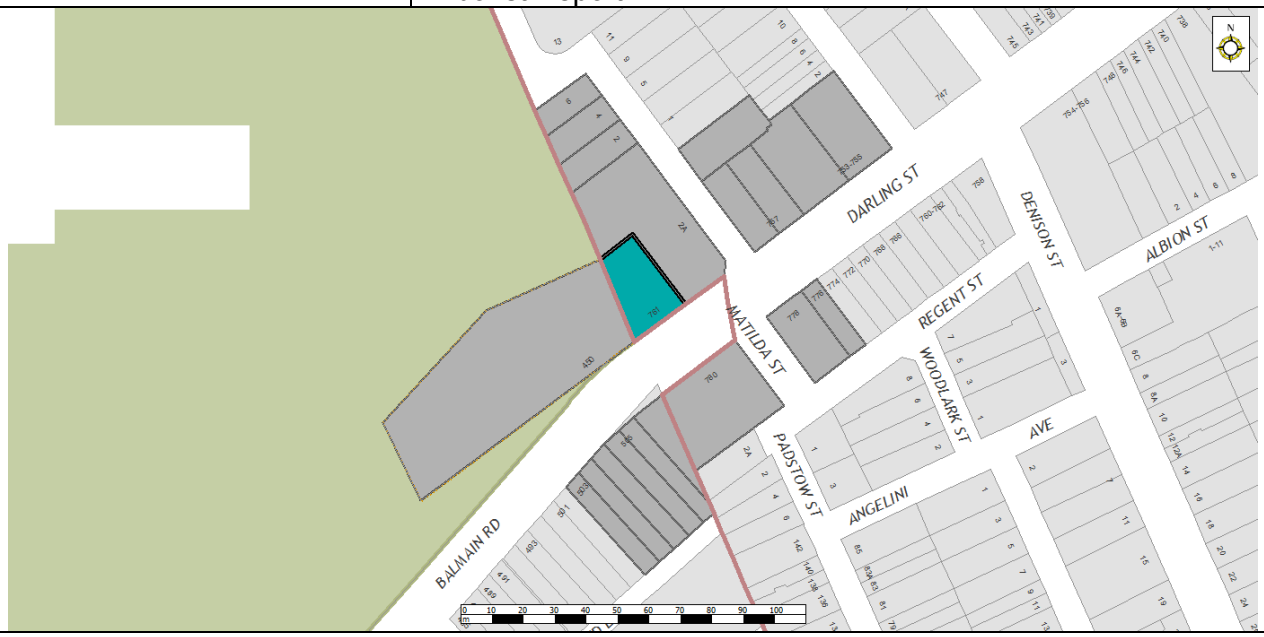
INNER WEST COUNCIL

DEVELOPMENT ASSESSMENT REPORT

Application No.	D/2018/282
Address	761 Darling Street, ROZELLE NSW 2039
Proposal	Ground and first floor alterations and additions to existing office / administration building, including new lift facility to rear.
Date of Lodgement	30 May 2018
Applicant	B Inwood
Owner	Royal Australian and N Z College of Psychiatrists
Number of Submissions	Nil
Value of works	$350,000
Reason for determination at Planning Panel	Pruning of tree on site of heritage item
Main Issues	Tree pruning Car parking
Recommendation	Approval
Attachment A	Recommended conditions of consent
Attachment B	Plans of proposed development
Attachment C	Access Assessment Report
Attachment D	BCA Assessment Report
Attachment E	Arborist Report



LOCALITY MAP

Subject Site		Objectors	
Notified Area		Supporters	

N

1. Executive Summary

This report is an assessment of the application submitted to Council for ground and first floor alterations and additions to an existing office/administration building, including new lift facility to rear at 761 Darling Street, Rozelle. The application was notified to surrounding properties and no submissions were received.

The main issues that have arisen from the application include:

- Pruning of trees in Callan Park;
- Provision of on site car parking.

These issues can be satisfactorily addressed by condition and therefore the application is recommended for approval.

2. Proposal

The proposal upgrades access to the building. The proposed works include:

- Insertion of a lift at the rear of the building;
- Alterations at ground floor level including new store rooms, new office, new kitchen and modified windows/wall covering;
- Enclosure of existing rear balcony at first floor level to enlarge existing meeting room, add accessible WC and new store room.

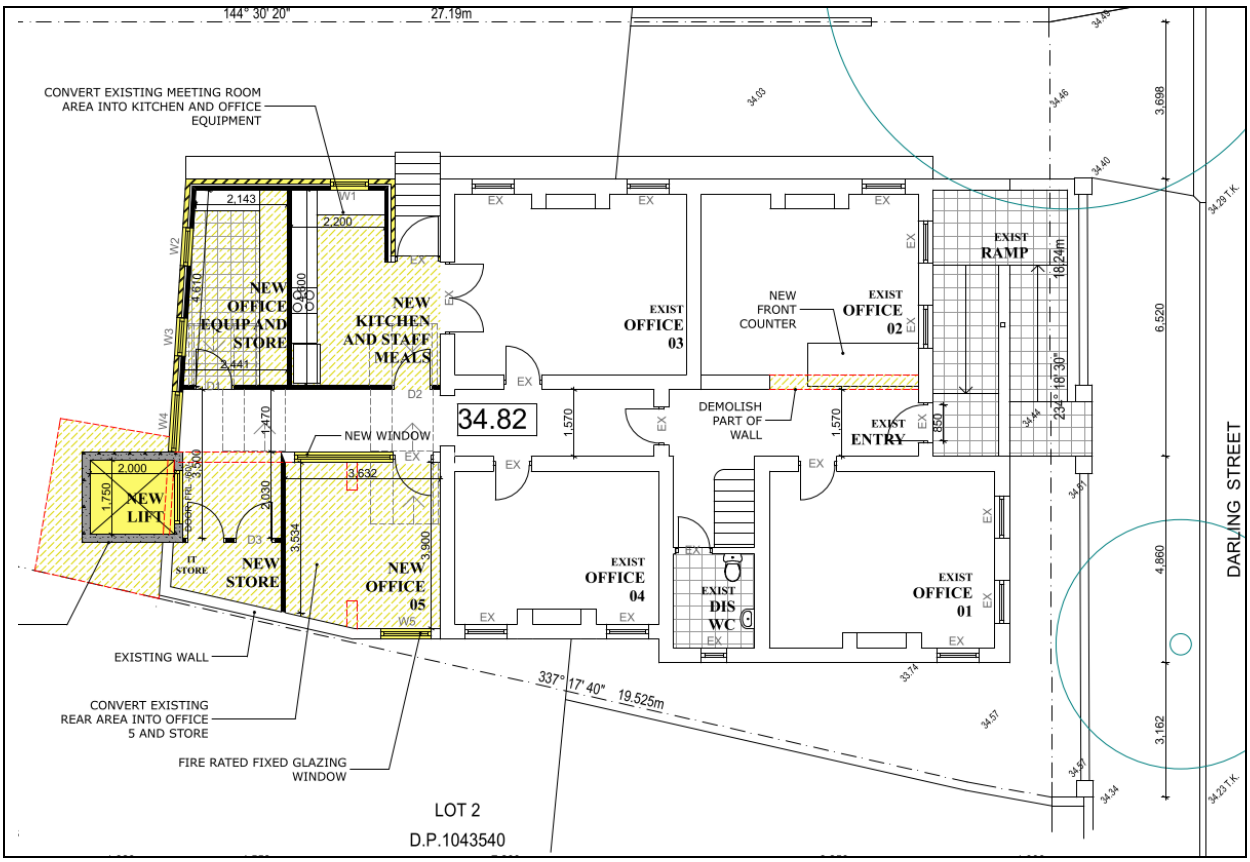


Figure 1: Proposed Ground Floor Plan.

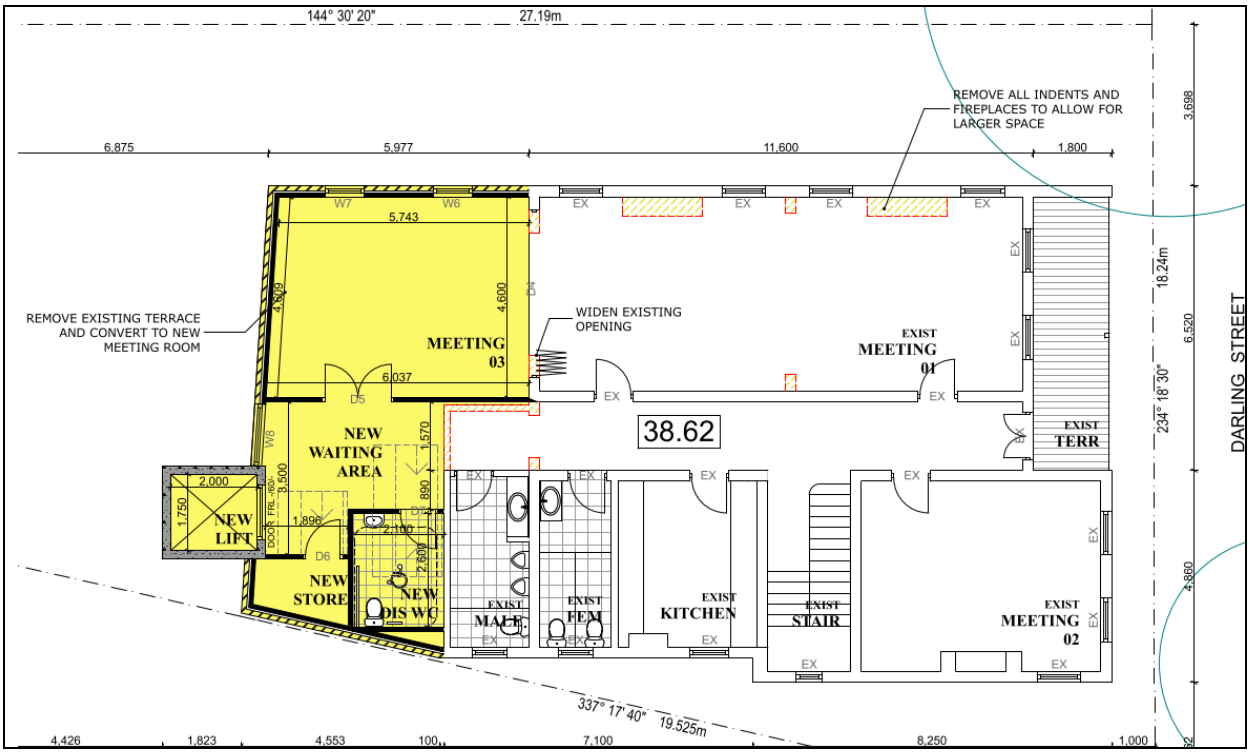


Figure 2: Proposed First floor plan.

Figure 3: Proposed Eastern elevation.

3. Site Description

The subject site is located on the north-western side of Darling Street, between Victoria Road and Callan Park. The site consists of one allotment and is generally trapezoid shaped with a total area of 414.7 sqm and is legally described as Lot 1 DP 702387.

The site has a frontage to Darling Street of 18.24 metres. The site is affected by a number of easements including being burdened by a 2.5m wide right of way and the benefited by an easement to drain water 1m wide. The site has as fall from the front to the rear of approximately 2.25m.

The site supports an existing two-storey; free standing brick building with a metal roof, which was built around the 1880's. The building includes a rear addition which includes a large balcony at first floor level and car parking for two vehicles below the ground floor.

Figure 4: Existing front elevation.

Figure 5: Existing rear elevation, showing lower ground parking area and trees adjoining

The adjoining properties support the Rozelle child care centre which is located within Callan Park immediately to the west. The site to the north and east contains a two storey town house development with two storey commercial/industrial development located on the opposite side of Darling Street.

The size is zoned B2 – Local Centre and adjoins land zoned R1 – General Residential opposite land zoned IN2 – Light Industrial. The subject site is not listed as a heritage item on the Leichhardt LEP 2013 and it is not within a heritage conservation area. It is adjacent to Callan Park which is on the State Heritage Register.

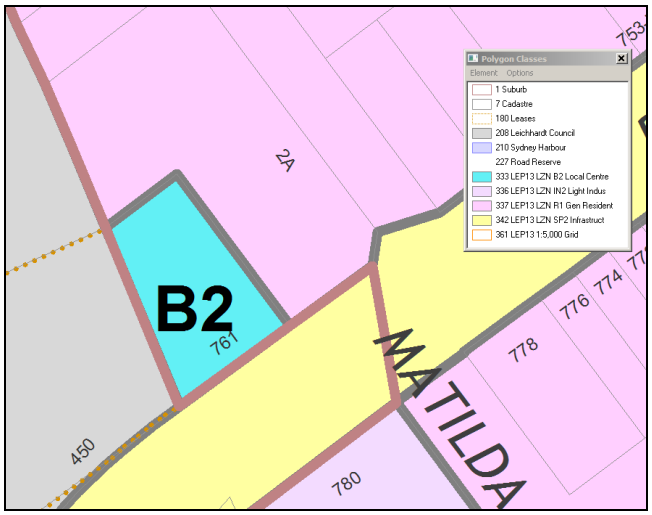


Figure 6: Zoning in vicinity of site.

No trees are located on the site; however the following two trees are located on the adjoining property i.e. Rozelle childcare centre in Callan Park and will be required to be pruned to enable the proposed works to be constructed.

- *Celtis Australia* (Chinese Hackberry)
- *Ficus macrophylla* (Moreton Bay Fig)

4. Background

4(a) Site history

The following section outlines the relevant development history of the subject site and any relevant applications on surrounding properties.

Subject Site

Application	Proposal	Decision & Date
DA4283	Subdivision into two lots comprising 761 Darling Street and 2a Manning Street, Rozelle.	Approved 23/12/1983
DA/1997/543 BA/1997/885	Alterations / Additions Administrative Office	Approved 16/4/1998

4(b) Application history

The following table outlines the relevant history of the subject application.

Date	Discussion / Letter/ Additional Information
21/9/2018	Letter sent to applicant requesting additional information addressing the following matters: i. Owners consent to prune trees in Callan Park ii. Amended arborist report clearly stating that the proposed drainage plan has been considered and providing a pruning specification iii. Clarification of access iv. Car parking.
30/10/2018	Additional information provided. i. While development consent is required to prune less than 10% of a tree on the site of a heritage item, owners consent of the tree

	owner is not required for this amount of pruning. ii. An amended arborist report was submitted clearly referring to the drainage plan and including a pruning specification. iii. The existing ramp to the front door will remain. iv. The site is unable to accommodate additional parking without significant changes to the existing building and the nature of the proposal is unlikely to generate additional parking demand.

5. Assessment

The following is a summary of the assessment of the application in accordance with Section 4.15 of the Environmental Planning and Assessment Act 1979.

5(a) Environmental Planning Instruments

The application has been assessed against the relevant Environmental Planning Instruments listed below:

- State Environmental Planning Policy No 55—Remediation of Land
- State Environmental Planning Policy (Infrastructure) 2007
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Leichhardt Local Environmental Plan 2013

The following provides further discussion of the relevant issues:

5(a)(i) State Environmental Planning Policy No 55—Remediation of Land–

State Environmental Planning Policy No. 55 - Remediation of Land (SEPP 55) provides planning guidelines for remediation of contaminated land. The site has not been used in the past for activities which could have potentially contaminated the site and no change of use is proposed. It is considered that the site will not require remediation in accordance with SEPP 55.

5(a)(ii)State Environmental Planning Policy (Infrastructure) 2007

Development with frontage to classified road (Clause 101)

The site has a frontage to Darling Street, a classified road. Under Clause 101 (2) of State Environmental Planning Policy (Infrastructure) 2007 (SEPP Infrastructure) the consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that the efficiency and operation of the classified road will not be adversely affected by the development. The onsite parking area and access is not altered under the proposal and the works are not expected to increase the number of vehicles accessing the site. The application is considered to be acceptable with regard to Clause 101 of the SEPP Infrastructure.

5(a)(iii) Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

An assessment has been made of the matters set out in Clause 20 of the Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005. It is considered that the carrying out of the proposed development is generally consistent with the objectives of the Plan and would not have an adverse effect on environmental heritage, the visual environmental, the natural environment and open space and recreation facilities:

5(a)(iv) Leichhardt Local Environment Plan 2013 (LLEP 2013)

The application was assessed against the following relevant clauses of the Leichhardt Local Environmental Plan 2013:

- Clause 1.2 – Aims of the Plan
- Clause 2.3 – Zone objectives and Land Use Table
- Clause 2.7 – Demolition Requires Development Consent
- Clause 4.4 – Floor Space Ratio
- Clause 4.5 – Calculation of floor space ratio and site area
- Clause 6.2 – Earthworks
- Clause 6.4 – Stormwater management

The following table provides an assessment of the application against the development standards:

Standard (maximum)	Proposal	Compliance
Floor Space Ratio Maximum permissible 1:1	0.9:1	Yes

5(b) Draft Environmental Planning Instruments

The application has been assessed against the relevant Draft Environmental Planning Instruments listed below:

- Draft State Environmental Planning Policy – Environment

The proposal does not raise any issues with regard to draft State Environmental Planning Policy - Environment.

5(c) Development Control Plans

The application has been assessed and the following provides a summary of the relevant provisions of Leichhardt Development Control Plan 2013.

Part	Compliance
Part A: Introductions	
Section 3 – Notification of Applications	Yes
Part B: Connections	
B1.1 Connections – Objectives	Yes
B2.1 Planning for Active Living	Not applicable
B3.1 Social Impact Assessment	Not applicable
B3.2 Events and Activities in the Public Domain (Special Events)	Not applicable
Part C	
C1.0 General Provisions	Yes
C1.1 Site and Context Analysis	Yes
C1.2 Demolition	Not applicable
C1.3 Alterations and additions	Yes
C1.4 Heritage Conservation Areas and Heritage Items	Not applicable
C1.5 Corner Sites	Not applicable
C1.6 Subdivision	Not applicable
C1.7 Site Facilities	Yes
C1.8 Contamination	Not applicable
C1.9 Safety by Design	Not applicable
C1.10 Equity of Access and Mobility	Yes

C1.11 Parking	No
C1.12 Landscaping	Yes
C1.13 Open Space Design Within the Public Domain	Not applicable
C1.14 Tree Management	Yes
C1.15 Signs and Outdoor Advertising	Not applicable
C1.16 Structures in or over the Public Domain: Balconies, Verandahs and Awnings	Not applicable
C1.17 Minor Architectural Details	Not applicable
C1.18 Laneways	Not applicable
C1.19 Rock Faces, Rocky Outcrops, Cliff Faces, Steep Slopes and Rock Walls	Not applicable
C1.20 Foreshore Land	Not applicable
C1.21 Green Roofs and Green Living Walls	Not applicable
Part C: Place – Section 2 Urban Character	
Suburb Profile	
C2.2.5.3 Callan Park distinctive neighbourhood, Rozelle	Yes
Part C: Place – Section 3 – Residential Provisions	Not applicable
Part C: Place – Section 4 – Non-Residential Provisions	
C4.1 Objectives for Non-Residential Zones	Yes
C4.2 Site Layout and Building Design	Yes
C4.3 Ecologically Sustainable Development	No
C4.4 Elevation and Materials	Yes
C4.5 Interface Amenity	No
C4.6 Shopfronts	Not applicable
C4.7 Bulky Goods Premises	Not applicable
C4.8 Child Care Centres	Not applicable
C4.9 Home Based Business	Not applicable
C4.10 Industrial Development	Not applicable
C4.11 Licensed Premises and Small Bars	Not applicable
C4.12 B7 Business Park Zone	Not applicable
C4.13 Markets	Not applicable
C4.14 Medical Centres	Not applicable
C4.15 Mixed Use	Not applicable
C4.16 Recreational Facility	Not applicable
C4.17 Sex Services Premises	Not applicable
C4.18 Vehicle Sales or Hire Premises And Service Stations	Not applicable
C4.19 Vehicle Repair Station	Not applicable
C4.20 Outdoor Dining Areas	Not applicable
C4.21 Creative Industries	Not applicable
Part D: Energy	
Section 1 – Energy Management	No
Section 2 – Resource Recovery and Waste Management	
D2.1 General Requirements	Yes
D2.2 Demolition and Construction of All Development	Yes
D2.3 Residential Development	Not applicable
D2.4 Non-Residential Development	Yes
D2.5 Mixed Use Development	Not applicable
Part E: Water	
Section 1 – Sustainable Water and Risk Management	
E1.1 Approvals Process and Reports Required With Development	

Applications	
E1.1.1 Water Management Statement	
E1.1.2 Integrated Water Cycle Plan	Not applicable
E1.1.3 Stormwater Drainage Concept Plan	Yes
E1.1.4 Flood Risk Management Report	Not applicable
E1.1.5 Foreshore Risk Management Report	Not applicable
E1.2 Water Management	
E1.2.1 Water Conservation	No
E1.2.2 Managing Stormwater within the Site	Yes
E1.2.3 On-Site Detention of Stormwater	Not applicable
E1.2.4 Stormwater Treatment	Yes
E1.2.5 Water Disposal	Yes
E1.2.6 Building in the vicinity of a Public Drainage System	Not applicable
E1.2.7 Wastewater Management	Yes
E1.3 Hazard Management	Not applicable
E1.3.1 Flood Risk Management	Not applicable
E1.3.2 Foreshore Risk Management	Not applicable
Part F: Food	**Not applicable**
Part G: Site Specific Controls	**Not applicable**

The following provides discussion of the relevant issues:

Part C1.11 - Parking
The current floor area generates a minimum car parking requirement of 3.2 car parking spaces, however only two are provided. As this is rounded up to four as it is not possible to provide a "part" parking space, the site benefits from a parking credit of two car parking spaces. The proposal results in an additional 50 sqm of gross floor area through the enclosure of the existing first floor terrace and addition of a lift. The proposed floor area generates a minimum car parking requirement of 3.7 car parking spaces. After applying the credit of two car parking spaces, there is no requirement for additional parking on the site.

Part C1.1 – Tree Management
The proposal requires pruning of two prescribed trees that are located on the adjoining property i.e. Rozelle childcare centre in Callan Park. Pruning of less than 10% of the crown of Tree 3: *Celtis Australia* (Chinese Hackberry) and less than 5% of the crown of Tree 4: *Ficus macrophylla* (Moreton Bay Fig) is proposed.

Council's Landscape Assessment Officer has advised that no objection is raised to the required pruning subject to the imposition of conditions including submission of additional information prior to the release of the Construction Certificate to clearly identify which branches are to be pruned.

C4.3 Ecologically Sustainable Development / D – Energy - Section 1 – Energy Management / E1.2.1 Water Conservation
Conditions have been imposed to ensure insulation, appropriately sourced timber and water conservation measures are used in accordance with this part. It is noted that the water management statement submitted with the application refers to the use of water efficient taps, toilet suites etc. and this will be reinforced via condition.

C4.5 Interface Amenity
The site adjoins residentially zone land to the north and east however is not separated from this land by a landscaped strip. This is an existing situation and will not be altered by the current proposal.

5(d) The Likely Impacts

The assessment of the Development Application demonstrates that, subject to the recommended conditions, the proposal will have minimal impact in the locality.

5(e) The suitability of the site for the development

The site is zoned B2 – Local Centre. Provided that any adverse effects on adjoining properties are minimised, this site is considered suitable to accommodate the proposed development, and this has been demonstrated in the assessment of the application.

5(f) Any submissions

The application was notified in accordance with Leichhardt Development Control Plan 2013 for a period of 14 days to surrounding properties. No submissions were received in response to notification of the proposal.

5(g) The Public Interest

The public interest is best served by the consistent application of the requirements of the relevant Environmental Planning Instruments, and by Council ensuring that any adverse effects on the surrounding area and the environment are appropriately managed. The proposal is not contrary to the public interest.

