair to reinforced concrete,

For the proposed locations of the repair works refer to Apex Diagnostics drawings.

4.2. MATERIALS

- Polymer modified cementitious repair mortar (high build mortar) - Parchem Renderoc HB40 or approved equivalent
- Bonding agent between layers of mortar repair - Parchem Nitobond HAR or approved equivalent
- Epoxy resin primer for steel reinforcement - Parchem Nitoprime Zincrich or approved equivalent
- Concrete patching pin - Helifix PatchPin or approved equivalent.

Product limitations and detailed application procedures shall strictly follow manufacturer's specification.

4.3. METHODOLOGY

All vegetation matter shall be sprayed with weed killer.

Cracked and drummy render

Safely remove defective render and concrete to a clean and stable substrate. Clean the contact surface and ensure surface is free from dust, paint deposits, vegetation material and any loose particles.

Apply the high build mortar with steel trowel in thin layers to a maximum of 5mm per layer. Allow curing time between the multiple layers.

Repaint the render to match existing.

Hairline render cracking to be widened with a surface along the crack saw cut and filled with high build mortar mix. Ensure the saw cut void is clean prior to filling the crack.

Replacement of missing sections of concrete and render

Apply new high build mortar to the clean and stable substrate.

Exposed reinforcement: remove the surrounding concrete further with 25mm clearance behind the bars to ensure good encasement and bonding, expose fully any corroded steel in the repair area and continue along its length until non-corroded steel is reached and continued at least 50mm beyond to show sound rust-free material, remove all loose scale and corrosion deposits of the existing reinforcement. Exposed bars to be brush mechanically cleaned and applied with Nitoprime Zincrich. Allow coating to dry in accordance with the manufacturer's recommendations.

Apply new high build mortar (with Helifix PatchPin reinforcing if depth of patching is greater than 50mm).

Repair of previous membrane repair to reinforced concrete

Remove high-build painted membrane coating to stable concrete substrate. Apply new high build mortar with pin reinforcing as specified. Treat exposed reinforcing bars with zinc-rich primer as specified.

5. RENDER AND CONCRETE CRACK REPAIR

Cracks in concrete and render are to be repaired as specified in the following methodology.

SPECIFICATION**BRICK AND CONCRETE REPAIRS**

5.1. MATERIALS

- Polymer modified cementitious repair mortar - Parchem Renderoc HB40 or approved equivalent
- Bonding agent between layers of mortar repair - Parchem Nitobond HAR or approved equivalent.
- Epoxy adhesive repair paste - Parchem Nitomortar AP or approved equivalent.
- Low viscosity epoxy crack-injection system - Parchem Nitofill LV or approved equivalent.

Product limitations and detailed application procedures shall strictly follow manufacturer's specification.

5.2. METHODOLOGY

- Remove all vegetation and any unsound weathered render at crack locations.
- Locally cut and chase the concrete at least 10mm deep along the cracks.
- If the crack has disappeared during the chasing activity, clean and lightly grind the surface adjacent to the crack prior to repair application to remove any contaminations. Provide Nitobond HAR and Renderoc HB40 to re-patch the location and make good.
- If the crack is still visible, clean the cracks to remove any contamination such as dirt, fine particles and vegetation roots from the cracks. All dust must be removed. Cut a further 10mm deep x 20mm wide V-groove along the crack, fill the V-notch with Nitomortar AP and strike off flush with the surface.
- If the crack is still visible in the V-notch this indicates a deeper crack present, fill V-notch with Nitomortar AP along crack as surface seal. Let the Nitomortar AP set and prepare for the crack injection and apply the Nitofill LV as per manufacturer's instruction.
- If reinforcement is revealed during the repair process, proceed with the repair process as per section 4.3 in this specification.
- Make good on the repair surface and re-render to match existing.

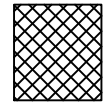
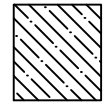
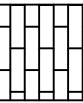
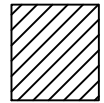