6 Referrals

6(a) Internal

The application was referred to the following internal sections/officers and issues raised in those referrals have been discussed in section 5 above.

- Development Engineer – no objection subject to conditions including requirement for additional on-site parking.
- Landscape – No objection subject to conditions to protect affected trees.
- Heritage Officer – No objection to proposal subject to condition ensuring appropriate materials are used.
- Building Surveyor – No objection subject to standard conditions.
- Health – No objection subject to standard conditions.

6(b) External

The application was referred to the following external bodies and issues raised in those referrals have been discussed in section 5 above.

- Sydney Metro – No response was received.

7. Section 7.11 Contributions

The carrying out of the development results in 50 sqm of additional floor area which would result in an increased demand for public amenities and public services within the area. A financial contribution would be required for the development under Leichhardt Section 94 Contributions Plans as follows:

Column A	Column B
Open space and recreation	$1828.98

Community facilities and services	$943.50
Local area traffic management	$122.68
Total Contribution	**$2905.17**

A condition requiring that the contribution be paid will be imposed on any consent granted.

8. Conclusion

The proposal generally complies with the aims, objectives and design parameters contained in Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013. The development will not result in any significant impacts on the amenity of adjoining premises and the streetscape. The application is considered suitable for approval subject to the imposition of appropriate conditions.

9. Recommendation

A. That the Inner West Local Planning Panel exercising the functions of the Council, as the consent authority pursuant to s4.16 of the Environmental Planning and Assessment Act 1979, grant consent to Development Application No: D/2018/282 for ground and first floor alterations and additions to existing office / administration building, including new lift facility to rear at 761 Darling Street, Rozelle subject to the conditions listed in Attachment A below.

Attachment A – Recommended conditions of consent

CONDITIONS OF CONSENT

1. Development must be carried out in accordance with Development Application No. D/2018/282 and the following plans and supplementary documentation, except where amended by the conditions of this consent.

Plan Reference	Drawn By	Dated
Lower ground floor plan 0826-05	Brad Inwood Architects	01.07.17
Ground floor plan 0826-06	Brad Inwood Architects	01.07.17
First floor plan 0826-07	Brad Inwood Architects	01.07.17
Roof plan 0826-08	Brad Inwood Architects	01.07.17
South Elevation 0826-09	Brad Inwood Architects	01.07.17
West Elevation 0826-10	Brad Inwood Architects	01.07.17
East Elevation 0826-11	Brad Inwood Architects	01.07.17
North Elevation 0826-12	Brad Inwood Architects	01.07.17
Section 0826-13	Brad Inwood Architects	01.07.17
Proposed Drainage Plan D001	CW Consultants	18/12/17

Document Title	Prepared By	Dated
Water Management Statement	Brad Inwood Architects	30/5/2018
Waste Management Plan	Brad Inwood Architects	23/12/17
Arboricultural Impact Assessment	The Ents Tree Consultancy	29/10/2018
Building Code of Australia Assessment Report Project No. 2017-0783	AcroCert	5/10/2017
Access Assessment Report Project No. 2017-0783	AcroCert	8/11/2017

In the event of any inconsistency between the approved plans and the conditions, the conditions will prevail.

Where there is an inconsistency between approved elevations and floor plan, the elevation shall prevail.

In the event of any inconsistency between the approved plans and supplementary documentation, the plans will prevail.

The existing elements (walls, floors etc.) shown to be retained on the approved plans shall not be removed, altered or rebuilt without prior consent of the consent authority.

Note: Carrying out of works contrary to the above plans and/ or conditions may invalidate this consent; result in orders, on the spot fines or legal proceedings.

2. Consent is granted for the demolition of the following currently existing on the property, subject to strict compliance with the following conditions:

Elements
Those structures shown dashed red on the approved plans.

a) The adjoining residents must be notified seven (7) working days prior to demolition. Such notification is to be clearly written on A4 size paper giving the date demolition will commence, site contact details/person, elements to be demolished and be placed in the letterbox of every premises (including every residential flat or unit, if any) either side, immediately at the rear of and directly opposite the demolition site.

b) Written notice is to be given to the Principal Certifying Authority for inspection prior to demolition. Such written notice is to include the date when demolition will commence and details of the name, address, business hours and contact telephone number and licence number of the demolisher. The following building inspections must be undertaken by the Principal Certifying Authority:

   i) A *pre commencement* inspection when all the site works are installed on the site and prior to demolition commencing.
   ii) A *final* inspection when the demolition works have been completed.

NOTE: If Council is nominated as your Principal Certifying Authority 24 - 48 hours notice to carry out inspections is required. Arrangement for inspections can be made by phoning 9367 9222.

c) Prior to demolition, the applicant must erect a sign at the front of the property with the demolisher's name, licence number, contact phone number and site address.

d) Prior to demolition, the applicant must erect a 2.4m high temporary fence, hoarding between the work site and any public property (footpaths, roads, reserves etc). Access to the site must be restricted to authorised persons only and the site must be secured against unauthorised entry when work is not in progress or the site is otherwise unoccupied.

e) The demolition plans must be submitted to the appropriate Sydney Water Quick Check agent for a building plan approval.

f) Demolition is to be carried out in accordance with the relevant provisions of Australian Standard 2601:2001: *Demolition of structures.*

g) The hours of demolition work are limited to between 7:00am and 6.00pm on weekdays. No demolition work is to be carried out on Saturdays, Sundays and public holidays.

h) Hazardous or intractable wastes arising from the demolition process must be removed and disposed of in accordance with the requirements of WorkCover New South Wales and the Environmental Protection Authority.

i) Demolition procedures must maximise the reuse and recycling of demolished materials in order to reduce the environmental impacts of waste disposal.

j) During demolition, public property (footpaths, roads, reserves etc) must be clear at all times and must not be obstructed by any demolished material or vehicles. The footpaths and roads must be swept (not hosed) clean of any material, including clay, soil and sand. On the spot fines may be levied by Council against the demolisher and/or owner for failure to comply with this condition.

k) All vehicles leaving the site with demolition materials must have their loads covered and vehicles must not track soil and other materials onto public property (footpaths, roads, reserves etc) and the footpaths must be suitably protected against damage when plant and vehicles access the site.

l) The burning of any demolished material on site is not permitted and offenders will be prosecuted.

m) Care must be taken during demolition to ensure that existing services on the site (ie, sewer, electricity, gas, phone) are not damaged. Any damage caused to

existing services must be repaired by the relevant authority at the applicant's expense. Dial before you dig www.1100.com.au should be contacted prior to works commencing.

n) Suitable erosion and sediment control measures in accordance with the Soil and Water Management Plan must be erected prior to the commencement of demolition works and must be maintained at all times.

o) Prior to demolition, a Work Plan must be prepared and submitted to the Principal Certifying Authority in accordance with the relevant provisions of Australian Standard 2601:2001 *Demolition of structures* by a person with suitable expertise and experience. The Work Plan must identify hazardous materials including surfaces coated with lead paint, method of demolition, the precautions to be employed to minimise any dust nuisance and the disposal methods for hazardous materials.

p) If the property was built prior to 1987 an asbestos survey prepared by a qualified occupational hygienist is to be undertaken. If asbestos is present then:

i) A WorkCover licensed contractor must undertake removal of all asbestos.
ii) During the asbestos removal a sign "DANGER ASBESTOS REMOVAL IN PROGRESS" measuring not less than 400 mm x 300 mm is to be erected in a visible position on the site to the satisfaction of Council.
iii) Waste disposal receipts must be provided to Council / Principal Certifying Authority as proof of correct disposal of asbestos laden waste.
iv) All removal of asbestos must comply with the requirements of WorkCover and Inner West Council.
v) An asbestos clearance certificate prepared by a qualified occupation hygienist must be provided at the completion of the demolition works.

PRIOR TO THE ISSUE OF A CONSTRUCTION CERTIFICATE

3. In accordance with the provisions of the *Environmental Planning and Assessment Act 1979* construction works approved by this consent must not commence until:

a) A Construction Certificate has been issued by Council or an Accredited Certifier. Either Council or an Accredited Certifier can act as the "Principal Certifying Authority."

b) A Principal Certifying Authority has been appointed and Council has been notified in writing of the appointment.

c) At least two days' notice, in writing has been given to Council of the intention to commence work.

The documentation required under this condition must show that the proposal complies with all Development Consent conditions and is not inconsistent with the approved plans, the Building Code of Australia and the relevant Australian Standards.

4. An amended Arboricultural report must be submitted to Council consistent with Council's *Development Fact Sheet* for *Pruning Specifications* which provides clearer photographs to accompany the specifications prior to the release of the Construction Certificate.

5. The recommendations of the approved BCA report and access report shall be shown on the Construction Certificate plans as required works to be undertaken prior to the issue of the construction certificate.

6. The proposed structure(s) to be erected must stand wholly within the boundaries of the subject site. No portion of the proposed structure, including gates and doors during opening and closing operations, shall encroach onto adjoining properties or upon public property.

   To ensure that the location of the building satisfies the provision of the approval, the footings and walls within one (1) metre of the property boundaries must be set out by / pegged out by a registered surveyor in accordance with the approved plans, prior to the issue of a construction certificate.

   To ensure that the location of the building satisfies the provision of the approval, a check survey certificate shall be submitted to the Certifying Authority either prior to the pouring of the ground floor slab or at dampcourse level, whichever is applicable or occurs first, indicating the location of the building with respect to the boundaries of the site.

   Details demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Certifying Authority prior to the issue of any Construction Certificate.

7. Materials and finishes must be complementary to the predominant character and streetscape of the area, and any existing buildings & the period of construction of the buildings. New materials that are not depicted on the approved plans must not be used. Highly reflective wall or roofing materials and glazing must not be used. Materials must be designed so as to not result in glare (maximum normal specular reflectivity of visible light 20%) or that causes any discomfort to pedestrians or neighbouring properties. Details of finished external surface materials, including colours and texture must be provided prior to the issue of a Construction Certificate to the satisfaction of the Principal Certifying Authority.

8. Prior to the issue of a Construction Certificate, the Certifying Authority must be satisfied that all outdoor lighting is designed and positioned to minimise any detrimental impact upon the amenity of other premises and adjacent dwellings and that the outdoor lighting complies with the relevant provisions of Australian Standard AS 1158.3:2005 *Pedestrian area (Category P) lighting – Performance and design requirements* and Australian Standard AS 4282:1997 *Control of the obtrusive effects of outdoor lighting.*

9. Prior to the issue of the Construction Certificate the Principal Certifying Authority is to ensure that the plans state that no high front gutters will be installed.

10. The following requirements are to be detailed on the Construction Certificate plans and provided prior to the issue of a Construction Certificate:

    a) Bulk insulation and reflective insulation shall be incorporated into walls ceilings and roofs to achieve combined ‘R’ value of R2.5 for roofs and ceilings and R1.5 for walls;

    b) Lighter colours are used for external walls consistent with the approved external materials and finishes and plans.

    c) Timber used for building materials shall be sourced from Forest Stewardship Council (FSC) certified plantation or regrowth areas; grown in Australia, or recycled and not sourced from rainforest or old growth forests.

d) Energy efficiency measures to reduce energy consumption are to be implemented in the development including the installation of low energy light bulbs in new rooms.

e) New or altered toilets are to have a flow rate no greater than 4 litres per average flush or a 3 star or better water rating.

f) New or altered taps are to have a flow rate no greater than 9 litres per minute or a 3 star or better water rating.

Details demonstrating compliance are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate.

11. A contribution pursuant to the provisions of Section 7.11 of the *Environmental Planning and Assessment Act 1979* for the services detailed in column A and for the amount detailed in column B must be made to Council prior to the issue of a Construction Certificate:

Column A	**Column B**
Open space and recreation	$1828.98
Community facilities and services	$943.50
Local area traffic management	$122.68
Total Contribution	**$2905.17**

Payment will only be accepted in the form of cash, bank cheque or EFTPOS / Credit Card (to a maximum of $10,000). It should be noted that personal cheques or bank guarantees cannot be accepted for Section 7.11 Contributions. Contribution Plans may be inspected on Council's website www.innerwest.nsw.gov.au or a copy purchased at the Customer Service counter in Council's Administration Centre, 7-15 Wetherill Street, Leichhardt, during business hours.

A receipt demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Certifying Authority prior to the issue of any Construction Certificate.

12. Before the issue of a Construction Certificate, the Principal Certifying Authority shall be satisfied that no proposed underground services (i.e. water, sewerage, drainage, gas or other service) unless previously approved by conditions of consent, are located beneath the canopy of any tree protected under Clause 5.9 of Leichhardt Local Environmental Plan 2013, located on the subject allotment and adjoining allotments.

A plan detailing the routes of these services and trees protected under the Local Environment Plan 2013 shall be prepared. Details demonstrating compliance are to be shown on the plans submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate.

13. A Certificate prepared by an appropriately qualified and practising structural engineer, certifying the structural adequacy of the property and its ability to withstand the proposed additional, or altered structural loads during all stages of construction must be provided prior to the issue of a Construction Certificate to the satisfaction of the Principal Certifying Authority. The certificate shall also include all details of the methodology to be employed in construction phases to achieve the above requirements without result in demolition of elements marked on the approved plans for retention.

Details demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Certifying Authority prior to the issue of any Construction Certificate.

14. All plant and associated equipment must be located within the approved building envelope and is not be located on the roof. Details on the location of all plant and equipment must be consistent with the approved plans and provided prior to the issue of a Construction Certificate.

    Details demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Certifying Authority prior to the issue of any Construction Certificate.

15. The approved plans must be checked online with Sydney Water Tap In to determine whether the development will affect Sydney Water's sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met. A copy of this approval must be supplied with the Construction Certificate application. Please refer to the web site http://www.sydneywater.com.au/tapin/index.htm for details on the process or telephone 132092.

    The Certifying Authority must ensure that the appropriate approval has been provided prior to the issue of a Construction Certificate.

16. Where it is proposed to occupy or carry out works on public roads or Council controlled lands, the person acting on this consent shall obtain all applicable Permits from Council in accordance with Section 68 (Approvals) of the Local Government Act 1993 and/or Section 138 of the Roads Act 1993. Permits are required for the following activities:

    a) Work zone (designated parking for construction vehicles). Note that a minimum of 2 months should be allowed for the processing of a Work Zone application.

    b) A concrete pump across the roadway/footpath

    c) Mobile crane or any standing plant

    d) Skip bins

    e) Scaffolding/Hoardings (fencing on public land)

    f) Public domain works including vehicle crossing, kerb & guttering, footpath, stormwater, etc.

    g) Awning or street verandah over footpath

    h) Partial or full road closure

    i) Installation or replacement of private stormwater drain, utility service or water supply

    Contact Council's Road Access team to ensure the correct Permit applications are made for the various activities.

    Applications for such Permits shall be submitted and approved by Council prior to the commencement of the works associated with such activity or issue of the Construction Certificate (whichever occurs first). Details demonstrating compliance with the

requirements of this condition are to be submitted to the satisfaction of the Principal Certifying Authority prior to the issue of any Construction Certificate.

17. The person acting on this consent shall submit to the Principal Certifying Authority a dilapidation report including colour photos showing the existing condition of the footpath and roadway adjacent to the site before the issue of a Construction Certificate.

18. Stormwater runoff from pervious and impervious areas of the development site shall be collected and discharged by means of a gravity pipe system to the street gutter. Drainage plans prepared by CW Consultants are acceptable as Stormwater Drainage Concept Plan (SDCP). The following details must be submitted to Council before the issue of a construction certificate:

    a. Diameter of drainage pipes collecting and discharging stormwater runoff from the development site.

19. Pursuant to Clause 94 of the Environmental Planning & Assessment Regulation 2000, the consent authority has undertaken an assessment of the development proposal and requires the building to be upgraded as the measures within the building are inadequate for:

    a) Protecting users of the building in the event of fire.

    b) Facilitating egress from the building in the event of fire.

    c) Restricting the spread of fire from the building to other buildings nearby.

    In such circumstances, the consent authority is to take into consideration whether it would be appropriate to require the existing building to be brought into total or partial conformity with the BCA Vol 1.

    Due to the extent of proposed works it is appropriate to ensure the development be brought into partial conformity with the BCA.

    The following fire safety and upgrade works are required:The recommendations of the BCA report/ fire safety audit which shall cover Sections C, D and E of Building Code of Australia and to identify general areas of non-compliance and address the performance requirements of the BCA to be included as part of the documentation for the construction certificate documentation.The recommendations shall be indicated on plans and the audit submitted to the Principal Certifying Authority as part of the Construction Certificate application.

    The applicant is required to provide Council with either:

    - A list of current essential fire safety measures installed throughout the building, or;
    - A current Annual Fire Safety Statement for the building.

20. Any air conditioning unit on the site must be installed and operated at all times so as not to cause “Offensive Noise” as defined by the Protection of the Environment (Operations) Act 1997.

    The system/s shall be operated as follows:

    a) Domestic air conditioners must not be audible in nearby dwellings between:

        i) 10:00pm to 7:00am on Monday to Saturday: and
        ii) 10:00pm to 8:00am on Sundays and Public Holidays.

b) At any other time the systems and associated equipment shall not give rise to a sound pressure level at any affected premises that exceeds the background $L_{A90, 15min}$ noise level, measured in the absence of the noise source/s under consideration by 5dB(A).

The source noise level shall be assessed as an $L_{Aeq, 15min}$ and adjusted in accordance with the NSW Environment Protection Authority's Industrial Noise Policy and Environmental Noise Control Manual (sleep disturbance).

Air conditioning units must be installed in accordance with plans referenced in condition 1 or to satisfy provisions of the State Environmental Planning Policy (Exempt & Complying Codes) 2008.

Details demonstrating compliance with the requirements of this condition and the acoustic measures to be employed to achieve compliance with this condition are to be submitted for approval to the Principal Certifying Authority prior to the issue of any Construction Certificate.

21. In accordance with Section 34 of the *Building and Construction Industry Long Service Payments Act 1986,* the applicant must pay a long service levy at the prescribed rate of 0.35% of the total cost of the work to either the Long Service Payments Corporation or Council for any work costing $25,000 or more. The Long Service Levy is payable prior to the issue of a Construction Certificate.

Details demonstrating compliance are to be shown on the plans submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate

PRIOR TO WORKS COMMENCING OR ISSUE OF A CONSTRUCTION CERTIFICATE (WHICHEVER OCCURS FIRST)

22. Prior to the commencement of demolition works or a Construction Certificate being issued for works approved by this development consent (whichever occurs first), a security deposit and inspection fee must be paid to Council to cover the cost of making good any damage caused to any Council property or the physical environment as a consequence of carrying out the works and as surety for the proper completion of any road, footpath and drainage works required by this consent.

Security Deposit (FOOT)	$5,328.80
Inspection fee (FOOTI)	$230.65

Payment will be accepted in the form of cash, bank cheque, EFTPOS/credit card (to a maximum of $10,000) or bank guarantee. Bank Guarantees must not have an expiry date.

The inspection fee is required for Council to determine the condition of the adjacent road reserve and footpath prior to and on completion of the works being carried out.

Should any of Council's property and/or the physical environment sustain damage during the course of the demolition or construction works, or if the works put Council's assets or the environment at risk, or if any road, footpath or drainage works required by this consent are not completed satisfactorily, Council may carry out any works necessary to repair the damage, remove the risk or complete the works. Council may utilise part or all of the security deposit to restore any damages, and Council may recover, in any court of competent jurisdiction, any costs to Council for such restorations.

A request for release of the security may be made to the Council after all construction work has been completed and a final Occupation Certificate issued.

The amount nominated is only current for the financial year in which the consent was issued and is revised each financial year. The amount payable must be consistent with Council's Fees and Charges in force at the date of payment.

Requirements of this condition are to be met prior to works commencing or prior to release of a Construction Certificate (whichever occurs first). Details demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Principal Certifying Authority prior to the issue of any Construction Certificate.

23. The appointed Project Arborist must oversee the above pruning works as well as any excavation within the TPZ of trees to be retained on site and adjoining properties. The Arborist must document and submit evidence of any roots severed that are greater than 50mm, in diameter to both the PCA and Council prior to works commencing.

PRIOR TO THE COMMENCEMENT OF WORKS

24. At least forty-eight (48) hours prior to the commencement of works, a notice of commencement form (available on Council's web page) and details of the appointed Principal Certifying Authority shall be submitted to Council.

25. Dial Before You Dig
Underground assets may exist in the area that is subject to the approved development. In the interests of health and safety and in order to protect damage to third party assets contact Dial Before You Dig at www.1100.com.au or telephone on 1100 prior to works commencing. It is the individual's responsibility to anticipate and request the nominal location of plant or assets on the relevant property via contacting the Dial Before You Dig service in advance of any construction. Care must be taken to ensure any identified assets are protected accordingly.

If the development is likely to disturb or impact upon telecommunications infrastructure, written confirmation from the service provider that they have agreed to the proposed works must be submitted to the Principal Certifying Authority prior to the issue of a Construction Certificate or any works commencing, whichever occurs first.

26. Prior to the commencement of works, a sign must be erected in a prominent position on the site (for members of the public to view) on which the proposal is being carried out. The sign must state:

a) Unauthorised entry to the work site is prohibited.

b) The name of the principal contractor (or person in charge of the site) and a telephone number at which that person may be contacted at any time for business purposes and outside working hours.

c) The name, address and telephone number of the Principal Certifying Authority for the work.

Any such sign must be maintained while the work is being carried out, but must be removed when the work has been completed.

Photographic evidence demonstrating compliance with the requirements of this condition is to be submitted to the satisfaction of the Principal Certifying Authority and Council for records purposes prior to the commencement of any onsite work.

27. Any person acting on this consent or any contractors carrying out works on public roads or Council controlled lands shall take out Public Liability Insurance with a minimum cover of twenty (20) million dollars in relation to the occupation of, and approved works within those lands. The Policy is to note, and provide protection for Inner West Council, as an interested party and a copy of the Policy must be submitted to Council prior to commencement of the works. The Policy must be valid for the entire period that the works are being undertaken on public property.

28. An Asbestos Survey prepared by a suitably qualified Occupational Hygienist shall be prepared for the premises. The Survey is to incorporate appropriate Asbestos removal and disposal methods in accordance with the requirements of WorkCover NSW, NSW Environmental Planning and Assessment Amendment (Asbestos) Regulation 2009 and NSW Environment Protection Authority, Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)] and conditions of this consent.

    A copy of any WorkCover approval documents is to be included as part of the documentation.

    Details demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Principal Certifying Authority prior to any works on site commencing or the issue of the Construction Certificate (whichever occurs first).

DURING WORKS

29. Vibration caused by excavation and construction at any residence or structure outside the site must be limited to:

    a) for structural damage vibration, German Standard DIN 4150 Part 3 Structural Vibration in Buildings. Effects on Structures; and

    b) for human exposure to vibration, the evaluation criteria set out in the Environmental Noise Management Assessing Vibration: a Technical Guideline (Department of Environment and Conservation, 2006).

    Vibratory compactors must not be used in the vicinity of residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified above.

30. Noise arising from the works must be controlled in accordance with the requirements of the *Protection of the Environment Operations Act 1997* and guidelines contained in the New South Wales Environment Protection Authority Environmental Noise Control Manual.

31. All excavations and backfilling associated with the development must be executed safely, properly guarded and protected to prevent them from being dangerous to life or property and in accordance with the design of a suitably qualified structural engineer.

    If excavation extends below the level of the base of the footings of a building on an adjoining allotment of land, the person causing the excavation must:

    a) Preserve and protect the building from damage.

    b) If necessary, underpin and support the building in an approved manner.

    c) Give at least seven (7) days notice to the adjoining owner before excavating, of the intention to excavate within the proximity of the respective boundary.

Any proposed method of support to any excavation adjacent to adjoining properties or any underpinning is to be designed by a Chartered Civil Engineer, with National Professional Engineering Registration (NPER) in the construction of civil/structural works. Copies of the design plans must be provided to the relevant adjoining property owner/s prior to commencement of such works. Prior to backfilling, any method of support constructed must be inspected by the designing Engineer with certification provided to all relevant parties.

32. Building materials and machinery are to be located wholly on site unless separate consent (Standing Plant Permit) is obtained from Council/ the roads authority. Building work is not to be carried out on the footpath.

    Construction materials and vehicles shall not block or impede public use of the footpath or roadway.

33. The site must be appropriately secured and fenced at all times during works.

34. In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the demolition, construction or operation/use of the development.

35. Any new information revealed during development works that has the potential to alter previous conclusions about site contamination or hazardous materials shall be immediately notified to the Council and the Principal Certifying Authority.

36. A copy of the approved plans and this consent must be kept on site for the duration of site works and in the case of any commercial or industrial premise for the duration of the use/trading. Copies shall be made available to Council Officer's upon request.

37. No trees on public property (footpaths, roads, reserves etc.) are to be removed or damaged during works unless specifically approved in this consent or marked on the approved plans for removal.

    Prescribed trees protected by Council's controls on the subject property and/or any vegetation on surrounding properties must not be damaged or removed during works unless specific approval has been provided under this consent.

38. Construction material and vehicles shall not block or impede public use of footpaths or roadways.

39. If tree roots are required to be severed for the purposes of constructing the approved works, they shall be cut cleanly using a sharp and 'fit for purpose' tool. The pruning shall be undertaken by an experienced Arborist with a minimum qualification of AQF (Australian Qualification Framework) Level 3 in Arboriculture.

    Details demonstrating compliance with the requirements of this condition are to be submitted by the Arborist undertaking the works to the satisfaction of the Principal Certifying Authority.

40. Canopy and/or root pruning of the following tree(s) which is necessary to accommodate the approved building works shall be undertaken by, or supervised by, an experienced Arborist – for the purpose of this condition a suitably qualified professional shall have as a minimum, Level 5 (Diploma) certification in Arboriculture under the Australian Qualification Framework (AQF).

Schedule

Tree/location	Approved works
Chinese Hackberry (Celtis australis)	450 Balmain Road, Rozelle
Moreton Bay Fig (Ficus macrophylla)	450 Balmain Road, Rozelle

Pruning is limited to those branches specified in the approved Arboricultural report. All pruning shall be carried out to sections 5, 6 and 7.3.3 of the Australian Standard *4373 - 2007 Pruning of Amenity Trees*.

Where a tree's canopy or root system has developed across property boundaries, consent to undertake works on the tree does not permit a person acting on the consent to trespass on adjacent lands. Where access to adjacent land is required to carry out approved tree works, Council advises that the owners consent must be sought. Notification is the responsibility of the person acting on the consent. Should the tree owner/s refuse access to their land, the person acting on the consent shall meet the requirements of the *Access To Neighbouring Lands Act 2000* to seek access.

Details demonstrating compliance with the requirements of this condition are to be submitted by the Arborist undertaking the works to the satisfaction of the Principal Certifying Authority.

41. The applicant must engage the services of an AQF level 5 Project Arborist to ensure all tree protection measures are implemented in accordance with sections 4 and 5 of the amended *Arboricultural Impact Assessment Report*, prepared by *The Ents Tree Consultancy*, dated 29/10/2018.

42. No activities, storage or disposal of materials taking place beneath the canopy of any tree protected under Council's Tree Preservation Order at any time.

43. Any new information revealed during development works that has the potential to alter previous conclusions about site contamination or hazardous materials shall be immediately notified to the Council and the Principal Certifying Authority.

44. Unless otherwise approved by Council, excavation, demolition, construction or subdivision work shall only be permitted during the following hours:

    a) 7:00 am to 6.00 pm, Mondays to Fridays, inclusive (with demolition works finishing at 5pm);

    b) 8:00 am to 1:00 pm on Saturdays with no demolition works occurring during this time; and

    c) at no time on Sundays or public holidays.

    Works may be undertaken outside these hours where they do not create any nuisance to neighbouring properties in terms of dust, noise, vibration etc and do not entail the use of power tools, hammers etc. This may include but is not limited to painting.

    In the case that a standing plant or special permit is obtained from Council for works in association with this development, the works which are the subject of the permit may be carried out outside these hours.

    This condition does not apply in the event of a direction from police or other relevant authority for safety reasons, to prevent risk to life or environmental harm.

    Activities generating noise levels greater than 75dB(A) such as rock breaking, rock hammering, sheet piling and pile driving shall be limited to:

8:00 am to 12:00 pm, Monday to Saturday; and
2:00 pm to 5:00 pm Monday to Friday.

The Proponent shall not undertake such activities for more than three continuous hours and shall provide a minimum of one 2 hour respite period between any two periods of such works.

"Continuous" means any period during which there is less than an uninterrupted 60 minute respite period between temporarily halting and recommencing any of that intrusively noisy work.

Noise arising from the works must be controlled in accordance with the requirements of the *Protection of the Environment Operations Act 1997* and guidelines contained in the New South Wales Environment Protection Authority Environmental Noise Control Manual.

45. The development site must be inspected at the following stages during construction:

a) after the commencement of the excavation for, and before the placement of, the first footing.

b) prior to covering any stormwater drainage connections, and

c) after the building work has been completed and prior to any occupation certificate being issued in relation to the building.

PRIOR TO THE ISSUE OF AN OCCUPATION CERITFICATE

46. An Occupation Certificate must be obtained prior to any use or occupation of the development or part thereof. The Principal Certifying Authority must ensure that all works are completed in accordance with this consent including all conditions.

47. Prior to the issue of the Occupation Certificate the Principal Certifying Authority is to confirm that no high front gutters have been installed.

48. A street number must be clearly displayed at the ground level frontage of the building prior to the issue of an Occupation Certificate. A separate application must be made to Council if new street numbers or a change to street numbers is required.

Details demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Principal Certifying Authority prior to the issuing of any Occupation Certificate.

49. You are advised that Council has not undertaken a search of existing or proposed utility services adjacent to the site in determining this application. It is responsibility of applicant's contractor to verify location of the utility services with the relevant service authority. Any adjustment or augmentation of any public utility services including Gas, Water, Sewer, Electricity, Street lighting and Telecommunications required as a result of the development shall be at no cost to Council and undertaken before the issue of an Occupation Certificate.

50. The sand stone kerb adjacent to the site is of local heritage value and is to be preserved at no cost to Council. Any damage to the stone kerb will require the replacement of the damaged individual stone units before the issue of the Occupation Certificate.

51. A report prepared by a suitably qualified and experienced acoustic consultant shall be submitted to Council prior to an Occupation Certificate being issued for the development which demonstrates and certifies that noise and vibration emissions from the development comply with the relevant provisions of the *Protection of the Environment Operations Act 1997*, NSW Environment Protection Authority's Industrial Noise Policy and Noise Control Manual and conditions of Council's approval, including any recommendations of the acoustic report referenced in the conditions of the approval.

    Details demonstrating compliance with the requirements of this condition is to be submitted to the satisfaction of the Principal Certifying Authority prior to the issue of any Occupation Certificate.

52. Any soil proposed to be disposed off site must be classified, removed and disposed of in accordance with the *EPA Environmental Guidelines; Assessment, Classification and Management of Liquid and Non-Liquid Wastes 1999* and the *Protection of the Environmental Operations Act 1997.*

    Details demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Principal Certifying Authority prior to the issue of any Occupation Certificate.

53. Provision must be maintained for access to and within the building on the site for persons with a disability in accordance with the provisions of Australian Standard AS 1428.1:2001 *Design for access and mobility – General requirements for access – new building work* prior to the issue of an Occupation Certificate.

54. All letter boxes must be constructed and located in accordance with the relevant provisions of Australian Standard AS/NZS 4253:1994 *Mailboxes* and to Australia Post's satisfaction. Work is to be completed prior to the issue of any Occupation Certificate.

    Details demonstrating compliance with the requirements of this condition are to be submitted to the satisfaction of the Principal Certifying Authority prior to the issuing of any Occupation Certificate.

ONGOING CONDITIONS OF CONSENT

55. The use of the premises shall not give rise to an environmental health nuisance to the adjoining or nearby premises and environment. There are to be no emissions or discharges from the premises, which will give rise to a public nuisance or result in an offence under the Protection of the Environment Operations Act 1997 and Regulations. The use of the premises and the operation of plant and equipment shall not give rise to the transmission of a vibration nuisance or damage other premises.

56. The use of the premises and the operation of plant and equipment shall not give rise to the transmission of a vibration nuisance or damage to other premises as defined in the Environment Protection Authority's Technical Guidelines for Assessing Vibration.

PRESCRIBED CONDITIONS

A. BASIX Commitments

Under clause 97A of the Environmental Planning & Assessment Regulation 2000, it is a condition of this development consent that all the commitments listed in each relevant BASIX Certificate for the development are fulfilled. The Certifying Authority must ensure that the building plans and specifications submitted by the Applicant,

referenced on and accompanying the issued Construction Certificate, fully satisfy the requirements of this condition.
In this condition:

a) Relevant BASIX Certificate means:

i) a BASIX Certificate that was applicable to the development when this development consent was granted (or, if the development consent is modified under section 4.55 of the Act, a BASIX Certificate that is applicable to the development when this development consent is modified); or
ii) if a replacement BASIX Certificate accompanies any subsequent application for a construction certificate, the replacement BASIX Certificate; and

b) BASIX Certificate has the meaning given to that term in the Environmental Planning & Assessment Regulation 2000.

B. Building Code of Australia

All building work must be carried out in accordance with the provisions of the Building Code of Australia.

C. Home Building Act

1) Building work that involves residential building work (within the meaning and exemptions provided in the Home Building Act 1989) must not be carried out unless the Principal Certifying Authority for the development to which the work relates has given Inner West Council written notice of the following:

a) in the case of work for which a principal contractor is required to be appointed:

i) the name and licence number of the principal contractor, and
ii) the name of the insurer by which the work is insured under Part 6 of that Act, or

b) in the case of work to be done by an owner-builder:

i) the name of the owner-builder, and
ii) if the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

2) If arrangements for doing residential building work are changed while the work is in progress so that the information submitted to Council is out of date, further work must not be carried out unless the Principal Certifying Authority for the development to which the work relates (not being the Council), has given the Council written notice of the updated information.

Note: A certificate purporting to be issued by an approved insurer under Part 6 of the Home Building Act 1989 that states that a person is the holder of an insurance policy issued for the purposes of that Part is, for the purposes of this clause, sufficient evidence that the person has complied with the requirements of that Part.

D. Site Sign

1) A sign must be erected in a prominent position on any work site on which work involved in the erection or demolition of a building is being carried out:

   a) stating that unauthorised entry to the work site is prohibited;

   b) showing the name of the principal contractor (or person in charge of the work site), and a telephone number at which that person may be contacted at any time for business purposes and outside working hours; and

   c) showing the name, address and telephone number of the Principal Certifying Authority for the work.

2) Any such sign must be maintained while to building work or demolition work is being carried out, but must be removed when the work has been completed.

E. Condition relating to shoring and adequacy of adjoining property

1) For the purposes of section 4.17(11) of the Act, it is a prescribed condition of development consent that if the development involves an excavation that extends below the level of the base of the footings of a building on adjoining land, the person having the benefit of the development consent must, at the person's own expense:

   a) protect and support the adjoining premises from possible damage from the excavation, and

   b) where necessary, underpin the adjoining premises to prevent any such damage.

2) The condition referred to in subclause (1) does not apply if the person having the benefit of the development consent owns the adjoining land or the owner of the adjoining land has given consent in writing to that condition not applying.

NOTES

1. This Determination Notice operates or becomes effective from the endorsed date of consent.

2. Section 8.2 of the *Environmental Planning and Assessment Act 1979* provides for an applicant to request Council to review its determination. This does not apply to applications made on behalf of the Crown, designated development or a complying development certificate. The request for review must be made within six (6) months of the date of determination or prior to an appeal being heard by the Land and Environment Court. Furthermore, Council has no power to determine a review after the expiration of these periods. A decision on a review may not be further reviewed under Section 8.2.

3. If you are unsatisfied with this determination, Section 8.7 of *the Environmental Planning and Assessment Act 1979* gives you the right of appeal to the Land and Environment Court within six (6) months of the determination date.

4. Failure to comply with the relevant provisions of *the Environmental Planning and Assessment Act 1979* and/or the conditions of this consent may result in the serving of penalty notices or legal action.

5. Works or activities other than those approved by this Development Consent will require the submission of a new development application or an application to modify

the consent under Section 4.55 of the *Environmental Planning and Assessment Act 1979.*

6. This decision does not ensure compliance with the *Disability Discrimination Act 1992.* Applicants should investigate their potential for liability under that Act.

7. This development consent does not remove the need to obtain any other statutory consent or approval necessary under any other Act, such as (if necessary):

   a) Application for any activity under that Act, including any erection of a hoarding.

   b) Application for a Construction Certificate under the *Environmental Planning and Assessment Act 1979.*

   c) Application for an Occupation Certificate under the *Environmental Planning and Assessment Act 1979.*

   d) Development Application for demolition if demolition is not approved by this consent.

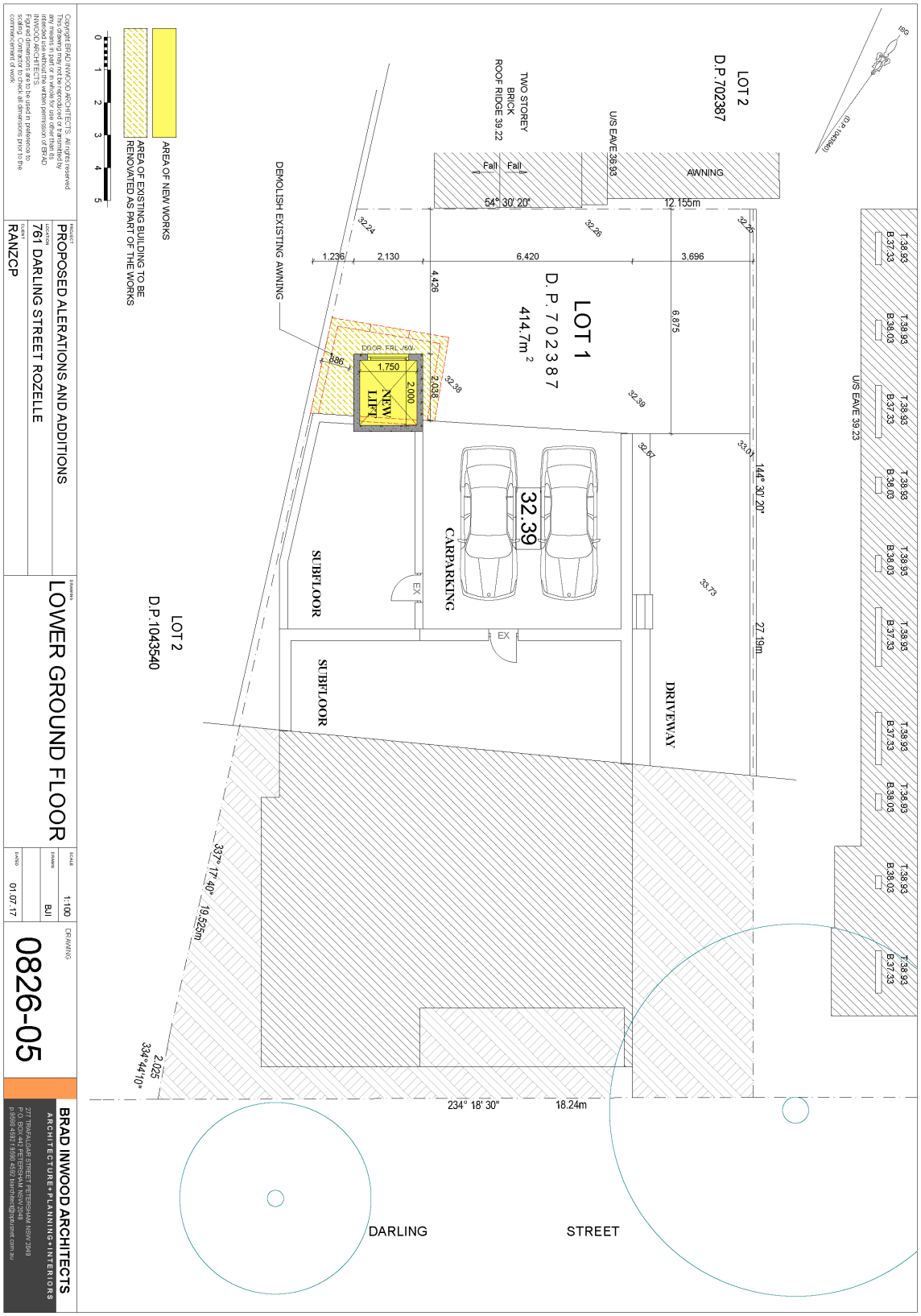
   e) An application under the Roads Act 1993 for any footpath / public road occupation. A lease fee is payable for all occupations.

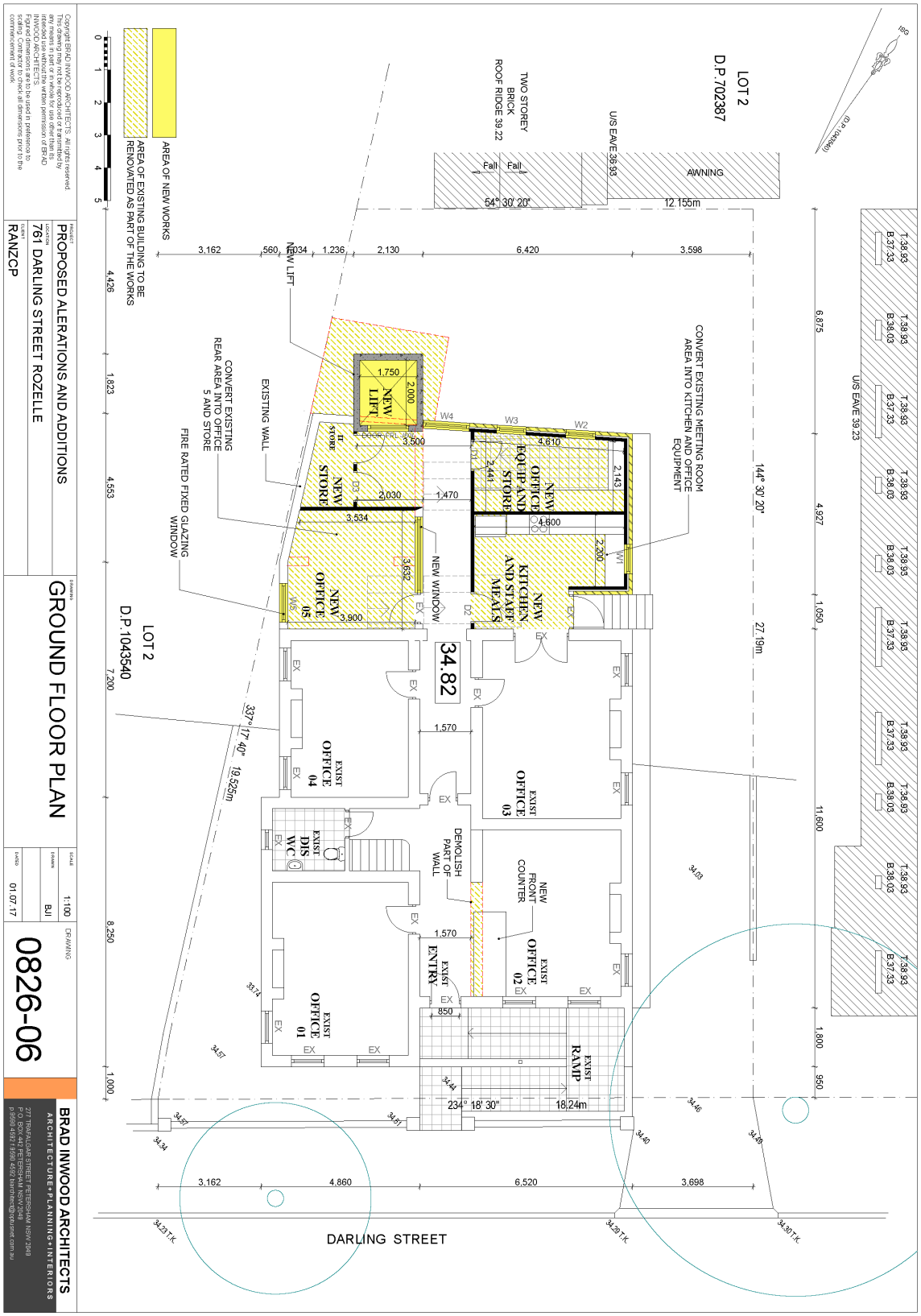
8. Prior to the issue of the Construction Certificate, the applicant must make contact with all relevant utility providers (such as Sydney Water, Energy Australia etc) whose services will be impacted upon by the development. A written copy of the requirements of each provider, as determined necessary by the Certifying Authority, must be obtained.

9. Any damage to the vehicular crossing and/or footpath and kerb and gutter during demolition/construction works are required to be reconstructed by your own contractor at no cost to Council. You or your contractor must complete an application for 'Construction of Vehicle Crossing and Public Domain Works' form, lodge a bond for the works, pay the appropriate fees and provide evidence of adequate public liability insurance, before commencement of works.