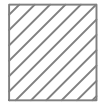

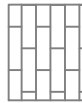

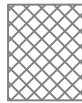
6. STEEL CORROSION TREATMENT

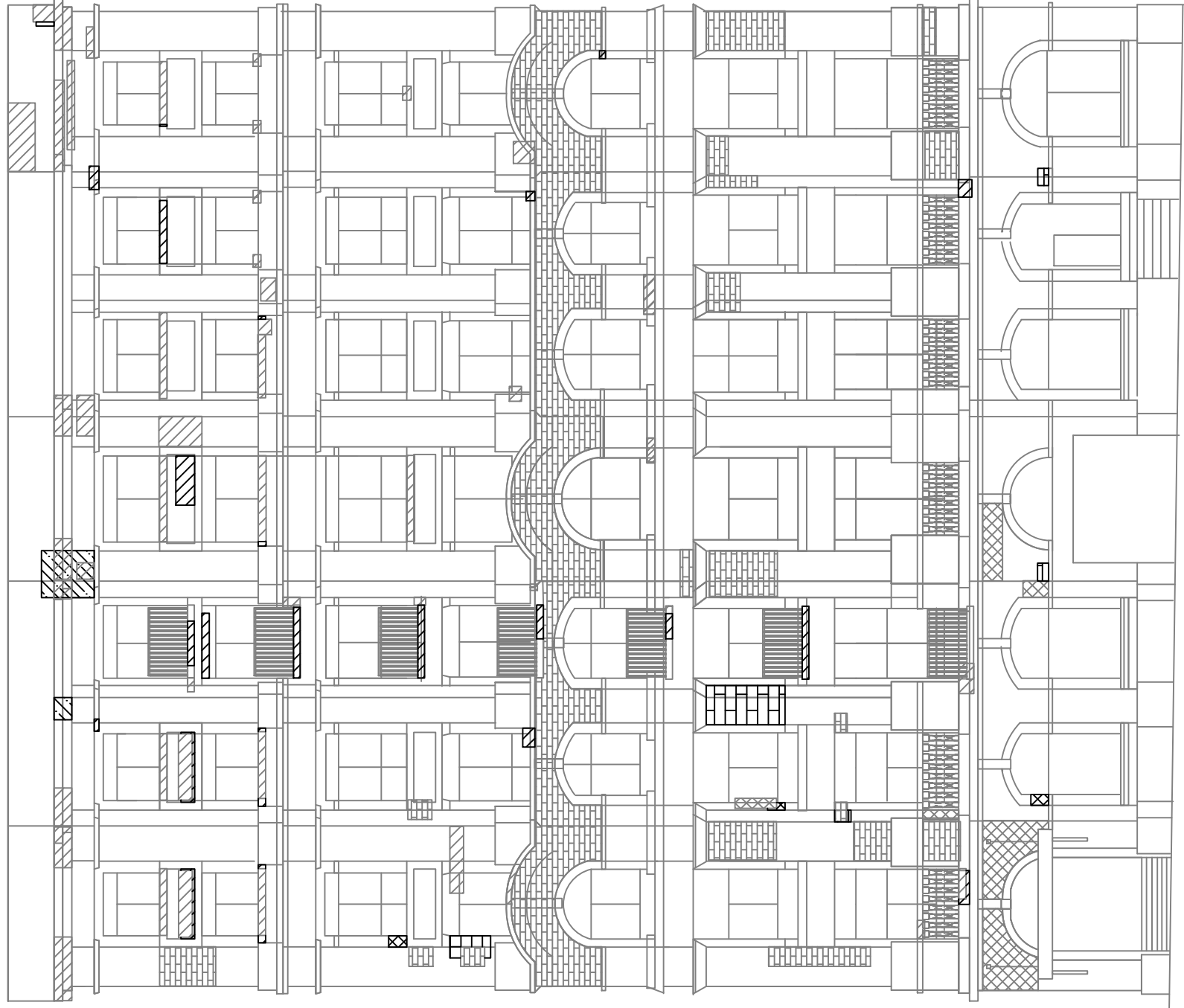
6.1. GENERAL

Areas of corrosion of awning frame and lintel metalwork are to be repaired as specified in the following methodology.

6.2. METHODOLOGY

- Remove oil and grease thoroughly. Mechanically clean exposed metal to remove scale.
- Remove abrasive residue and dust from surface after mechanical clean complete.
- A coat of Resene Armourcote 220 to be applied to cleaned surface. Total dry film thickness to be 75 microns.
- Apply second coating, Resene Armourcote 515, with total dry film thickness of 125 microns.
- Third coating shall be Resene Armourcote 515 with total dry film thickness of 125 microns. The finish colour shall match existing.
- Allow curing overnight between application of each coating. Clean the surface before applying the next coating to avoid contamination.

-  New - Cracking of brickwork
-  New - Crack / Efflorescence
-  New - Re-point
-  New - Cracked/drummy render
-  Awning Corrosion
-  Cracked/drummy render
-  Window frame defect
-  Re-point
-  Embedded Steel
-  Cracking of brickwork



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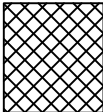
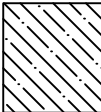
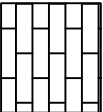
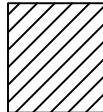