10. The appropriate owners consent will also need to be verified before any works can be undertaken that impact trees within Callan Park. Consultation may be required with the appropriate personnel who maintain the trees within Callan Park who may wish to also be present during works

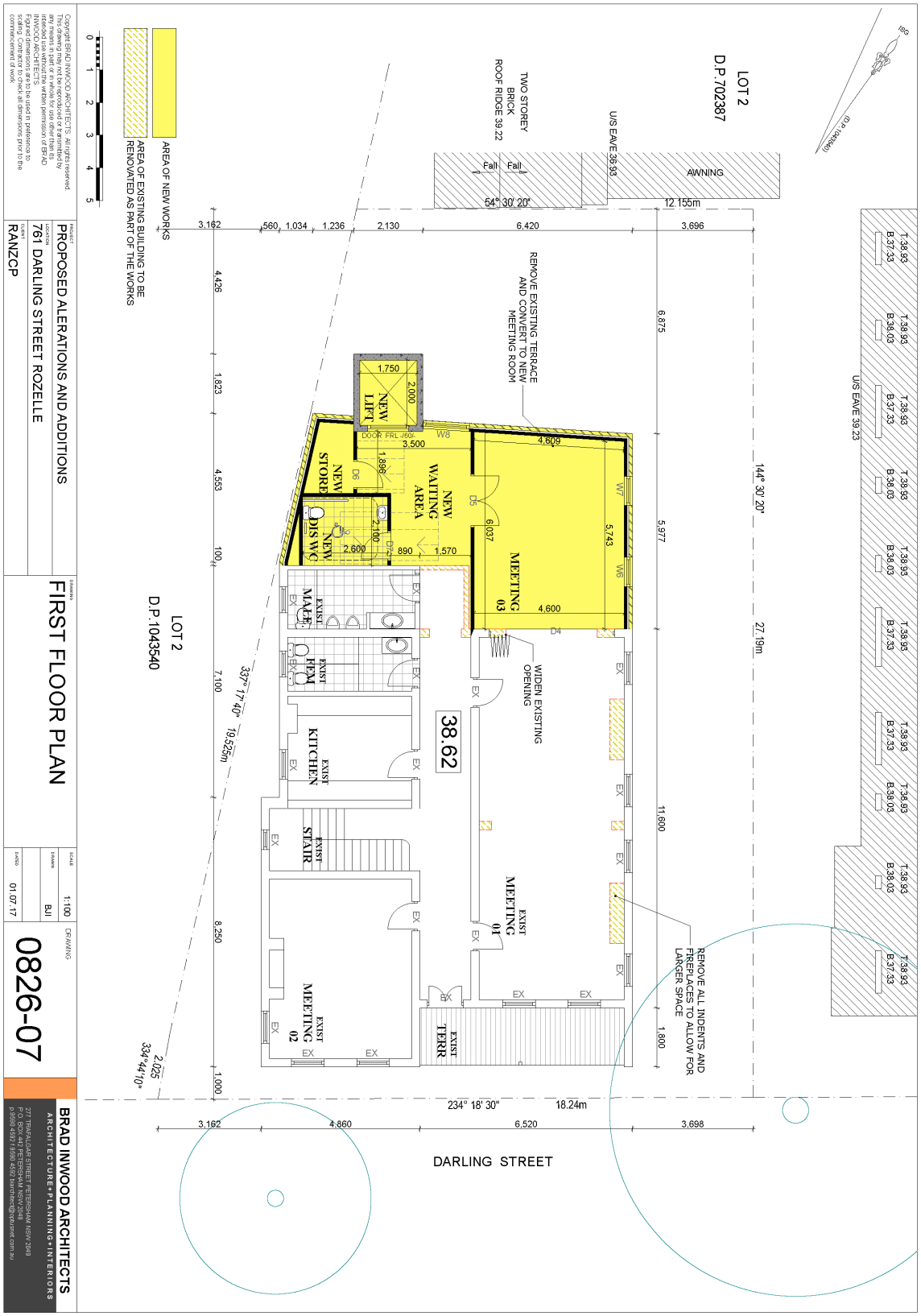
Attachment B – Plans of proposed development

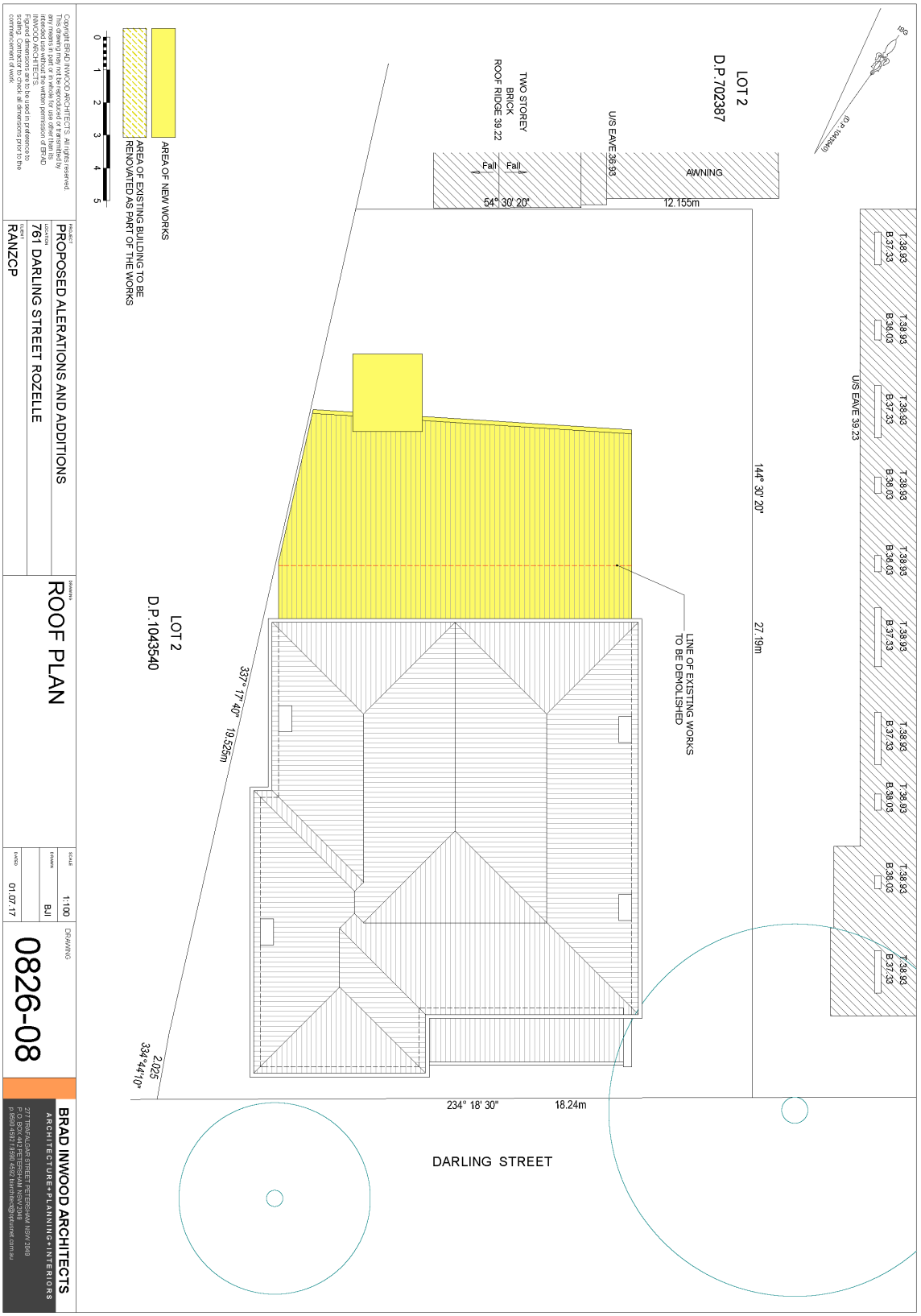


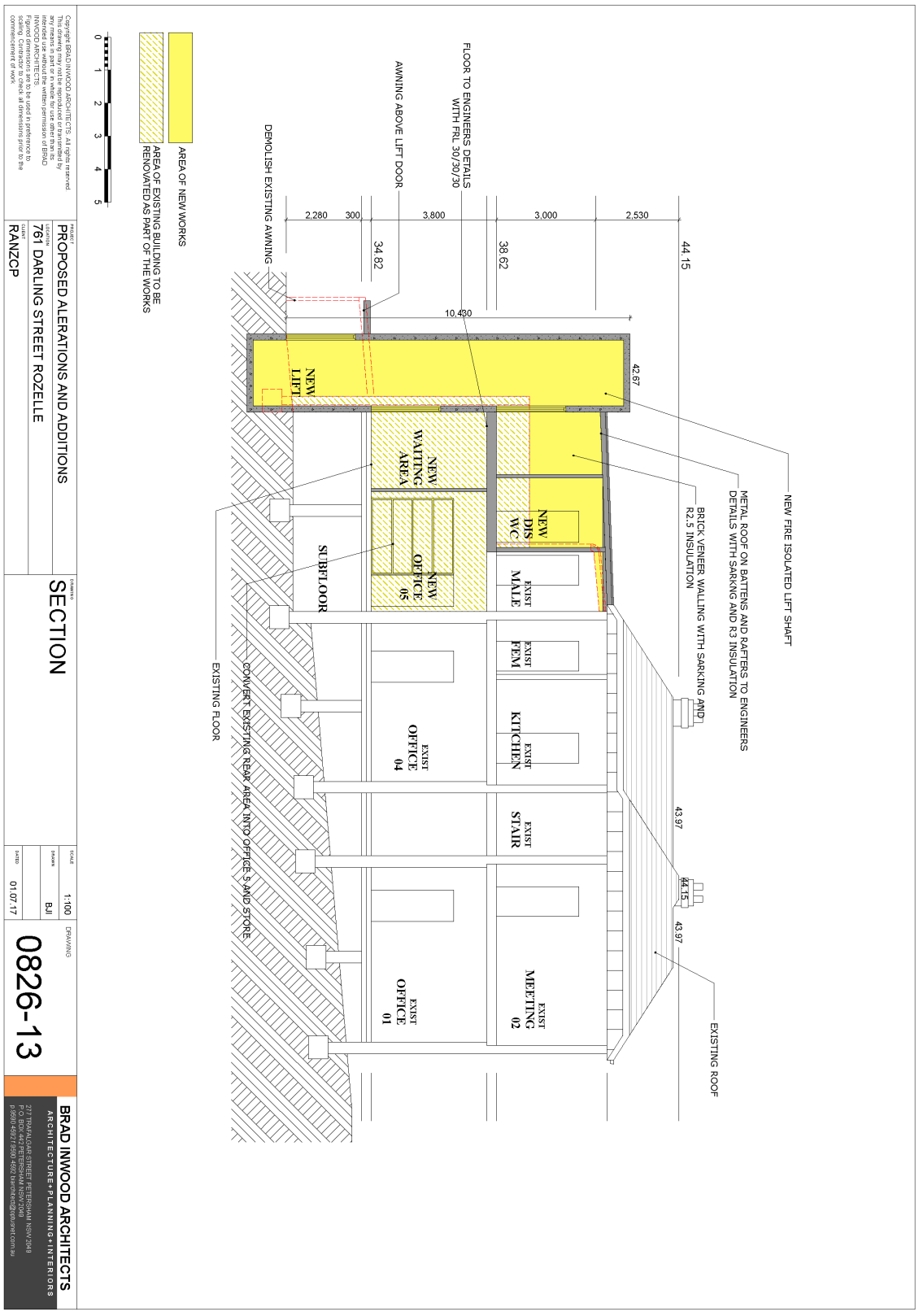


PROJECT: PROPOSED ALERATIONS AND ADDITIONS
LOCATION: 761 DARLING STREET ROZELLE
CLIENT: RANZCP
DRAWING: GROUND FLOOR PLAN
DRAWING NO: 0826-06
SCALE: 1:100
DRAWN: BJI
DATED: 01.07.17

BRAD INWOOD ARCHITECTS
ARCHITECTURE+PLANNING+INTERIORS
277 TRAFALGAR STREET PETERSHAM NSW 2049
P.O. BOX 442 PETERSHAM NSW 2049
p 9569 4492 f 9550 4492 brad.inwood@optusnet.com.au






NEW FIRE ISOLATED LIFT SHAFT
METAL ROOF ON BATTENS AND RAFTERS TO ENGINEERS DETAILS WITH SARKING AND R3 INSULATION
BRICK VENEER WALLING WITH SARKING AND R2.5 INSULATION
EXISTING ROOF
FLOOR TO ENGINEERS DETAILS WITH FRL 30/30/30
AWNING ABOVE LIFT DOOR
DEMOLISH EXISTING AWNING
EXISTING FLOOR
CONVERT EXISTING REAR AREA INTO OFFICE 5 AND STORE
NEW LIFT
NEW WAITING AREA
NEW OFFICE 05
NEW DIS WC
SUBFLOOR
EXIST MALE
EXIST FEM
EXIST KITCHEN
EXIST STAIR
EXIST OFFICE 04
EXIST MEETING 02
EXIST OFFICE 01
2,280
300
3,800
3,000
2,530
10,430
34.82
38.62
44.15
42.67
43.97
44.15
43.97
AREA OF NEW WORKS
AREA OF EXISTING BUILDING TO BE RENOVATED AS PART OF THE WORKS
0 1 2 3 4 5
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Figured dimensions are to be used in preference to scaling. Contractor to check all dimensions prior to the commencement of work.
project
PROPOSED ALERATIONS AND ADDITIONS
location
781 DARLING STREET ROZELLE
client
RANZCP
drawing
SECTION
scale
1:100
drawn
BJI
date
01.07.17
DRAWING
0826-13
BRAD INWOOD ARCHITECTS
ARCHITECTURE*PLANNING*INTERIORS
217 TRAFALGAR STREET PETERSHAM NSW 2049
P.O. BOX 442 PETERSHAM NSW 2049
p 9550 4567 f 9550 4562 bianntect@optusnet.com.au


AREA OF NEW WORKS
AREA OF EXISTING BUILDING TO BE RENOVATED AS PART OF THE WORKS
0 1 2 3 4 5
2,280
300
3,800
3,000
2,530
34.82
38.62
44.15
44.15
43.97
42.67
POWDER COATED ALUMINIUM WINDOWS
UPGRADE EXISTING WALL
LIFT OVERRUN
PAINTED BRICK WALLING
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Figured dimensions are to be used in preference to scaling. Contractor is to check all dimensions prior to the commencement of work
PROJECT
PROPOSED ALERATIONS AND ADDITIONS
LOCATION
761 DARLING STREET ROZELLE
CLIENT
RANZCP
DRAWING
EAST ELEVATION
SCALE
1:100
DRAWN
BJI
DATE
01.07.17
DRAWING
0826-11
BRAD INWOOD ARCHITECTS
ARCHITECTURE+PLANNING+INTERIORS
2/7 TRIANGLE STREET FRESHWATER NSW 2048
P.O. BOX 442 FRESHWATER NSW 2096
P 9938 4297 F 9938 4297 bradinwood@optusnet.com.au


AREA OF NEW WORKS
AREA OF EXISTING BUILDING TO BE RENOVATED AS PART OF THE WORKS
0 1 2 3 4 5
2,280
300
3,500
300
3,350
2,180
34.62
38.62
44.15
MAINTAIN EXISTING PARKING TO SUBFLOOR
UPGRADE EXISTING WALL
POWDER COATED ALUMINIUM WINDOWS
PAINTED BRICK WALLING
METAL ROOFING
43.97
42.67
44.15
LIFT DOORS
RENDER AND PAINT LIFT SHAFT
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PROJECT
PROPOSED ALERATIONS AND ADDITIONS
ADDRESS
761 DARLING STREET ROZELLE
CLIENT
RANZCP
DRAWING
NORTH ELEVATION
SCALE
1:100
DRAWN
BJI
DATE
01.07.17
DRAWING
0826-12
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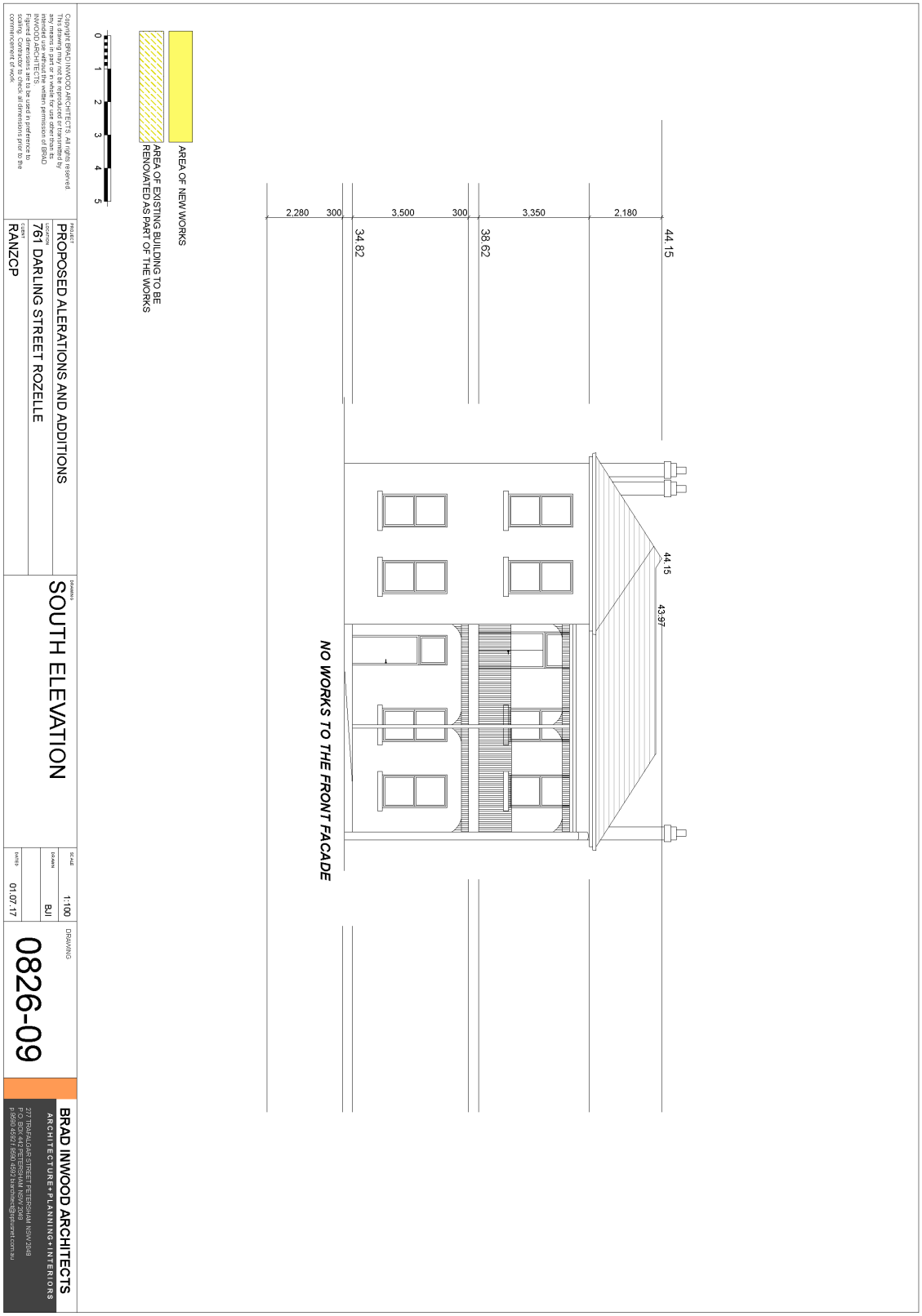
ARCHITECTURE • PLANNING • INTERIORS
277 TRAFALGAR STREET, PETERSHAM NSW 2049
P.O. BOX 442 PETERSHAM NSW 2049
p. 9568 4922 f. 9568 4922 bradinwood@optusnet.com.au


AREA OF NEW WORKS
AREA OF EXISTING BUILDING TO BE RENOVATED AS PART OF THE WORKS
0 1 2 3 4 5
2,280
300
3,500
300
3,350
2,180
34.82
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44.15
44.15
43.97
NO WORKS TO THE FRONT FACADE
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PROJECT
PROPOSED ALERATIONS AND ADDITIONS
761 DARLING STREET ROZELLE
RANZCP
DRAWING
SOUTH ELEVATION
SCALE
1:100
DRAWN
BJI
DATED
01.07.17
DRAWING
0826-09
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ARCHITECTURE+PLANNING+INTERIORS
277 TRAFALGAR STREET PETERSHAM NSW 2049
P.O. BOX 442 PETERSHAM NSW 2049
p 9560 4562 f 9560 4562 bradinwood@optusnet.com.au


AREA OF NEW WORKS
AREA OF EXISTING BUILDING TO BE RENOVATED AS PART OF THE WORKS
0 1 2 3 4 5
2,280
300
3,800
3,000
2,530
34.82
38.62
44.15
10,430
42.67
DEMOLISH EXISTING AWNING
LIFT OVERRUN
PAINTED BRICK WALLING
FIRE RATED FIXED GLAZING WINDOW
43.97
44.15
43.97
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PROJECT
PROPOSED ALERATIONS AND ADDITIONS
ADDRESS
761 DARLING STREET ROZELLE
CLIENT
RANZCP
DRAWING
WEST ELEVATION
SCALE
1:100
DRAWN
BJI
DATED
01.07.17
DRAWING
0826-10
BRAD INWOOD ARCHITECTS
ARCHITECTURE+PLANNING+INTERIORS
217 TRAFALGAR STREET PETERSHAM NSW 2049
P.O. BOX 442 PETERSHAM NSW 2049
p. 9568 4091 f. 9568 4092 bainchen@optusnet.com.au

Attachment C – Access Assessment Report

ACCESS
ASSESSMENT REPORT

PROPOSED BUILDING ALTERATIONS & ADDITIONS
761 DARLING STREET
ROZELLE NSW 2039

Prepared for: Brad Inwood Architects
277 Trafalgar Street
PETERSHAM NSW 2049
biarchitect@optusnet.com.au

Project No.: 2017-0783

Date: 8 November 2017

Issue: 1

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Report Revision History

Issue	Date	Prepared by
1	8 November 2017	Scott McGufficke MPH, GDip(Bld Surv), GCert(Mgt), BAppSc(Env Hlth), ADip(Hlth&Bld Surv), Diploma(Access Consult) MAIBS, MACAA, MAAC, MWBO AIBS Accredited Building Surveyor: 7071 ACAA Accredited Access Consultant: 350 Livable Housing Australia Registered Assessor: 10055 Company Director AcroCert Pty Ltd

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Legal issues in the area of anti-discrimination law are in the process of continual change. In addition, constant change is occurring in relation to Australian Standards and Building laws. Due reference should be given to these. All actions taken by a public authority, organisation or individual in reliance of a report for access remain the responsibility of that public authority, organisation or individual.

1.0 INTRODUCTION

AcroCert Pty Ltd has been commissioned by Brad Inwood Architects to provide a Disability Access Audit on plans for alterations and additions to 761 Darling Street, Rozelle NSW 2019 to ascertain compliance levels with the regulatory deemed-to-satisfy (DTS) access provisions for people with a disability.

This report serves to identify the building's compliance with the relevant provisions of the Building Code of Australia 2016 and the Access to Premises (Buildings) Standards 2010 as they relate to access and facilities for people with a disability.

1.1 Organisational Responsibilities

Disability Discrimination Act, 1992 (DDA)

All organisations have a responsibility under the DDA to provide, equitable and dignified access to goods and services and to premises. Premises are broadly defined and include all areas within the subject building normally used by its occupants (i.e. any person using the building including visitors, employees, employers and owners.).

When a person with a disability wants to utilise premises including all buildings, outdoor spaces, car parking areas, pathways and facilities, then equitable and dignified access shall be provided.

The DDA requires that appropriate changes may have to be made to provide access. A complaint can be made to the Human Rights Commission in accordance with the provisions of the DDA if appropriate access is not provided.

Disability (Access to Premises – Buildings), 2010

The *Disability (Access to Premises – Buildings) Standards, 2010* were introduced alongside the 2011 version of Volume 1 of the Building Code of Australia (BCA) on 1st May 2011. These Standards are now legislated as the minimum requirements for new buildings and buildings undergoing significant upgrade in Australia.

The aim of these Standards is to provide the building and design industry with detailed information regarding the required access provisions associated with the design and construction of new buildings and upgrade to existing buildings.

These Standards generally align with the BCA and reference a range of Australian Standards relating to access and other associated matters. The Standards aim to provide certainty for the building industry in relation to meeting the requirements for access in new and upgraded buildings.

The Standards and the Guideline that assists in interpreting the provisions of the Standards are available for free download.

For further information go to: http://www.ag.gov.au/premisesstandards

National Construction Code, 2016, Volume 1 Building Code of Australia (BCA)

The BCA, in conjunction with the DDA, applies to new buildings and buildings undergoing significant refurbishment or alteration. Parts of the BCA require compliance with a range of access provisions. The BCA outlines a variety of building classifications and the requirements for access to buildings within each classification. The BCA is referenced and adopted for use in NSW under the Environmental Planning and Assessment Act and Regulations.

1.2 Referenced Documents

The benchmark for this report is the National Construction Code Building Code of Australia 2016 Volume 1. In addition the following documents are also relevant:

- National Construction Code Series 2016 – Guide to Volume One
- Disability Discrimination Act 1992
- Disability (Access to Premises – Buildings) Standards 2010
- Guideline on the Application of The Premises Standards, Version 2, February 2013
- AS 1428.1:2009 Design for Access and Mobility – General Requirements for Access – New Building Work.
- The report is also based on the review of the following documents:
    - Preliminary Architectural drawings prepared by Brad Inwood Architects and Survey Plan prepared by JP Bates and Inwood, Registered Surveyors.

Drawing Title	Drawing Number	Dated
Preferred Option Lower Ground Floor	0826-05	01.07.17
Preferred Option Ground Floor Plan	0826-06	01.07.17
Preferred Option First Floor Plan	0826-07	01.07.17
Preferred Option Roof Plan	0826-08	01.07.17
South Elevation	0826-09	01.07.17
West Elevation	0826-10	01.07.17
East Elevation	0826-11	01.07.17
North Elevation	0826-12	01.07.17
Plan Showing Selected Details and Levels Over Lot 1 in DP 702387 # 761 Darling Street, Rozelle	17941-17	10.6.17

1.3 Other Limitations

This report does not include any assessment in relation to:

- the Occupational Health and Safety Act; or
- the NSW Environmental Planning & Assessment Act and Regulations; or
- the requirements of any Regulatory Authorities including, but not limited to, Telstra, Electricity Supply Authority, RMS, Council Planning Laws and the like; or
- the Local Government Act; or
- Workcover Authority requirements.

AcroCert Pty Ltd cannot guarantee acceptance of this report by the Human Rights Commission, the NSW Department of Planning, NSW Fire Brigades or any other approval or certifying authorities.

2.0 Compliance

The building consists of a combination of a carparking and storage area, office areas, meeting rooms and amenities.

The proposed alterations and additions include the addition of a lift and additional office/storage spaces at the rear of the building including some minor room reconfigurations within the existing building

The BCA provides for the following relevant compliance levels for access and facilities for people with a disability.

PERFORMANCE REQUIREMENTS:-

DP1
Access must be provided, to the degree necessary, to enable –

a. people to –
    I. approach the building from the road boundary and from any accessible carparking spaces associated with the building, and
    II. approach the building from any accessible associated building; and
    III. access work and public spaces, accommodation and facilities for personal hygiene; and
b. Identification of accessways at appropriate locations which are easy to find.

Note: DP1 does not apply to a Class 4 part of a building.

DP2
So that people can move safely to and within a building, it must have –

a. walking surfaces with safe gradients; and
b. any doors installed to avoid the risk of occupants –
    I. having their egress impeded; or
    II. being trapped in the building; and
c. any stairways and ramps with –
    I. slip-resistant walking surfaces on –
        A. ramps; and
        B. stairway treads or near the edge of the nosing; and
    II. suitable handrails where necessary to assist and provide stability to people using the stairway or ramp; and
    III. suitable landings to avoid undue fatigue; and
    IV. landings where a door opens from or onto the stairway or ramp so that the door does not create an obstruction; and
    V. in the case of a stairway, suitable safe passage in relation to the nature, volume and frequency of likely usage.

DP8
Carparking spaces for use by people with a disability must be –

a. provided, to the degree necessary, to give equitable access for carparking; and
b. designated and easy to find.

FP2.1
Suitable sanitary facilities for personal hygiene must be provided in a convenient location within or associated with a building, to the degree necessary, appropriate to –

a. the function or use of the building; and
b. the number and gender of the occupants; and
c. the disability or other particular needs of the occupants.

A performance requirement can be satisfied by complying with a deemed-to-satisfy solution or by a performance solution or by a combination of both.

This report refers only to deemed-to-satisfy solutions as outlined within the following table where Non-compliance means the referenced plan does not provide sufficient information indicates compliance with the relevant DTS Clause :-.

BCA DTS Clause	Details / Comments
D3.0	Deemed-to-Satisfy Provisions Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements DP1, DP2 and DP8 are satisfied by complying with Clauses D3.1 to D3.12.
D3.1 – Non-compliance	Each separate classification part of the building (other than the Class 4 part) must be 'accessible' to and within all areas normally used by the occupants. Accessible means having features to enable use by people with a disability.
D3.2(a)(b) & (e) – Non-compliance.	An accessway (i.e. a continuous accessible path of travel) must be provided to the proposed buildings from:- • the main points of pedestrian entry at the allotment boundaries; and • the required accessible carparking space on the allotment. The accessway must be provided through the main entry door and through not less than 50% of all pedestrian entrances including the principal pedestrian entrance. The doorway on the Darling Street entrance being the main entry door and at least one other doorway must be provided with an accessway through the doorway. The doorway on the Darling Street entrance must have a clear opening width of not less than 850mm. (The plan should clearly indicate this width without having to use a scale) A continuous accessible path of travel must not include a step, stairway, turnstile, revolving door, escalator, moving walk or other impediment.

BCA DTS Clause	Details / Comments
	The minimum unobstructed height of a continuous accessible path of travel shall be 2000mm or 1980mm at doorways. (The plan does not show any heights) Other than at specified locations, such as doors, curved ramps or similar, the minimum unobstructed width of a continuous path of travel must be 1000mm. The following items must not intrude into the minimum width:- • fixtures and fittings such as lights, awnings, opened windows, telephones, skirtings or similar objects, • fire safety measures such as hose reels, portable fire extinguishers or switchboards, • door handles less than 900mm above finished ground level. The plan does not show unobstructed widths of accessways. An accessway must have a slip-resistant surface with a texture traversable by wheelchair users and those with an ambulant or sensory disability. The plan does not show floor surface material/s The minimum clear opening of a doorway on a continuous path of travel must be 850mm when measured from the face of the opened door to the doorstop. The plan does not indicate doorway widths. All doors must have a luminance contrast of 30% provided between:- • door leaf and door jamb, • door leaf and adjacent wall, • architrave and wall, • door leaf and architrave, or • door jamb and adjacent wall. The minimum width of the area of luminance contrast shall be 50mm. The plan does not show any areas of luminance contrast. Door handles and related hardware and accessories on a door in, or forming part of, a continuous path of travel must comply with the following:- • The door handle and related hardware must be of the type that allows the door to be unlocked and opened with one hand. The handle shall be such that the hand of a person who cannot grip will not slip from the handle during the operation

BCA DTS Clause	Details / Comments
	of the latch. • The clearance between the handle and the back plate or door face at the centre grip section of the handle must be not less than 35mm and not more than 45mm. • Sliding doors must be fitted with 'D' type handles. • Where snibs are installed they must have a lever handle of a minimum length of 45mm from the centre of the spindle. • Where a door closer is fitted, the force required at the door handle to operate the door must not exceed 20N to initially open the door, swing or slide the door or to hold the door open between 60° and 90°. • Where an outward opening door is not self-closing, a horizontal handrail or pull bar must be fixed on the closing face of a side-hung door. • Door controls that need to be grasped or turned must be not less than 900mm and not more than 1100 above the plane of the finished floor • Door controls that only need to be pushed must not be less than 900mm and not more than 1200mm above the plane of the finished floor. • Handles on sliding doors must be not less than 60mm from the door jamb or doorstop when in the open or closed position. The plan does not show any door handles or related hardware. All electrical switches and controls on an accessible path of travel, other than general purpose outlets, must be located not less than 900mm or more than 1100mm above the plane of the finished floor and not less than 500mm from internal corners. The plan does not show any electrical switches and controls within any accessible pathway. A walkway or landing having a gradient in the direction of travel shallower than 1:33 which is provided on an accessway, must have a camber or crossfall no steeper than 1:40, other than a bitumen surface which must have a camber or crossfall no steeper than 1:33. The ground surface abutting the sides of the walkway must be a firm and level surface of a different material to that of the walkway and extend horizontally for a minimum of 600mm from the walkway unless one of the following is provided:- • a kerb complying with Figure 18 of AS1428.1:2009, or

BCA DTS Clause	Details / Comments
	• a kerb rail and handrail complying with Figure 19 of AS1428.1:2009, or • a wall not less than 450mm in height. Any kerb ramp leading from the carpark must have a slip resistant surface, a maximum rise of 190mm, a length not greater than 1520mm and a gradient not steeper than 1:8. Landings must be provided at the top and bottom of the kerb ramp and must be not less than 1200mm in length in the direction of travel. The profile of the kerb ramp must be as shown in Figures 24(A) or 24(B) of AS1428.1:2009. The plan does not show any accessible car park or any accessway from the car park to an accessible doorway. Threshold ramps at doorways on a continuous path of travel shall have:- • a maximum rise of 35mm, • a maximum length of 280mm, • a maximum gradient of 1:8, and • be located within 20mm of the door leaf which it serves. The edges of the threshold ramp shall be tapered or splayed at a minimum of 45° where the ramp does not abut a wall. The plans do not any levels at required accessible doorways
D3.3(h)	If carpet is to be used as a floor covering the following shall apply:- • the carpet pile height or pile thickness shall not exceed 11mm • the carpet backing thickness shall not exceed 4mm • the combined total maximum height shall not exceed 15mm.
D3.5 Non-compliance	**Accessible Carparking** One accessible carparking space shall be provided for every 100 (or part thereof) carparking spaces associated with Class 5 parts of the buildings. One space for every 50 carparking spaces (or part thereof) is required for carparking associated with the Class 6 parts of the buildings. The accessible carparking space shall comply with AS/NZS 2890.6:2009 Off-street Parking for People with Disabilities.

BCA DTS Clause	Details / Comments
	An angle parking space shall comply with the following – **i.** A dedicated (non-shared) space 2400mm wide x 5400mm long. **ii.** A shared area on one side (either left or right) of the dedicated space 2400mm wide x 5400mm long. **iii.** A shared area at either the front or the rear of the dedicated space 2400mm long x 2400mm wide. **iv.** The dedicated and shared areas shall be at the same level. **v.** A bollard shall be provided within the shared area to the side of the dedicated space centrally located 850mm from the front of the space. **vi.** The angle-parking angle shall be between 45° and 90° The parking space and wheelchair unloading area shall comprise a firm plane surface with a fall not exceeding 1:40 in any direction except where the surface is out of doors and bitumen sealed in which case the maximum fall shall not exceed 1:33. The dedicated space shall be identified by means of a white, 800mm to 1000mm symbol of access placed in a blue rectangle with no side more than 1200mm, located as a pavement marking in the centre of the space between 500mm and 600mm from its entry point. The dedicated space shall be outlined with yellow, slip resistant unbroken lines 80mm to 100mm wide on all sides excepting any side delineated by a kerb, barrier or wall. Vacant non-trafficked areas shall be outlined with yellow, unbroken lines 80mm to 100mm wide on all sides excepting any side delineated by a kerb, barrier or wall, and marked with diagonal stripes 150mm to 200mm wide with spaces 200mm to 300mm between the stripes. The stripes shall be at an angle 45°±10° to the side of the space. According to Clause D3.5(d) if not more than 5 carparking spaces are associated with a building an accessible carparking space need not be designated. The plan does not show any accessible car parking space.
D3.6 Non-compliance	**Signage** a. Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access or deafness, as appropriate, shall identify the accessible sanitary facilities.

BCA DTS Clause	Details / Comments
	b. Signage in accordance with S1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right handed use. c. Signage to identify an ambulant toilet accessible sanitary facility in accordance with AS1428.1 must be located on the door of the facility. d. Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS1428.1, must be provided to direct a person to the location of the nearest accessible pedestrian entrance. e. Where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility. The plan does not show any required signage.
D3.8 – Non-compliance	Tactile Indicators complying with Sections 1 and 2 of AS/NZS 1428.4:2009 are required to warn people who are blind or have a vision impairment that they are approaching any ramp (other than a step ramp or kerb ramp) and at the meeting point of any accessway and vehicular way adjacent to any pedestrian entrance to the building. In the absence of any other suitable barrier, tactile indicators must also be provided at any overhead obstruction less than 2.0m above floor level, other than at a doorway. The plan does not show any tactile indicators.
D3.12 – Non-compliance	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1-2009. The contrasting line shall be not less than 75 mm wide and shall extend across the full width of the glazing panel. The lower edge of the contrasting line shall be located between 900 mm and 1000 mm above the plane of the finished floor level. The plan does not show any contrasting markings on the main entrance doors.

BCA DTS Clause	Details / Comments
Specification D3.6	**Location of braille and tactile signs** Signs must be designed and installed as follows:- a. Braille and tactile components of a sign must be located not less than 1200mm and not higher than 1600mm above the floor or ground surface. b. Signs with single lines of characters must have the line of tactile characters not less than 1250mm and not more than 1350mm above the floor or ground surface. c. Signs must be located:- i. On the wall of the latch side of the door with the leading edge of the sign located between 50mm and 300mm from the architrave, and ii. Where the above is not possible, the sign may be placed on the door itself. d. Where a required exit is provided with an Exit Sign, signs must be located:- i. On the side that faces a person seeking egress; and ii. On the wall of the latch side of the door with the leading edge of the sign located between 50mm and 300mm from the architrave, and iii. Where the above is not possible, the sign may be placed on the door itself. iv.
F2.4(a) – Non-compliant	**Accessible Sanitary Facilities** An accessible unisex sanitary compartment must be provided. The plan does not show any accessible sanitary facility.
F2.4(c) – Non-compliant	**Accessible Sanitary Facilities** At each bank of toilets where there are one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with Clause 16 of AS1428.1 must be provided for use by males and females. The plan does not show any ambulant facility.

BCA DTS Clause	Details / Comments
Clause 16 AS1428.1:2009	**Sanitary Compartment for People with Ambulant Disabilities** a. Grabrails shall be installed in accordance with Clause 17. b. Doors shall have openings with a minimum clear width of 700mm. c. Doors shall be provided with an in-use indicator and a bolt or catch. Where a snib catch is used, the snib handle shall have a minimum length of 45mm from the centre of the spindle. The latch mechanism shall be openable from the outside in an emergency. d. A coat hook shall be provided at a height of between 1350mm and 1500mm from the floor. e. The compartment shall comply with the dimensions and circulation spaces specified within Figures 53(A) and 53(B). f.
Clause 17 AS1428.1:2009	**Grabrails** a. Grabrails shall be not less than 30mm and not more than 40mm outside diameter; or they shall have a sectional shape within the limits of 30mm to 40mm diameter. b. Exposed edges and corners shall have a radius of not less than 5mm. c. The fastenings and materials and construction shall be able to withstand a force of 1100N applied at any position in any direction without deformation or loosening or rotation of the fastenings or fittings. d. The clearance between the grabrail and the adjacent wall surface shall be not less than 50mm and not more than 60mm. The clearance above a horizontal grabrail shall extend above the top of the grabrail by not less than 600mm. The clearance below a horizontal or angles rail shall be a minimum of 50mm except at fixing points. e. Grabrails shall be fixed so that there is no obstruction to the passage of the hand along the top 270° arc of horizontal and angled grabrails. There shall be no obstruction to the passage of the hand for the full length of vertical grabrails.
Clause 15 AS1428.1:2009	**Accessible Sanitary Facilities** The circulation spaces, fixtures and fittings within the accessible sanitary facility must comply with the requirements of Clause 15 of AS1428.1:2009.

BCA DTS Clause	Details / Comments
	Clause 15.2.1 Water taps shall comply with the following – i. Taps shall have lever handles, sensor plates, or other similar controls. ii. Lever handles shall have not less than 50mm clearance from an adjacent surface. iii. Where separate taps are provided for hot and cold water, the hot water tap shall be placed to the left of the cold water tap for horizontal configurations, or above the cold water tap for vertical configurations. iv. Where hot water is provided, the water shall be delivered through a mixing spout. Clause 15.2.2 WC pan clearances, including set-out, seat height and seat width shall be as shown in Figure 38 of AS1428.1:2009. Clause 15.2.3 The toilet seat on accessible toilets shall – i. Be of the full-round type, (i.e. not open fronted) and with minimal contours to the top surface; ii. Be securely fixed in position when in use; iii. Have seat fixings that create lateral stability for the seat when in use; iv. Be load-rated to 150kg; and v. Have a minimum luminance contrast of 30% with the background (e.g. pan, wall or floor against which it is viewed) Clause 15.2.4 A backrest shall be provided on all accessible toilets. The backrest shall – i. Be capable of withstanding a force in any direction of 1100N; ii. Have a height, at the lower edge of backrest to the top of the WC seat, of 120mm to 150mm, as shown in Figure 39(a); iii. Have a vertical height of 150-200mm and a width of 350-400mm, as shown in Figure 39(a); and iv. The front edge of the centre of the backrest be positioned to achieve an angle of between 95° to 100° back from the seat hinge (Figure 39(b)) Clause 15.2.5 Flushing controls shall be user activated, either hand operated or automatic. Where hand-operated flushing controls are used, they shall be located within the zone shown in Figure 40, or centred on the centre-line of the toilet, wholly within the vertical limits of that zone. The position of the flushing control within this

BCA DTS Clause	Details / Comments
	zone shall not be within the area required for any grabrails or backrest. The flushing control shall be proud of the surface and shall activate the flush before the button becomes level with the surrounding surface. Clause 15.2.6 The outlet for the toilet paper dispenser shall be located within the zone specified in Figure 41. The toilet paper dispenser shall not encroach upon the clearance required around the grabrails. Clause 15.2.7 Where a concealed or high-level cistern or flush valve is used, a continuous grabrail, as specified in Clause 17, shall be provided across the rear wall and side wall nearest the WC pan, as shown in Figure 42. Where a low-level non-concealed cistern or flush valve is used, the grabrail shall be terminated at each side of the cistern, as shown in Figure 42. Clause 15.2.8.1 For each WC, the unobstructed circulation space from the finished floor to a height of not less than 2000mm shall be as shown in Figure 43, except for the following, which are allowed to intrude into the circulation space: i. The toilet paper dispenser (see Clause 15.2.6). ii. Grabrails (see Clause 15.2.7). iii. Washbasin limited to 100mm intrusion as shown in Figure 43. iv. Hand dryers and towel dispensers. v. Soap dispensers (see Clause 15.4.3). vi. Shelves (see Clause 14.4.2). vii. Wall cabinets, where provided, which shall not protrude more than 150mm into the circulation space. The mounting of wall cabinets shall be at least 900mm above the floor level and the top shelf shall be a maximum of 1250mm above floor level. viii. Clothes hanging devices (see Clause 15.4.4). ix. Portable sanitary disposal unit as shown in Figure 43. x. Other wall mounted fixtures, such as dispensing units and sharps disposal units, which shall have 900mm minimum height clearance from the finished floor level and a maximum projection of 150mm from the finished wall surface. The overlapping of circulation spaces shall be in accordance with Clause 15.6. Clause 15.2.8.2 Where installed, baby change tables shall – i. Not encroach into the circulation space of any other toilet facility when in the folded up position; and

BCA DTS Clause	Details / Comments
	ii. Have a maximum height of 820mm and a minimum clearance underneath of 720mm when in the open position. Clause 15.2.9 WC doors may be either hinged or sliding. WC doors shall comply with the following: i. Outward-opening doors shall have a mechanism that holds the door in a closed position without the use of a latch. ii. Doors shall be provided with an in-use indicator and a bolt or catch. Where a snib catch is used, the snib handle shall have a minimum length of 45mm from the centre of the spindle. In an emergency, the latch mechanism shall be openable from the outside. iii. The force required to operate the door shall be in accordance with Clause 13.5.2(e). iv. Door handles and hardware shall be in accordance with Clause 13.5. Clause 15.3.1 The installation of washbasins shall comply with the following: i. The washbasin shall be outside the pan circulation space as shown in Figure 43. ii. Water taps shall comply with Clause 15.2.1 iii. Exposed hot water supply pipes shall be insulated or located so as to not present a hazard. iv. The projection of the washbasin from the wall and the position of the taps, bowl and drain outlet shall be determined in accordance with Figures 44(A) and 44(B). v. Water supply pipes and waste outlet pipes shall not encroach on the required clear space under the washbasin. For each washbasin fixture, the unobstructed circulation space shall be as shown in Figure 46. The washbasin fixture and its fittings are the only fixtures permitted in this space. Clause 15.4.1 In all sanitary facilities, the mirror shall be located either above or adjacent to the washbasin. Where provided, a vertical mirror with a reflective surface not less than 350mm wide shall extend from a height of not more than 900mm to a height of not less than 1850mm above the plane of the finished floor. Where provided, a second vertical mirror shall extend from a height not less than 600mm to a height of not less than 1850mm above the plane of the finished floor. Note: Angled or tilted mirrors should not be used since they do not work for all users or accessible facilities.

BCA DTS Clause	Details / Comments
	Clause 15.4.2 Shelf space shall be provided adjacent to the washbasin in one of the following ways: i. As a vanity top at a height of 800mm to 830mm and a minimum width of 120mm and depth of 300mm to 400mm without encroaching into any circulation space. ii. As a separate fixture – a. Within any circulation space at a height of 900mm to 1000mm with a width of 120mm to 150mm and length of 300mm to 400mm; and b. External to all circulation spaces at a height of 790mm to 1000mm with a minimum width of 120mm and minimum length of 400mm. Clause 15.4.3 Where provided, soap dispensers, towel dispensers, hand dryers and similar fittings shall be operable by one hand, and shall be installed with the height of the operative component or outlet not less than 900mm and not more than 1100mm above the plane of the finished floor, and no closer than 500mm from an internal corner. Clause 15.4.4 A clothes-hanging device shall be installed 1200mm to 1350mm above the plane of the finished floor and not less than 500mm out from any internal corner. Clause 15.4.5 The sanitary disposal unit shall be located as follows: i. Portable unit as shown in Figure 43. ii. Recessed unit within 500mm from the pan. Clause 15.4.6 Where provided near the washbasin, switches and general purpose outlets shall be located in accordance with Clause 14 and as close to the shelf or worktop as practicable.

5.0 CONCLUSION

Equitable and dignified access for all users of this building is required.

AcroCert Pty Ltd has been commissioned by Brad Inwood Architects to provide a Disability Access Audit on plans for alterations and additions to 761 Darling Street, Rozelle NSW 2039 to ascertain compliance levels with the regulatory deemed-to-satisfy (DTS) access provisions for people with a disability.

This report identifies the existing building's compliance with the relevant provisions of the Building Code of Australia 2016 and the Access to Premises (Buildings) Standards 2010 as they relate to access and facilities for people with a disability and highlights a number of non-compliant issues.

Remedial works would be required on ensuring accessways are provided through required pedestrian entrances and to and within all areas used by the occupants of the building.

Accessible carparking is required and an accessway provided from the car park to an accessible entrance of the building.

A unisex accessible sanitary facility is required along with a designated ambulatory facility.

The items identified within this report should be considered within the context of building work in conjunction with any required building approval and should form part of any approved plans and specifications.

Signed: 

Scott McGufficke
Company Director | AcroCert Pty Ltd

Date: 17 May 2017

Issue: 1

Attachment D – BCA Assessment Report

BUILDING CODE OF AUSTRALIA Volume 1 2016
ASSESSMENT REPORT

PROPOSED BUILDING ALTERATIONS & ADDITIONS
761 DARLING STREET
ROZELLE NSW 2039

Prepared for: Brad Inwood Architects
277 Trafalgar Street
PETERSHAM NSW 2049
biarchitect@optusnet.com.au

Project No.: 2017-0783

Date: 5 October 2017

Issue: 1

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Report Revision History

Issue	Date	Prepared by
1	5 October 2017	Scott McGufficke

1.0 INTRODUCTION

This report comprises a preliminary assessment of plans for alterations and additions to an existing three storey office building with lower level garage/basement located at 761 Darling Street Rozelle NSW 2039, 'Maddison House RANZCP' being offices used for commercial purposes associated with psychiatric consulting services. This assessment is at the request of Brad Inwood Architects and is against the deemed-to-satisfy (DTS) provisions of the National Construction Code of Australia 2016, Building Code of Australia (the BCA), Volume 1 with NSW Variations.

As a preliminary assessment this report identifies the key BCA DTS requirements that will need to be more thoroughly addressed through more comprehensive design plans and specifications at the Construction Certificate stage of the development process which, at that stage, may or could, also incorporate 'performance solutions' in lieu of the DTS provisions of the BCA in order to meet any specified performance requirement.