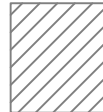
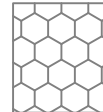
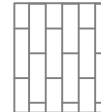
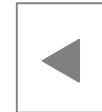
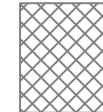
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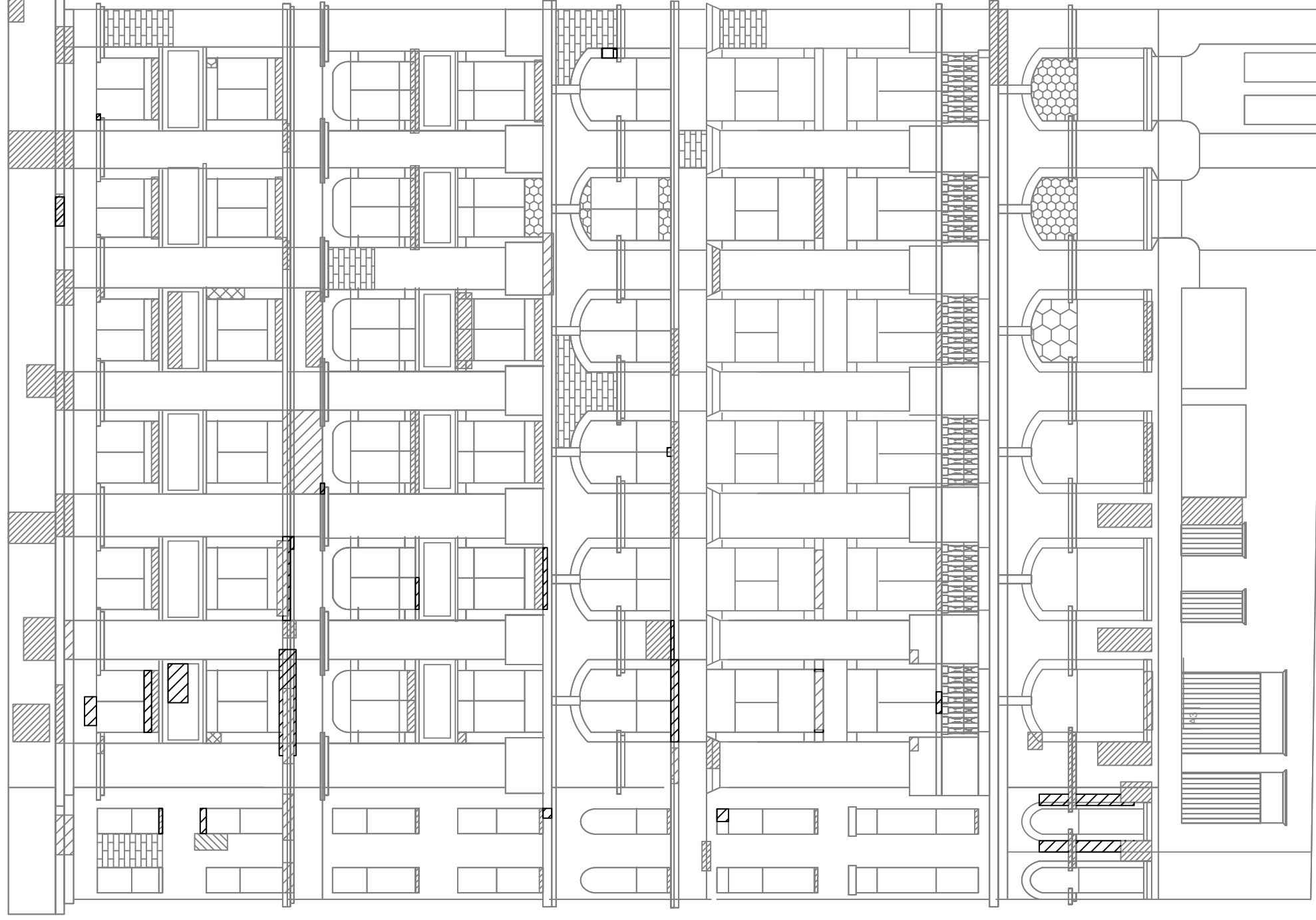
Drawing Title
CLARENCE ST ELEVATION

Scale at A3 ~1:200

Drawing Status
DRAFT

Job No **165/001** Drawing No **D01** Issue **1**

-  New - Cracking of brickwork
-  New - Crack / Efflorescence
-  New - Re-point
-  New - Cracked/drummy render
-  Awning Corrosion
-  Cracked/drummy render
-  Window frame defect
-  Re-point
-  Embedded Steel
-  Cracking of brickwork



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Job Title
BROUGHTON HOUSE, SYDNEY











Drawing Title
KENT ST ELEVATION

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Drawing Status
DRAFT

Job No **165/001** Drawing No **D03** Issue **1**



-  New - Cracking of brickwork
-  New - Crack / Efflorescence
-  New - Re-point
-  New - Cracked/drummy render
-  Awning Corrosion
-  Cracked/drummy render
-  Window frame defect
-  Re-point
-  Embedded Steel
-  Cracking of brickwork

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Job Title
BROUGHTON HOUSE, SYDNEY

Drawing Title
KING ST ELEVATION

Scale at A3 ~1:200

Drawing Status

DRAFT

Job No
165/001

Drawing No
D02

Issue
1