This report may be used in support of any development application submitted to a Consent Authority seeking development consent for the carrying out of building works related to the alteration, renovation or rebuilding of the subject premises.

The proposed alterations and additions include the addition of a lift and additional office/storage spaces at the rear of the building including some minor room reconfigurations within the existing building.

1.1 Referenced Documents

The report is based on the review of the following documents:

- Building Code of Australia 2016
- Guide to the Building Code of Australia 2016
- Preliminary Architectural drawings prepared by Brad Inwood Architects and Survey Plan prepared by JP Bates and Inwood, Registered Surveyors.

Drawing Title	Drawing Number	Dated
Preferred Option Lower Ground Floor	0826-05	01.07.17
Preferred Option Ground Floor Plan	0826-06	01.07.17
Preferred Option First Floor Plan	0826-07	01.07.17
Preferred Option Roof Plan	0826-08	01.07.17
South Elevation	0826-09	01.07.17
West Elevation	0826-10	01.07.17
East Elevation	0826-11	01.07.17
North Elevation	0826-12	01.07.17
Plan Showing Selected Details and Levels Over Lot 1 in DP 702387 # 761 Darling Street, Rozelle	17941-17	10.6.17

1.2 Limitations

a) This report comprises an assessment of the drawings against the BCA 2016, inclusive of relevant NSW variations, being the version of NSW State Building Laws in force at the date of the assessment. It must be noted that the BCA is to be amended tri-annually from 2016, notwithstanding a forecast amendment in February 2018, and that this assessment may not comply with, or differ from, any future or past versions of the BCA.

b) This assessment does not include an assessment for compliance with any of the following Sections of the BCA:-

- Section B Structure
- Section I Maintenance
- Section J Energy Efficiency

c) This report does not include any assessment in relation to:

i. the Occupational Health and Safety Act; or

ii. the requirements of other Regulatory Authorities including, but not limited to, Telstra, The Sydney Water Corporation, Electricity Supply Authority, MRA, Local Council and the like; or

iii. the Local Government Act; or

iv. Workcover Authority requirements; or

v. The Disability Discrimination Act, 1992, inclusive of The Disability (Access to Premises – Buildings) Standards, 2010.

d) AcroCert Pty Ltd does not guarantee acceptance of this report by the NSW Department of Planning, NSW Fire Brigades or any other relevant approval authorities.

2.0 BUILDING CHARACTERISTICS

BCA Classifications: Clause A3.3 – Each part of a building must be classified separately and where parts have different purposes – if not more than 10% of the floor area of a storey, being the minor use, is used for a purpose which is a different classification, the classification applying to the major use may apply to the whole storey other than for Class 2 or 3 parts. If a building has parts of different classification, each part must comply with all the relevant provisions for its classification. Clause A3.1 – The classification of a building or part of a building is determined by the purpose for which it is designed, constructed or adapted to be used.	Class 5 – An office building used for professional or commercial purposes, excluding buildings of Class 6,7,8 or 9.
Rise in Storeys:	3
General floor area limitations for any 'fire compartment' or atrium – Clause C2.2:	Class 5 - maximum size - not to exceed 8,000m². Building <500m²
General volume limitations for any 'fire compartment' or atrium – Clause C2.2	Class 5 - maximum size – not to exceed 48,000m³.
Fire Compartment	Means either the total space of the entire building or, when referred to in the DTS provisions, any part of the building separated from the remainder by walls and/or floors each having a Fire Resistance Level (FRL) not less than that required for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the DTS

	provisions of the relevant Part.
Type of Construction Required:	Type B
Fire Source Features	• Far boundary of Darling Streets, and • Each side and rear boundary, where the distance from any fire-source feature to any building element is as prescribed within Table 4 to Specification C1.1 notwithstanding the general requirements and concessions as may be found within Clauses 2 & 3 of Specification C1.1
Effective height: means the vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating , ventilating, lift or other equipment, water tanks or similar service units)	6.38m
Climate zone:	5

3.0 KEY COMPLIANCE ISSUES

The following is a summary of the key BCA DTS compliance issues noted from an assessment of the plans and the information provided. Please refer to the clause-by-clause assessment in Appendix A for full details of all relevant BCA provisions.

It should be noted that only new building work associated with the alterations and additions are required to comply with the current version of the BCA as at the date of submission for a Construction Certificate application. However, the Consent Authority in determining any development application for alterations and additions to an existing building, must take into consideration Clause 94 of the NSW Environmental Planning and Assessment Regulation, 2000 and may require any part of the existing building to be brought into partial or total conformity with the BCA where the Consent Authority considers there are inadequate measures within the building to protect the safety of occupants in the event of fire or to prevent the spread of fire. This provision is entirely discretionary on behalf of the Consent Authority.

BCA Clause	Details / Comments
Part B1	Structural design must comply with the relevant provisions of Part B1.
C1.1 - Table C1.1	Type B Construction required. FRL of Building Elements:-

BCA Clause	Details / Comments
	External Wall <1.5m from Fire Source Feature – 120/120/120 External Wall 1.5m to <3m – 120/90/60 External Wall 3m to <9m – 120/30/30 External Wall 9m to <18m – 120/30/- External Wall >18m - -/-/- Loadbearing fire-resisting lift shaft – 120/120/120 Loadbearing internal wall bounding public corridors (i.e. an enclosed corridor provided as a means of egress from any part of a storey to a required exit) – 120/-/- Non-loadbearing internal wall bounding a public corridor - -/-/-
C1.8	If 'lightweight construction' is to be used it must comply with Clause C1.8 and Specification C1.8
C1.10 (NSW Variation)	The fire hazard properties of all floor linings, floor coverings, wall linings and ceiling linings, air handling ductwork, lift cars, non-required non fire-isolated stairways or pedestrian ramps, sarking type materials, attachments to floors, ceilings, internal walls and the internal linings of external walls, other materials including insulation materials other than sarking-type materials must comply with Specification C1.10. Paint or fire-retardant coatings must not be used in order to make a material comply with a required fire hazard property, except in respect of a material referred to in NSW Specification C1.1, NSW Table 4 and to which Notes 4 and 5 are applicable.
C2.2	The size of any fire compartment or atrium in a Class 5,6,7,8 or 9 building must not exceed the maximum floor area nor the maximum volume set out in Table C2.2. The building with proposed alterations and additions does not exceed these floor area and volume limitations.
C2.3	The building has not been considered as a large isolated building.
C2.10	Any lift connecting more than 2 storeys, must be separated from the rest of the building by enclosure in a shaft with an FRL prescribed by Specification C1.1.
C2.12	Lift motors and lift control panels, emergency generators used to sustain emergency equipment operating in the emergency mode, a central smoke control plant, boilers or any batteries installed having greater than 24 volts and 10 ampere hours, must be separated from the remainder of the building by fire resisting construction complying with Clause C2.12(d).
C2.13	An electricity substation located within the building must:-

BCA Clause	Details / Comments
	a. Be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and b. Have any doorway in that construction protected with a self-closing fire door with an FRL of not less than -/120/30. A main switchboard in the building that sustains emergency equipment operating in emergency mode must:- a. Be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and b. Have any doorway in that construction protected with a self-closing fire door with an FRL of not less than -/120/30. Electrical conductors that supply a substation or switchboard described above must:- a. Have a classification in accordance with AS/NZS 3013 of not less than WS52W; (or WS53S if located in a position that could be damaged by motor vehicles); or b. Be enclosed or otherwise protected by construction having an FRL of not less than 120/120/120. All switchboards for "required emergency equipment" must be constructed so that emergency equipment switchgear is separated from non-emergency switchgear by metal partitions designed to minimise the spread of a fault from the non-emergency switchgear. Required emergency equipment includes, but is not limited to:- i. fire hydrant booster pumps, ii. pumps for automatic sprinkler systems, water spray, chemical fluid suppression systems or the like, iii. air handling systems designed to exhaust and control the spread of fire and smoke, iv. control and indicating equipment, v. sound systems and intercom systems for emergency purposes.
C3.2 and C3.4	Any opening in any external wall that is required to have an FRL must be protected, if the distance between the opening and the fire-source feature is less than:- i. 3m from a side or rear boundary; or ii. 6m from the far boundary of a road adjoining the allotment when located in a storey at or near ground level; or iii. 6m from another building on the allotment other than a class 10;

BCA Clause	Details / Comments
	as follows for:- i. Doorways – a. wall-wetting sprinklers used with doors that are self-closing or automatic closing; or b. -/60/30 fire doors that are self-closing or automatic closing. ii. Windows – a. wall-wetting sprinklers used with windows that are automatic closing or permanently fixed in the closed position; or b. -/60/- fire windows that are automatic closing or permanently fixed in the closed position; or c. -/60/- automatic closing fire shutters. iii. Other openings – a. excluding voids – wall-wetting sprinklers; or b. construction having an FRL not less than -/60/-. Fire doors, fire windows and fire shutters must comply with Specification C3.4. Wall-wetting sprinklers must be located externally. Any opening required to be protected must not occupy more than 1/3 of the area of the external wall of the storey in which it is located.
C3.10	An entrance doorway to a fire-isolated lift shaft must be protected by -/60/- fire doors that comply with AS1735.11 and are set to remain closed except when discharging or receiving passengers or goods. A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than -/60/60 if it exceeds 35,000mm² in area.
C3.15	Any electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrating a building element (other than an external wall or roof) that is required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire, must comply with Clause C3.15(a), (b) or (c).
D1.2	The building must have at least one exit from each storey.
D2.8	The proposed accessible sanitary facility located within an enclosed space beneath the required non-fire isolated stairway must be enclosed with walls and ceiling having an FRL of not less than 60/60/60 and the

BCA Clause	Details / Comments
	doorway fitted with a self-closing -/60/30 fire door.
D2.21	All latching to doors in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by a single hand downward action or pushing action on a single device which is located between 900mm and 1100mm from the floor.
D3.1	Class 5 buildings are required to be accessible to and within all areas normally used by the occupants.
D3.2	An accessway must be provided to the building – i. From the main points of a pedestrian entry at the allotment boundary; and ii. From any required accessible carparking space on the allotment. A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with an ambulant or sensory disability. Walkways and landings having gradients in the direction of travel shallower than 1 in 33 shall have a camber or crossfall not steeper than 1 in 40 for shedding of water, except that bitumen surfaces shall have a camber or crossfall no steeper than 1 in 33. The ground surface abutting the sides of the accessway shall provide a firm and level surface of a different material to that of the accessway at the same level of the accessway, follow the grade of the accessway and extend horizontally for a minimum of 600mm unless one of the following is provided – i. A kerb complying with Figure 18 of AS1428.1:2009; or ii. A kerb rail and handrail complying with Figure 19 of AS1428.1:2009; or iii. A wall not less than 450mm in height. A continuous accessible path of travel from the main pedestrian entry at the allotment boundary to the entrance doorway must be "uninterrupted". It must not include a step, stairway or other impediment.
D3.3	a. An external ramp must comply with clause 10 of AS 1428.1-2009 b. The passenger lifts must comply with Clause E3.6 c. The clear width of accessways must be a minimum of 1000mm. d. Ground surfaces must comply with cl. 7 of AS1428.1-2009.
D3.5	One accessible carparking space must be provided for every 100 (or part

BCA Clause	Details / Comments
	thereof) carparking spaces. The accessible carparking space must comply with AS/NZS 2890.6:2009 Off-street Parking for People with Disabilities. An angle parking space must comply with the following – **i.** A dedicated (non-shared) space 2400mm wide x 5400mm long. **ii.** A shared area on one side (either left or right) of the dedicated space 2400mm wide x 5400mm long. **iii.** A shared area at either the front or the rear of the dedicated space 2400mm long x 2400mm wide. **iv.** The dedicated and shared areas shall be at the same level. **v.** A bollard shall be provided within the shared area to the side of the dedicated space centrally located 850mm from the front of the space. **vi.** The angle-parking angle shall be between 45° and 90° The parking space and wheelchair unloading area shall comprise a firm plane surface with a fall not exceeding 1:40 in any direction except where the surface is out of doors and bitumen sealed in which case the maximum fall shall not exceed 1:33. The dedicated space shall be identified by means of a white, 800mm to 1000mm symbol of access placed in a blue rectangle with no side more than 1200mm, located as a pavement marking in the centre of the space between 500mm and 600mm from its entry point. The dedicated space shall be outlined with yellow, slip resistant unbroken lines 80mm to 100mm wide on all sides excepting any side delineated by a kerb, barrier or wall. Vacant non-trafficked areas shall be outlined with yellow, unbroken lines 80mm to 100mm wide on all sides excepting any side delineated by a kerb, barrier or wall, and marked with diagonal stripes 150mm to 200mm wide with spaces 200mm to 300mm between the stripes. The stripes shall be at an angle 45°±10° to the side of the space. Notwithstanding the above, an accessible carparking space need not be designated where there is a total of not more than 5 carparking spaces, so as to restrict the use of the carparking space only for people with a disability.
D3.6	Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access or deafness, as appropriate, must identify each sanitary facility. Signage must identify each door required by Clause E4.5 to be provided with an exit sign and state 'Exit' and 'Level'. Signage in accordance with AS1428.1 must be provided for accessible

BCA Clause	Details / Comments
	unisex sanitary facilities to identify if the facility is suitable for left or right handed use. Signage to identify an ambulant toilet accessible sanitary facility in accordance with AS1428.1 must be located on the door of the facility. Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS1428.1, must be provided to direct a person to the location of the nearest accessible pedestrian entrance. Whare a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility. Signs must be designed and installed as follows:- a. Braille and tactile components of a sign must be located not less than 1200mm and not higher than 1600mm above the floor or ground surface. b. Signs with single lines of characters must have the line of tactile characters not less than 1250mm and not more than 1350mm above the floor or ground surface. c. Signs must be located:- i. On the wall of the latch side of the door with the leading edge of the sign located between 50mm and 300mm from the architrave, and ii. Where the above is not possible, the sign may be placed on the door itself. d. Where a required exit is provided with an Exit Sign, signs must be located:- i. On the side that faces a person seeking egress; and ii. On the wall of the latch side of the door with the leading edge of the sign located between 50mm and 300mm from the architrave, and Where the above is not possible, the sign may be placed on the door itself.
D3.8	Tactile Indicators complying with Sections 1 and 2 of AS/NZS 1428.4:2009 are required to warn people who are blind or have a vision impairment that they are approaching any ramp (other than a step ramp or kerb ramp) and at the meeting point of any accessway and vehicular way adjacent to any pedestrian entrance to the building. In the absence of any other suitable barrier, tactile indicators must also

BCA Clause	Details / Comments
	be provided at any overhead obstruction less than 2.0m above floor level, other than at a doorway.
D3.12	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS1428.1. The contrasting line shall be not less than 75 mm wide and shall extend across the full width of the glazing panel. The lower edge of the contrasting line shall be located between 900 mm and 1000 mm above the plane of the finished floor level.
E1.6	Portable fire extinguishers must be provided as listed in Table E1.6 and selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS2444.
E2.2 & Table E2.2a	A Class 5 building having a rise in storeys of more than 2 must be provided with an automatic smoke detection and alarm system complying with Specification E2.2a.
E3.1	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification E3.1.
E3.3	A warning sign must displayed complying with Figure E3.3 near every call button for the passenger lifts.
E3.5	Access and egress to and from liftwell landings must comply with the DTS provisions of Section D.
E4.2 and E4.4	An emergency lighting system must be installed throughout the building in accordance with Clause E4.2 and E4.4.
E4.5, E4.6 (NSW Variation) & E4.8	Exit signs and direction signs must be installed throughout the building in accordance with Clauses E4.5, E4.6 and E4.8.
F1.1	Stormwater drainage must comply with AS/NZS 3500.3:2015
F1.4	Waterproofing membranes for external above ground use must comply with AS 4654 Parts 1 and 2.
F1.5(d)	Metal roof sheeting must comply with AS1562.1:1992.
F1.6	Sarking-type materials used for weatherproofing of roofs and walls must comply with AS/NZS 4200 Parts 1 and 2.
F1.7	All building elements in wet areas, a bathroom or shower room, a slop hopper or sink compartment, a laundry or sanitary compartment must:- a. be water resistant or waterproof in accordance with Table F1.7; and

BCA Clause	Details / Comments
	b. comply with AS 3740:2010.
F1.9	Moisture from the ground must be prevented from reaching the walls above the damp-proof course and the underside of a suspended floor, including its supporting beams or girders, and where a damp-proof course is provided, it must consist of a material that complies with AS/NZS 2904:1995 or impervious sheet material in accordance with AS 3660.1:2014.
F1.10	Where the floor of any room is laid directly on the ground or on fill, moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapour barrier in accordance with AS 2870:2011. Damp-proofing need not be provided if weatherproofing is not required or the floor is the base of a stair, lift or similar shaft which is adequately drained by gravitation or mechanical means.
F1.13	Windows, sliding and swinging glazed doors with a frame, adjustable louvres and window walls with one piece framing located in an external wall must comply with AS 2047:2014 requirements for resistance to water penetration. The following glazed assemblies need not comply with the above:- I. any glazed assembly not in an external wall, II. fixed louvres, III. skylights, roof lights and windows other than the vertical plane, IV. sliding and swinging glazed doors without a frame, V. windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 20147:2014, VI. second hand windows, re-used windows and recycled windows, and VII. heritage windows.
F2.3	Sanitary and other facilities must be provided in accordance with Table F2.3.
F2.4	Accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4 (a).
F2.4(c)	On each level where there is more than one toilet in addition to an accessible unisex sanitary compartment at a bank of toilets, a sanitary compartment complying with AS1428.1:2009 suitable for a person with an ambulant disability must be provided for use by males and females. a. Grabrails shall be installed in accordance with Clause 17.

BCA Clause	Details / Comments
	I. Grabrails shall be not less than 30mm and not more than 40mm outside diameter; or they shall have a sectional shape within the limits of 30mm to 40mm diameter. II. Exposed edges and corners shall have a radius of not less than 5mm. III. The fastenings and materials and construction shall be able to withstand a force of 1100N applied at any position in any direction without deformation or loosening or rotation of the fastenings or fittings. IV. The clearance between the grabrail and the adjacent wall surface shall be not less than 50mm and not more than 60mm. The clearance above a horizontal grabrail shall extend above the top of the grabrail by not less than 600mm. The clearance below a horizontal or angles rail shall be a minimum of 50mm except at fixing points. V. Grabrails shall be fixed so that there is no obstruction to the passage of the hand along the top 270° arc of horizontal and angled grabrails. There shall be no obstruction to the passage of the hand for the full length of vertical grabrails. b. Doors shall have openings with a minimum clear width of 700mm. c. Doors shall be provided with an in-use indicator and a bolt or catch. Where a snib catch is used, the snib handle shall have a minimum length of 45mm from the centre of the spindle. The latch mechanism shall be openable from the outside in an emergency. d. A coat hook shall be provided at a height of between 1350mm and 1500mm from the floor. The compartment shall comply with the dimensions and circulation spaces specified within Figures 53(A) and 53(B).
F2.4(e)	The circulation spaces, fixtures and fittings within accessible sanitary facilities must comply with the requirements of Clause 15 of AS1428.1:2009. Clause 15.2.1 Water taps shall comply with the following – i. Taps shall have lever handles, sensor plates, or other similar controls. ii. Lever handles shall have not less than 50mm clearance from an adjacent surface. iii. Where separate taps are provided for hot and cold water, the hot water tap shall be placed to the left of the cold water tap for

BCA Clause	Details / Comments
	horizontal configurations, or above the cold water tap for vertical configurations. iv. Where hot water is provided, the water shall be delivered through a mixing spout. Clause 15.2.2 WC pan clearances, including set-out, seat height and seat width shall be as shown in Figure 38 of AS1428.1:2009. Clause 15.2.3 The toilet seat on accessible toilets shall – i. Be of the full-round type, (i.e. not open fronted) and with minimal contours to the top surface; ii. Be securely fixed in position when in use; iii. Have seat fixings that create lateral stability for the seat when in use; iv. Be load-rated to 150kg; and v. Have a minimum luminance contrast of 30% with the background (e.g. pan, wall or floor against which it is viewed) Clause 15.2.4 A backrest shall be provided on all accessible toilets. The backrest shall – i. Be capable of withstanding a force in any direction of 1100N; ii. Have a height, at the lower edge of backrest to the top of the WC seat, of 120mm to 150mm, as shown in Figure 39(a); iii. Have a vertical height of 150-200mm and a width of 350-400mm, as shown in Figure 39(a); and iv. The front edge of the centre of the backrest be positioned to achieve an angle of between 95° to 100° back from the seat hinge (Figure 39(b)) Clause 15.2.5 Flushing controls shall be user activated, either hand operated or automatic. Where hand-operated flushing controls are used, they shall be located within the zone shown in Figure 40, or centred on the centre-line of the toilet, wholly within the vertical limits of that zone. The position of the flushing control within this zone shall not be within the area required for any grabrails or backrest. The flushing control shall be proud of the surface and shall activate the flush before the button becomes level with the surrounding surface. Clause 15.2.6 The outlet for the toilet paper dispenser shall be located within the zone specified in Figure 41. The toilet paper dispenser shall not encroach upon the clearance required around the grabrails. Clause 15.2.7 Where a concealed or high-level cistern or flush valve is used, a continuous grabrail, as specified in Clause 17, shall be provided across the rear wall and side wall nearest the WC pan, as shown in Figure

BCA Clause	Details / Comments
	42. Where a low-level non-concealed cistern or flush valve is used, the grabrail shall be terminated at each side of the cistern, as shown in Figure 42. Clause 15.2.8.1 For each WC, the unobstructed circulation space from the finished floor to a height of not less than 2000mm shall be as shown in Figure 43, except for the following, which are allowed to intrude into the circulation space: i. The toilet paper dispenser (see Clause 15.2.6). ii. Grabrails (see Clause 15.2.7). iii. Washbasin limited to 100mm intrusion as shown in Figure 43. iv. Hand dryers and towel dispensers. v. Soap dispensers (see Clause 15.4.3). vi. Shelves (see Clause 14.4.2). vii. Wall cabinets, where provided, which shall not protrude more than 150mm into the circulation space. The mounting of wall cabinets shall be at least 900mm above the floor level and the top shelf shall be a maximum of 1250mm above floor level. viii. Clothes hanging devices (see Clause 15.4.4). ix. Portable sanitary disposal unit as shown in Figure 43. x. Other wall mounted fixtures, such as dispensing units and sharps disposal units, which shall have 900mm minimum height clearance from the finished floor level and a maximum projection of 150mm from the finished wall surface. The overlapping of circulation spaces shall be in accordance with Clause 15.6. Clause 15.2.8.2 Where installed, baby change tables shall – i. Not encroach into the circulation space of any other toilet facility when in the folded up position; and ii. Have a maximum height of 820mm and a minimum clearance underneath of 720mm when in the open position. Clause 15.2.9 WC doors may be either hinged or sliding. WC doors shall comply with the following: i. Outward-opening doors shall have a mechanism that holds the door in a closed position without the use of a latch. ii. Doors shall be provided with an in-use indicator and a bolt or catch. Where a snib catch is used, the snib handle shall have a minimum length of 45mm from the centre of the spindle. In an

BCA Clause	Details / Comments
	emergency, the latch mechanism shall be openable from the outside. iii. The force required to operate the door shall be in accordance with Clause 13.5.2(e). iv. Door handles and hardware shall be in accordance with Clause 13.5. Clause 15.3.1 The installation of washbasins shall comply with the following: i. The washbasin shall be outside the pan circulation space as shown in Figure 43. ii. Water taps shall comply with Clause 15.2.1 iii. Exposed hot water supply pipes shall be insulated or located so as to not present a hazard. iv. The projection of the washbasin from the wall and the position of the taps, bowl and drain outlet shall be determined in accordance with Figures 44(A) and 44(B). v. Water supply pipes and waste outlet pipes shall not encroach on the required clear space under the washbasin. For each washbasin fixture, the unobstructed circulation space shall be as shown in Figure 46. The washbasin fixture and its fittings are the only fixtures permitted in this space. Clause 15.4.1 In all sanitary facilities, the mirror shall be located either above or adjacent to the washbasin. Where provided, a vertical mirror with a reflective surface not less than 350mm wide shall extend from a height of not more than 900mm to a height of not less than 1850mm above the plane of the finished floor. Where provided, a second vertical mirror shall extend from a height not less than 600mm to a height of not less than 1850mm above the plane of the finished floor. Note: Angled or tilted mirrors should not be used since they do not work for all users or accessible facilities. Clause 15.4.2 Shelf space shall be provided adjacent to the washbasin in one of the following ways: i. As a vanity top at a height of 800mm to 830mm and a minimum width of 120mm and depth of 300mm to 400mm without encroaching into any circulation space. ii. As a separate fixture – a. Within any circulation space at a height of 900mm to 1000mm with a width of 120mm to 150mm and length of 300mm to 400mm; and b. External to all circulation spaces at a height of 790mm to

BCA Clause	Details / Comments
	1000mm with a minimum width of 120mm and minimum length of 400mm. Clause 15.4.3 Where provided, soap dispensers, towel dispensers, hand dryers and similar fittings shall be operable by one hand, and shall be installed with the height of the operative component or outlet not less than 900mm and not more than 1100mm above the plane of the finished floor, and no closer than 500mm from an internal corner. Clause 15.4.4 A clothes-hanging device shall be installed 1200mm to 1350mm above the plane of the finished floor and not less than 500mm out from any internal corner. Clause 15.4.5 The sanitary disposal unit shall be located as follows: i. Portable unit as shown in Figure 43. ii. Recessed unit within 500mm from the pan. Clause 15.4.6 Where provided near the washbasin, switches and general purpose outlets shall be located in accordance with Clause 14 and as close to the shelf or worktop as practicable.
F4.11	Every storey of a carpark must have either a system of mechanical ventilation complying with AS 1668.2 or natural ventilation complying with AS 1668.4. – Section 4.
Section J – Not Assessed.	The building is required to comply with all of the relevant energy efficiency provisions of Section J.

4.0 CONCLUSION

This report contains an assessment of the referenced architectural documentation for the proposed development against the DTS provisions of the BCA

It is considered that the building alterations and additions can comply with the BCA however, additional specific detail will need to be provided prior to the issue a Construction Certificate indicating compliance with –

1. Part C1 Fire Resistance and Stability.
2. Part C3 The Protection of Openings.
3. Specification C1.1 Fire Resisting Construction.
4. Part D3 Access for People with a Disability
5. Part E1 Fire Fighting Equipment
6. Part E2 Smoke Hazard Management
7. Part E3 Lift Installations

8. Part E4 Visibility in an Emergency, Exit Signs and Warnings
9. Part F1 Damp and Weatherproofing
10. Part F2 Sanitary and Other facilities
11. Part F4 Light and Ventilation
12. Section J Energy Efficiency.

It should be noted that only new building work associated with the alterations and additions are required to comply with the current version of the BCA as at the date of submission for a Construction Certificate application. However, the Consent Authority in determining any development application for alterations and additions to an existing building, must take into consideration Clause 94 of the NSW Environmental Planning and Assessment Regulation, 2000 and may require any part of the existing building to be brought into partial or total conformity with the BCA where the Consent Authority considers there are inadequate measures within the building to protect the safety of occupants in the event of fire or to prevent the spread of fire.

Scott McGufficke
MPH, GDip(Bld Surv), GCert(Mgt), BAppSc(Env Hlth), ADip(Hlth&Bld Surv), Diploma(Access Consult)
MAIBS, MACAA, MAAC, MWBO
AIBS Accredited Building Surveyor: 7071
ACAA Accredited Access Consultant: 350
Livable Housing Australia Registered Assessor: 10055
Company Director AcroCert Pty Ltd

ATTACHMENTS:

- Appendix A – BCA Clause-by-Clause Assessment
- Scott McGufficke – Curriculum Vitae

Appendix A – BCA Clause-by-Clause Assessment

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
SECTION A – GENERAL PROVISIONS						
Part A3.2	Classification	5				x
SECTION B – STRUCTURE						
PART B1 – STRUCTURAL PROVISIONS						
B1.2	Determination of individual actions	A structural consultant must certify that the structural design complies with B1.2 and AS/NZS 1170 series.			x	
B1.3	*Repealed*	-				
B1.4	Materials & Forms of Construction	The structural resistance of materials and forms of construction must be determined in accordance with the following: (a) Masonry (including masonry-veneer, unreinforced masonry and reinforced masonry): AS 3700. (b) Concrete construction (including reinforced and prestressed concrete): AS 3600. (c) Steel construction— (i) Steel structures: AS 4100. (ii) Cold-formed steel structures: AS/NZS 4600. (iii) Residential and low-rise steel framing: NASH Standard. (d) Composite steel and concrete: AS 2327.1. (e) Aluminium construction: AS/NZS 1664.1 or AS/NZS 1664.2. (g) Piling: AS 2159. (h) Glazed assemblies: AS 2047 and AS 1288 (i) Termite Risk Management: Where a *primary building element* is subject to attack by subterranean termites: AS 3660.1 (j) Roof construction AS/NZS 1562.3, AS/NZS 4256 Parts 1, 2, 3 and 5. AS 2049, AS 2050. AS/NZS 2908.1 AS/NZS 1562.3 AS 1562.1.			x	

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
SECTION C – FIRE RESISTANCE						
PART C1 – FIRE RESISTANCE & STABILITY						
C1.1	Type of Construction	Type B – Must comply with Specification C1.1 Clause 4 and Table 4.			x	
C1.2	Calculation of Rise In Storeys	Rise in storeys = 3				x
C1.3	Buildings of Multiple Classification	Noted.				x
C1.4	Mixed Types of Construction	Not applicable				x
C1.5	Two Storey Class 2, 3 or 9c Buildings	Not applicable				x
C1.6	Class 4 Parts of Buildings	Not applicable				x
C1.7	Open Spectator Stands & Indoor Sports Stadiums	Not applicable				x
C1.8	Lightweight Construction	If proposed, lightweight construction must comply with Specification C1.8			x	
C1.9	*Repealed*	-				
C1.10	Fire Hazard Properties	The fire hazard properties of linings, materials and assemblies in a Class 2 to 9 building must comply with Specification C1.10			x	
C1.11	Performance of External Walls	Not applicable				x
C1.12	Non-Combustible Material	Note: Materials listed in clause C1.12, though combustible or containing combustible fibres, may be used wherever a non-combustible material is required.				x
C1.13	Fire-protected Timber - Concessions	Not Applicable				x
PART C2 – FIRE COMPARTMENTATION & SEPARATION						
C2.1	Application	Noted.				
C2.2	General Floor Area Limitations	The floor area and volume of fire compartments must not be exceeded in accordance with Table C2.2			x	
C2.3	Large Isolated Buildings	Not Applicable				x
C2.4	Requirements for open spaces and vehicular access.	Not Applicable				x

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
C2.5 (NSW)	Class 9a & 9c Buildings	Not Applicable				x
C2.6	Vertical separation of openings in external Walls	Not Applicable				x
C2.7	Separation by fire walls	Not Applicable				x
C2.8	Separation of classifications in the same storey	Not Applicable				x
C2.9	Separation of classifications in different storeys	Not Applicable				x
C2.10	Separation of lift shafts	Applies			x	
C2.11	Stairways and lifts in one shaft	Not Applicable				x
C2.12	Separation of equipment	May Apply			x	
C2.13	Electricity supply system	Applies			x	
C2.14	Public corridors in Class 2 & 3 buildings	Not Applicable				x
PART C3 – PROTECTION OF OPENINGS						
C3.1	Application of Part	Noted				x
C3.2	Protection of openings in external walls	Applies			x	
C3.3	Separation of openings in different fire compartments	Not Applicable				x
C3.4	Acceptable methods of protection	Applies			x	
C3.5	Doorways in fire walls	Not Applicable				x
C3.6	Sliding fire doors	Not Applicable				x
C3.7	Protection of doorways in horizontal exits	Not Applicable				x
C3.8	Openings in fire isolated exits	Not Applicable				x
C3.9	Service penetrations in fire-isolated exits	Not Applicable				x
C3.10	Openings in fire isolated lift shafts	May Apply			x	

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
C3.11	Bounding construction Class 2, 3 and 4 buildings	Not Applicable				X
C3.12	Openings in floors for services	Not Applicable				X
C3.13	Openings in shafts	Not Applicable				X
C3.14	Repealed	Not Applicable				
C3.15	Openings for service installations	Not Applicable				X
C3.16	Construction Joints	Not Applicable				x
C3.17	Columns protected with lightweight construction to achieve an FRL	Not applicable (assumed).				x
SPEC C1.1 FIRE RESISTING CONSTRUCTION						
2	**General Requirements**					
2.1	Exposure to FSF	Applies			x	
2.2	Fire protection for a support of another part	Noted				x
2.3	Lintels	Applies			x	
2.4	Attachments not to impair fire resistance	Noted				x
2.5	General Concessions	Noted				x
2.6	Mezzanine floors: Concession	Not Applicable				x
2.7	Enclosure of shafts	Applies			x	
2.8	Carparks in Class 2 & 3 buildings	Not applicable				x
2.9	Residential aged care building: Concession	Not applicable				x
4	Type B Construction	Applies			x	
SECTION D – ACCESS AND EGRESS						
PART D1 – PROVISION FOR ESCAPE						
D1.1	Application	Applies			x	
D1.2	Number of exits required	Applies	x			
D1.3	When Fire isolated exits are required	Not Applicable				x
D1.4	Exit Travel Distances	Applies				
D1.5	Distances between	Not Applicable	x			x

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
	alternative exits					
D1.6	Dimensions of exits	Applies			x	
D1.7	Travel via fire isolated exits	Not Applicable				x
D1.8	External stairways in lieu of fire-isolated exits	Not applicable				x
D1.9	Travel by non-fire-isolated stairways or ramps	Not Applicable				x
D1.10	Discharge from exits	Applies			x	
D1.11	Horizontal exits	Not Applicable				x
D1.12	Non-Required stairways ramps and escalators	Not Applicable				x
D1.13	Number of persons accommodated	Applies	x			
D1.14	Measurement of distances	Noted				x
D1.15	Method of measurement	Noted				x
D1.16	Plant rooms & lift motor rooms: Concession	May Apply			x	
D1.17	Access to lift pits	Applies			x	
PART D2 – CONSTRUCTION OF EXITS						
D2.1	Application of Part	Noted.				
D2.2	Fire-Isolated stairways & ramps	Not Applicable			x	
D2.3	Non-Fire-Isolated stairways and ramps	Not Applicable to existing stairway				x
D2.4	Separation of rising and descending stair flights	Not Applicable				x
D2.5	Open access ramps and balconies	Not Applicable				x
D2.6	Smoke lobbies	Not Applicable				x
D2.7	Installations in exits and paths of travel	Applies			x	
D2.8	Enclosure of space under stairs and ramps	Applies			x	
D2.9	Width of stairways and ramps	Not Applicable to existing structures				x

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
D2.10	Pedestrian ramps	Not Applicable				x
D2.11	Fire Isolated passageways	Not Applicable				x
D2.12	Roof as open space	Not Applicable				x
D2.13	Treads and risers	Not Applicable to existing stairwell				x
D2.14	Landings	Not Applicable				x
D2.15	Thresholds	Not Applicable				x
D2.16	Balustrades	Not Applicable				x
D2.17	Handrails	Not Applicable				x
D2.18	Fixed platforms, walkways stairways and ladders	Not Applicable				x
D2.19	Doorways and doors	Applies			x	
D2.20	Swinging doors	Applies			x	
D2.21	Operation of latch	Applies			x	
D2.22	Re-entry from fire isolated exits	Not Applicable				x
D2.23	Signs on doors	Not Applicable				x
PART D3 – ACCESS FOR PEOPLE WITH A DISABILITY						
D3.1	General building access requirements	Applies			x	
D3.2	Access to buildings	Applies			x	
D3.3	Parts of buildings to be accessible	Applies			x	
D3.4	Exemptions	May Apply				x
D3.5	Accessible Car Parking	Applies			x	
D3.6	Signage	Applies			x	
D3.7	Hearing augmentation	Not Applicable				x
D3.8	Tactile Indicators	Applies			x	
D3.9	Wheelchair seating spaces in class 9b assembly buildings	Not Applicable				x
D3.10	Swimming pools	Not Applicable				x
D3.11	Ramps	Applies if new			x	
D3.12	Glazing on an accessway	Applies if new			x	

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
SECTION E – SERVICES AND EQUIPMENT						
PART E1 – FIRE FIGHTING EQUIPMENT						
E1.1	-	-				
E1.2	-	-				
E1.3	Fire Hydrants	Not Applicable				x
E1.4	Hose Reels	Not Applicable				x
E1.5	Sprinklers	Not Applicable				x
E1.6	Portable Extinguishers	Applies			x	
E1.7	Repealed	-				x
E1.8	Fire Control Centres	Not Applicable				x
E1.9	Fire precautions during construction	Applies			x	
E1.10	Provision for special hazards	Not applicable				x
PART E2 – SMOKE HAZARD MANAGEMENT						
E2.1	Application of Part	Noted				x
E2.2	General requirements (including Tables E2.2a & b)	Applies			x	
Table E2.2a	Fire-isolated exits	Not Applicable				x
Table E2.2a	Buildings more than 25m in effective height	Not Applicable				
Table E2.2a	Buildings NOT more than 25m in effective height	Applies – Smoke Alarms Required			x	
E2.3	Provision for special hazard	Not applicable				x
SPEC E2.2a	**SMOKE DETECTION AND ALARM SYSTEMS**	Applies			x	
PART E3 – LIFT INSTALLATIONS						
E3.1	Repealed	-				
E3.2	Stretcher facility in lifts	Not Applicable				x
E3.3	Warning against use of lifts in fire	Applies			x	
E3.4	Emergency lifts	Not Applicable				x
E3.5	Landings	Applies			x	

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
E3.6	Passenger lifts	Applies			x	
E3.7	Fire Service Controls	Not Applicable				x
E3.8	Aged Care Buildings	Not Applicable				x
PART E4 – EMERGENCY LIGHTING, EXIT SIGNS AND WARNING SYSTEMS						
E4.1	Repealed	-				
E4.2	Emergency Lighting	Applies			x	
E4.3	Measurement of distances	Noted.				x
E4.4	Design and operation of emergency lighting	Applies			x	
E4.5	Exit signs	Applies			x	
E4.6	Direction signs	Applies			x	
E4.7	Class 2 and 3 Buildings and Class 4 parts exemptions	Not Applicable				x
E4.8	Design and operation of exit signs	Applies			x	
E4.9	SISEP (EWIS) System	Not Applicable				x
SECTION F – HEALTH AND AMENITY						
PART F1 – DAMP & WEATHERPROOFING						
F1.1	Stormwater drainage	Applies			x	
F1.2	Repealed	-				
F1.3	Repealed	-				
F1.4	Repealed	-				
F1.5	Roof coverings	Applies			x	
F1.6	Sarking	Applies.			x	
F1.7	Waterproofing of wet areas in buildings	Applies			x	
F1.8	Repealed	-				x
F1.9	Damp-proofing	Required to comply			x	
F1.10	Damp-proofing of floors on the ground.	Required to comply			x	
F1.11	Provision of floor wastes	Not Applicable				x
F1.12	Sub-floor ventilation	Not applicable				x
F1.13	Glazed assemblies	Applies			x	

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
PART F2 – SANITARY & OTHER FACILITIES						
F2.1	Facilities in residential buildings	Not Applicable				x
F2.2	Calculation of number of occupants and fixtures	Not Applicable				x
F2.3	Facilities in Class 3 to 9 Buildings, Table F2.3	Applies			x	
F2.4	Accessible sanitary facilities	Applies			x	
F2.5	Construction of sanitary compartments	Required to comply			x	
F2.6	Interpretation: urinals and wash basins	Noted				x
F2.7	Microbial control	Clause F2.7 does not apply in NSW.				x
F2.8	Waste management	Not applicable				x
PART F3 – ROOM HEIGHTS						
F3.1	Height of rooms	Applies			x	
PART F4 – LIGHT & VENTILATION						
F4.1	Provision of Natural light	Applies			x	
F4.2	Methods and extent of natural lighting	Applies			x	
F4.3	Natural light borrowed from adjoining room	May Apply				x
F4.4	Artificial lighting	Applies			x	
F4.5	Ventilation of rooms	Applies			x	
F4.6	Natural ventilation	Applies			x	
F4.7	Ventilation borrowed from adjoining rooms	May Apply				x
F4.8	Restriction on position of water closets and urinals	Applies			x	
F4.9	Airlocks	Applies			x	
F4.10	Repealed	-				x
F4.11	Carparks	Applies			x	
F4.12	Kitchen local exhaust ventilation	Not Applicable				x
PART F5 – SOUND TRANSMISSION & INSTALLATION						
F5.0	Deemed-to-Satisfy	Noted				x

CLAUSE	REFERENCE	COMMENTS	Complies	Does Not Comply	Compliance Required	N/A or Information
	Provisions					
F5.1	Application of Part	Not Applicable			x	
F5.2	Determination of airborne sound insulation ratings	Not Applicable				x
F5.3	Determination of impact sound insulation ratings	Not Applicable				x
F5.4	Sound insulating rating of floors	Not Applicable				x
F5.5	Sound insulating rating of walls	Not Applicable				x
F5.6	Sound insulation rating of internal services	Not Applicable				x
F5.7	Sound insulation of pumps	Not Applicable				x
SECTION G – ANCILLARY PROVISIONS						
G1.1	Swimming pools	Not Applicable				x
G1.2	Coolrooms, strongrooms etc.	Not Applicable				x
G1.101	Provision for cleaning of windows	Not Applicable				x
G2	Heating Appliances	Not Applicable				x
G3	Atriums	Not Applicable				x
SECTION H – SPECIAL USE BUILDINGS – NOT APPLICABLE						x
SECTION I	**MAINTENANCE**	**ESSENTIAL FIRE SAFETY MEASURES MUST BE MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE ENVIRONMENTAL PLANNING & ASSESSMENT REGULATIONS 2000.**			x	
SECTION J	**ENERGY EFFICIENCY**	**NOT ASSESSED**			x	

Appendix B – SCOTT McGUFFICKE

Curriculum Vitae:-

- **Education:-**
    - Masters Degree in Public Health, University of New South Wales
    - Graduate Diploma of Building Surveying, University of Western Sydney
    - Graduate Certificate of Management, University of Western Sydney
    - Bachelor of Applied Science, Environmental Health, University of Western Sydney
    - Diploma of Access Consulting, Institute of Access Training Australia
    - Associate Diploma, Health & Building Surveying, NSW TAFE.
    - Certificate IV of Access Consulting, Institute of Access Training Australia

- **Positions Held:-**
    - Sergeant Health Inspector, Australian Army, 1978 -1986.
    - Captain Health Office (Army Reserve) 1987 - 1998
    - Health & Building Surveyor, Muswellbrook Shire Council, 1987 – 1993.
    - Senior Health & Building Surveyor, Cessnock City Council, 1993-1998.
    - Manager Environmental Health Services, Far West Area Health Service, Broken Hill, 1998-2000.
    - Director Planning, Building & Health, Christmas Island Shire Council, 2000-2001.
    - Senior Building Coordinator, Maitland City Council – 2001-2004
    - Company Director, AcroCert Pty Ltd, Maitland – 2004 to present

- **Accreditations:-**
    - National Accredited Building Surveyor, Australian Institute of Building Surveyors, Accreditation Number 7071.

  - National Accredited Access Consultant, Australian Association of Access Consultants, Accreditation Number 350
  - National Liveable Housing Registered Assessor, Number 1005

- **Memberships:-**
  - Australian Institute of Building Surveyors
  - Association of Accredited Certifiers
  - World Organisation of Building Officials
  - Master Builders Association
  - Housing Industry of Australia
  - Lake Macquarie Yacht Club
  - 2/4 Battalion Royal Australian Regiment Association

Attachment E – Arborist Report

Client	The client c/o BI Architects
Location	761 Darling Street Rozelle
Document Type	Arboricultural Impact Assessment
Date/Time	29th October 2018

The Ents Tree Consultancy.
Hayden Coulter
AQF Level 5 Diploma in Arboriculture
AQF Level 4 Advanced Certificate in Urban Horticulture

P.O Box 6019 Marrickville 2204
Mobile: 0422 265 128
ABN: 95 598 933136 theents@bigpond.net.au

INSTITUTE OF AUSTRALIAN CONSULTING ARBORICULTURISTS
IACA
ACCREDITED MEMBER™

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1. Contents

2 Introduction

2.1 On the 24th April 2018 BI Architects engaged The Ents Tree Consultancy on behalf of their client to complete an Arboricultural Impact Assessment for the proposed development site at 761 Darling Street Rozelle. This report will assess the nominated trees that are on and adjoining the site which may be impacted upon by the works or the associated activities. The client stated that the trees have been nominated to be inspected in relation to a proposed development, which involves the extension of the existing building to the rear and some minor landscape works. Consultation was sought with the client about the number and position of trees to be inspected prior to a survey being completed.

2.2 The site inspection of the nominated trees occurred on the 4th May 2018. An amended report has been requested by the Inner West Council after additional information was provided by the client. The client was not present for the site inspection but had previously issued a brief providing background information in regard to the trees adjoining the site. This tree report will detail the condition of the nominated trees, observe the proposed works and recommend removal or retention of the trees on or adjoining the site. Recommendations for removal or retention will be based on the proposed works and compatibility of the trees with the works as well as the trees hazard potential or ULE Rating. The report will also assess any potential impacts for trees nominated to be retained and attempt to remove or minimise them where possible. Recommended tree protection measures as set out in the Australian Standard AS4970 Protection of Trees on development sites will be nominated as required.

2.3 The purpose of this report is to assess the proposed works as well as the health and suitability of the trees nominated at the time of the inspection. The report will also provide tree management options for trees on the site in regard to the proposed works. The Tree Protection Guidelines will be discussed for all trees nominated to be retained. The information in this report will be based on the information presented by the client at the time of the inspection as well as the site inspection. The Australian Standard AS4970 Protection of Trees on development sites will be used as a guide to manage the site. Additional Tree Protection measures are included in appendix 8.

2.4 To achieve the objectives of the report, the trees will be assessed noting the species, size, general condition. The trees will be assessed using the internationally recognised VTA assessment method for above ground parts only. The trees characteristics and eventual size will be taken into consideration as will the trees position in relation to structures and hard scapes. Recommendations will be outlined in section 5 of the report. A detailed list of the trees surveyed will be provided in Appendix 2 of the report and an existing numerical system has be used to identify them for this report and future reference on this job site.

2.5 To complete the report the Proposed Plans provided by Brad Inwood Architects 01/07/17 were reviewed as was the proposed drainage plan provided by CW Consultants 18/12/17.

3 Methodology

3.1 The trees were assessed using the standard Visual Tree Assessment technique (VTA). The trees were assessed from the ground for the purpose of this report.

3.2 A Lufkin 6.5m diameter tape was used to obtain the Diameter at breast height (DBH) as recommended at 1.4 metres unless otherwise stated due to variations in the trees form.

3.3 The height of the trees was estimated and the spread of the trees canopy was paced out.

3.4 A Canon 5D Digital camera with a 24-105mm lens was used to take all photographs in this report.

3.5 The ULE rating system has been used as a guide to assist in determining the Useful Life Expectancy of the trees surveyed. Refer to Appendices 1.

4 Discussion

4.1 The trees nominated to be assessed are located adjoining the property at 761 Darling Street Rozelle. Some of the trees are significant in the immediate landscape and some are likely to be considered important in the local areas landscape in terms of amenity and function. The trees are located on partially sheltered site with some protection from surrounding structures, trees and topography. The soil on site appears to be a sandy loam that has been disturbed previously when the existing building and hardscapes were built and the site was cleared.

4.2 Based on the information provided by the client, the works involve the internal renovation of the existing building and a small extension to the rear for the installation of a lift. To achieve the works, no trees will need to be removed. All of the trees on and adjoining the site are proposed to be retained and protected for the duration of the works. The trees nominated to be retained, will be retained using sympathetic building activities to allow the works to proceed. Options for the managing the tree nominated to be retained adjoining the proposed works site will be provided. Any tree that is nominated to be retained on or adjoining site will be kept in good condition for the duration of the works using the Australian Standard AS4970 2009 Protection of trees on development sites for the basis of all tree management practices.

4.3 **Trees 1 & 2** are trees located to the front of the site in the streetscape. The trees are proposed to be retained throughout the works. There are minor works proposed to occur within the Tree Protection Zones of the trees. The works will not impact upon the trees projected structural root zones and will impact upon less than 10% of the trees projected tree protection zone. The trees roots are covered in bitumen and paving, protecting them from impacts. The main concern for these trees are vehicular impacts on their trunks associated with access to the site.

4.4 **Tree Protection Specification Trees 1 & 2.** To protect the trees vascular tissue, trunk wraps will be required. The trunk wraps are to be installed around trees trunk from ground level to 1.8m on the trunk. The trunk wraps should consist of a layer of padded material to protect the trees vascular tissue from damage. Vertical timber slats will be fastened to the padding using an adjustable strap or tightening mechanism. The timber slats must be approximately 1.8m in height for the trunk and if required, custom made for branches. The 1.8m timber slats will be approximately 50mm x 70mm and cover the trunk with a maximum spacing of 25mm. At no time should the timber slats or wire come in contact with the tree and no fixtures are permitted on the tree. At no time should the tree protection material be removed during the works period. Refer to the tree protection plan in appendix 4a.

4.5 **Tree 3** is a self-sown weed species and is leaning on the boundary wall causing damage to it. This tree should be removed despite the works to prevent further damages. This tree located to the rear of the site on the adjoining property, 2m over the boundary. If retained, this tree will have a disturbance to or at the edge of its projected structural root zone for a proposed service trench. The trench is proposed to be on the compression side behind a large stone wall which is likely to have a significant footing hindering root growth in that area. The tree is also leaning on the boundary wall, further reducing the likelihood of the presence of any structural roots. To excavate the service trench at the edge of or within the structural root zone, hand excavation will be required under the supervision of the AQF level 5 site Arborist. No roots 50mm+ should be severed and the pipe should be installed under the trees roots.

4.6 A disturbance of 25% is also proposed for the trees projected tree protection zone. This level of disturbance is less not likely to impact upon the tree for several reasons. The wall and associated footing presents a significant barrier for root growth, the existing area proposed to be trenched is under concrete lessoning the amount of roots present and this tree is a semi mature vigorous tree that will cope with the proposed impacts.

4.7 **Tree Protection Specification Tree 3.** As the boundary wall is nominated to remain in place, no additional tree protection fencing will be required. If the fence is proposed to be removed temporarily, tree protection will be required. The tree protection will need to be 1.8m chain mesh fencing installed along the boundary on the clients site. At no time should the tree protection material be removed during the works period. Refer to the tree protection plan in appendix 4a. All works will occur off the existing concrete once cut open. The trenches are to be excavated by hand within the structural root zone under the supervision of the AQF level 5 site Arborist who will record any roots severed 50mm+.

4.8 **Tree Pruning Specification of Tree 3**. Tree 3 will require some minor reduction pruning to achieve clearance for the works. The reduction pruning will be completed in accordance with clause 7.3.2 of the Australian Standard for the Pruning of Amenity Trees AS4373. The pruning will be of a 70mm third order branch 9m to the south-east, reducing it in length to an appropriate branch union or collar. The branches pruned will be less than 10% of the trees crown. All works must be completed by an AQF level 3 Arborist in accordance with The Australian Standard for the Pruning of Amenity Trees AS4373.

4.9 **Tree 4** is a large and significant tree located 10m over the existing boundary fence on the adjoining property. This tree will have no disturbance to its structural root zone and a minor disturbance (less than 10%) to its projected tree protection zone. The proposed trench will also be behind a large stone wall which is likely to have a significant footing hindering root growth in that area. This tree species may have adventitious roots within the area proposed to be excavated, however pruning these roots will not be an issue if completed by the AQF level 5 Arborist. There are no impacts from the works anticipated for this tree during the short or long term.

4.10 **Tree Protection Specification Tree 4.** As the boundary wall is nominated to remain in place, no additional tree protection fencing will be required. If the fence is proposed to be removed temporarily, tree protection will be required. The tree protection will need to be 1.8m chain mesh fencing installed along the boundary on the clients site. At no time should the tree protection material be removed during the works period. Refer to the tree protection plan in appendix 4a. All works will occur off the existing concrete once cut open. The excavation within the trenches are to be completed under the supervision of the AQF level 5 site Arborist who will record any roots 50mm+ that are encountered and sever them cleanly.

4.11 **Tree Pruning Specification of Tree 4**. Tree 4 will require some minor reduction pruning to achieve clearance for the works. The reduction pruning will be completed in accordance with clause 7.3.2 of the Australian Standard for the Pruning of Amenity Trees AS4373. The pruning will be of a 90mm third order branch 10m to the south-east, reducing the in length to an appropriate branch union or collar. Another limb that will require pruning is a 50mm branch to the south of the tree at 7m. This limb will be reduced to an appropriate branch union. The branches pruned will be less than 5% of the trees crown. All works must be completed by an AQF level 3 Arborist in accordance with The Australian Standard for the Pruning of Amenity Trees AS4373.

4.12 It is recommended that construction proceeds using the Australian Standard AS4970 2009 Protection of trees on development sites as a basis for tree protection on the site as well as the site-specific instructions listed in section 5 of this report. Additional Tree Protection measures are listed in Appendix 8 of the report to assist in the care of the trees on site.

5 Recommendations

5.1 After reviewing the site and the information provided by the client it is my recommendation that the works proceed with the following actions,

5.2 To allow the works to proceed no trees are proposed to be removed. Trees 1 to 4 are proposed to be retained and protected for the duration of the works. The installation of the tree protection measures in section 4 of the report will assist in reducing the disturbance to the trees nominated to be retained. Minor pruning of trees 3 & 4 will be required to achieve clearance for the scaffolding which will provide building clearance for the new structure. Any pruning completed will need to be completed in accordance with the pruning specifications listed in section 4 of the report. All pruning works must be completed by an AQF level 3 Arborist in accordance with The Australian Standard for the Pruning of Amenity Trees AS4373.

5.3 It is recommended that all tree protection measures are in place as described in section 4 of the report prior to the commencement of any works. The AQF level 5 site Arborist will need to sign off on the tree protection measures prior to works commencing. All works within or at the edge of any structural root zone of any tree will need to be supervised and recorded by the AQF level 5 site Arborist. Permission to sever 50mm+ roots within the structural root zone of tree 3 will require written consent from the local council prior to cutting. It is the client's responsibility to arrange site inspections and co-ordinate the works with the AQF level 5 site Arborist.

5.4 Monthly inspections and reporting is required to ensure the trees are adequately protected. At the end of the works period the tree will be inspected by an AQF 5 Arborist to determine if the tree has been maintained adequately. If this is done the compliance certificate will be issued. If trees have been damaged or breaches of the Australian Standards have occurred council will be contacted for further advice.

5.5 It is recommended that construction proceeds using the Australian Standard AS4970 2009 Protection of trees on development sites as a basis for tree protection on the site as well as the site-specific instructions listed in section 5 of this report. Additional Tree Protection measures are listed in Appendix 7 of the report to assist in the care of the trees on site.

Please do not hesitate to call ***0422 265 128*** if you have any questions regarding the contents of this report.

Regards

Hayden Coulter
Diploma in Arboriculture
Advanced Certificate in Urban Horticulture

The Ents Tree Consultancy. ABN: 95 598 933136 theents@bigpond.net.au

Appendix 1 ULE Rating

Useful Life Expectancy (ULE): Useful life expectancy refers to an expected period of time the tree can be retained within the landscape before its amenity value declines to a point where it may detract from the appearance of the landscape and/or becomes potentially hazardous to people and/or property. ULE values consider tree species, current age, health, structure and location. ULE values are based on the tree at the time of assessment and do not consider future changes to the tree's location and environment which may influence the ULE value.

Category rating:	Category definition in years:	Category rating:
1	> 40 Years	High
2	15 to 40 Years	Medium
3	10-20 Years	Low
4	0 Years	Dead

Appendix 2 Assessment of Trees

Tree No	Species	Height (m)	DBH* & DAC**	Canopy Spread (m)	TPZ ***	Health #	Structure #	ULE Rating ****	Landscape Rating +	Stars Rating +	Observations and comments
1	*Callistemon viminalis* Bottlebrush	8	4 x .15 DAC .45	6	5.5 SRZ 2.35	A	A	2	M	M	A council street tree located to the front of the site
2	*Glochidion ferdinandi* Cheese Tree	14	.60 DAC .70	13	7.2 SRZ 2.85	A	A	1	M	M	
3	*Celtis australis* Chinese Hackberry	14	2 x .30 DAC .51	10	5 SRZ 2.6	A	Ba	2	L	L	This tree is leaning on the wall and is damaging it. The wall has become part of the trees structure and is likely to fail if the wall is removed. This tree should be removed.
4	*Ficus macrophylla* Moreton Bay Fig	22	3.05 DAC 3.45	23	15 SRZ 4.5	A	A	1	H	H	This tree is mature and significant, located approximately 8m over the boundary.

Explanatory Notes for Table

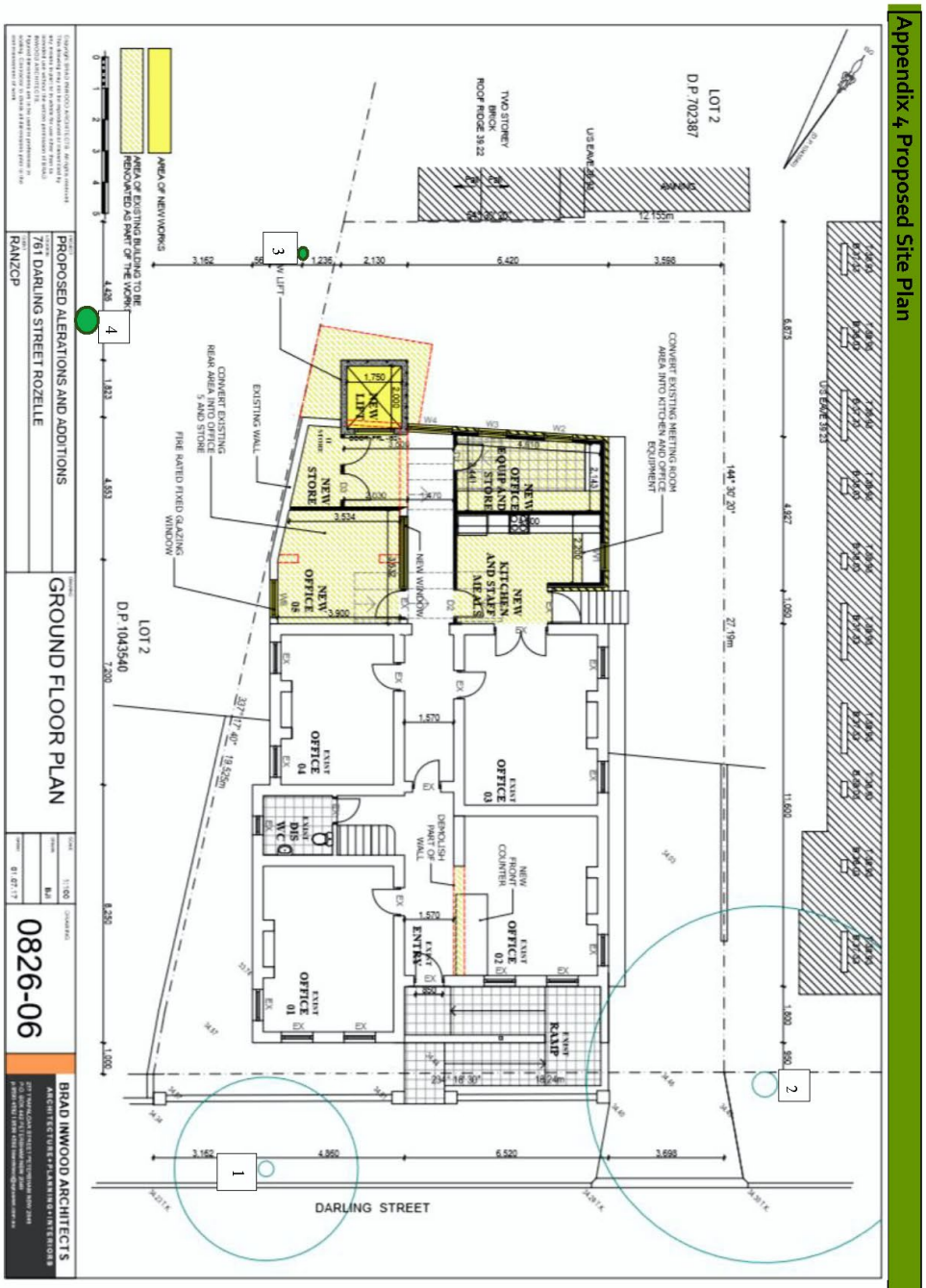
- *Dbh = Diameter of trunk at breast height.
- ** DAC = Diameter above the root collar used to measure the Structural Root Zone (SRZ).
- ***TPZ is the recommended TPZ 12x the DBH at 1.4m, SRZ is the trees structural root zone. Refer to AS4970 for details.
- **** ULE Explanation can be found in Appendix 1.
- + IACA Landscape value and S.T.A.R.S Rating system. Refer to Appendix 5
- # Health and Structure values represented above are P = poor, BA = Below Average, A = Average, G = Good

Appendix 3 Images of Tree

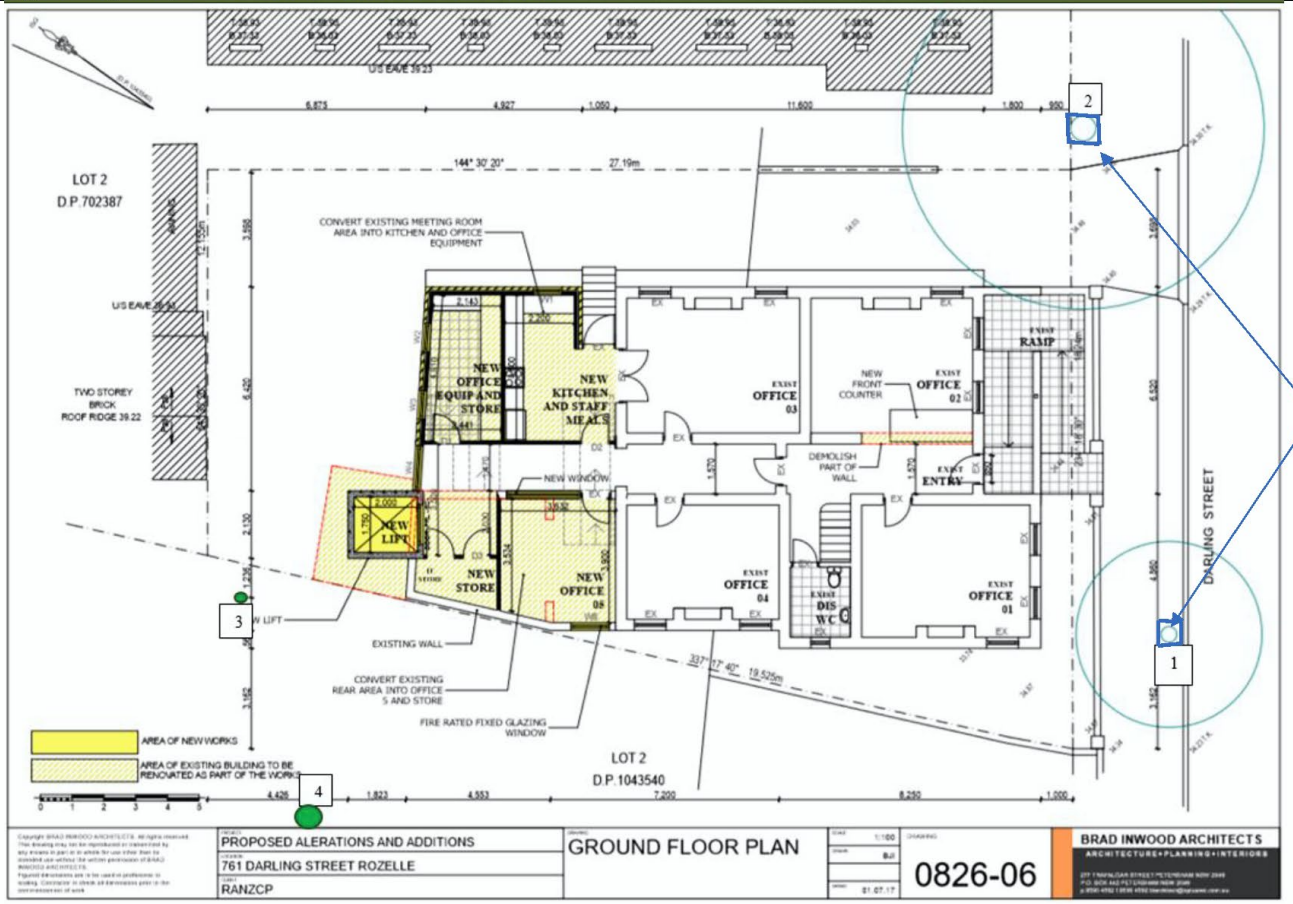
Tree 1 pictured above left. Tree 2 pictured above centre to the front of the site. Image 3 above rigth shows tree 2 and the proximity to the driveway for access. Image 4 below left shows trees 3 & 4 to the rear of the site on the adjoining site. Image 5 shows tree 3 leaning on the boundary wall, pushing it out of alignment. Image 6 below right shows tree 4 10m over the fence on the adjoining property. Image 7 below left shows tree 3 and the branch that is required to be removed to the collar. Image 8 shows the branches that require reduction to achieve clearance for the works and the building long term.

8

Appendix 4 Proposed Site Plan



Appendix 4a Proposed Site Plan & Tree Protection Plan



The blue lines represent the position of the trunk wraps that will separate the trees trunk from the works.

Appendix 5 Legend for S.T.A.R.S matrix assessment

IACA Significance of a Tree, Assessment Rating System (STARS) © (IACA 2010)©

In the development of this document IACA acknowledges the contribution and original concept of the Footprint Green Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd in June 2001.

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the *Tree Significance - Assessment Criteria* and *Tree Retention Value - Priority Matrix*, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of *High*, *Medium* and *Low* significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined.

Tree Significance - Assessment Criteria

1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa *in situ* - tree is appropriate to the site conditions.

2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa *in situ*.

3. Low Significance in landscape

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa *in situ* - tree is inappropriate to the site conditions,
- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
- The tree has a wound or defect that has potential to become structurally unsound.

Environmental Pest / Noxious Weed Species

- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
- The tree is a declared noxious weed by legislation.

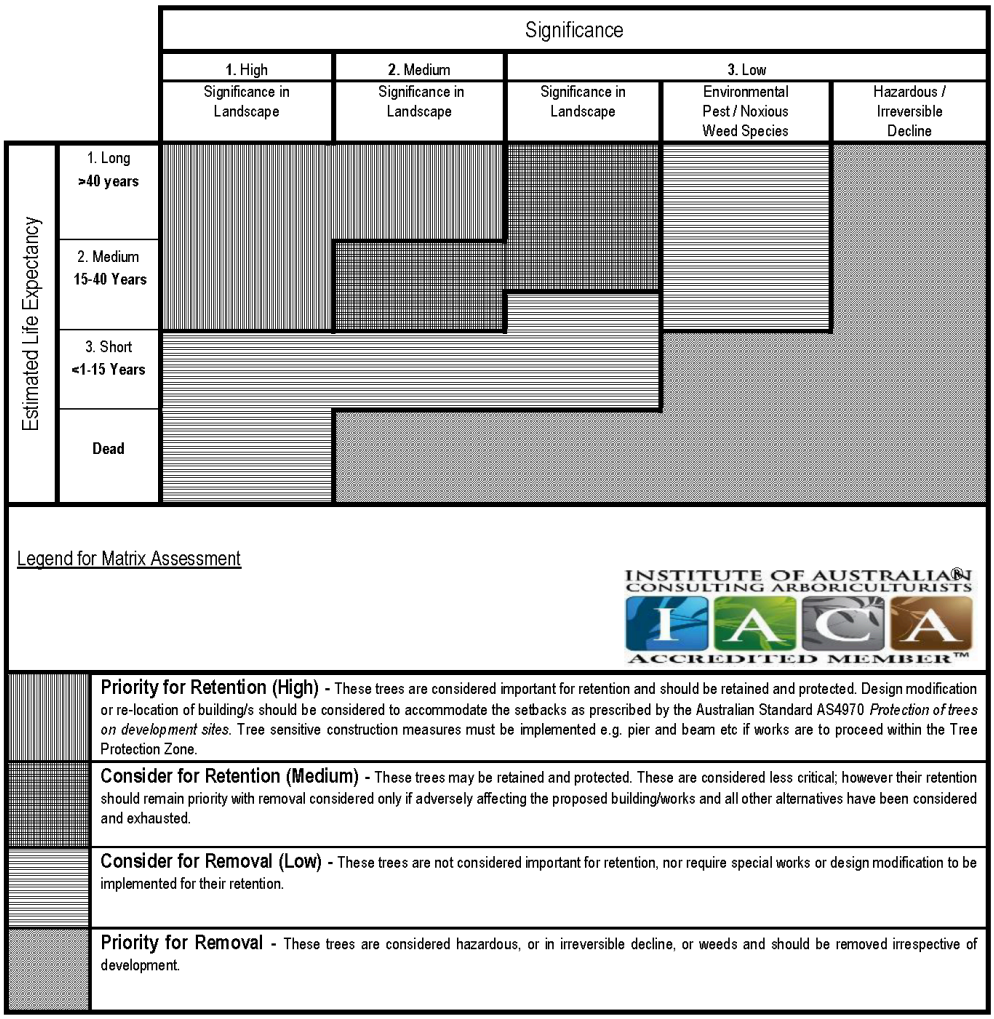
Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous,
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

The tree is to have a minimum of three (3) criteria in a category to be classified in that group.

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g. hedge.

Table 1.0 Tree Retention Value - Priority Matrix.



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Australia ICOMOS Inc. 1999, *The Burra Charter – The Australian ICOMOS Charter for Places of Cultural Significance*, International Council of Monuments and Sites, www.icomos.org/australia

Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.

Footprint Green Pty Ltd 2001, *Footprint Green Tree Significance & Retention Value Matrix*, Avalon, NSW Australia, www.footprintgreen.com.au

Appendix 6 References

Australia ICOMOS Inc. 1999, *The Burra Charter – The Australian ICOMOS Charter for Places of Cultural Significance*, International Council of Monuments and Sites, www.icomos.org/australia

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Appendix 7 Glossary of Terms	
Abiotic	Nonliving
Anthracnose	a fungal disease causing dead areas on the leaves, buds, stems.
Arboriculture	The science and art of caring for trees, shrubs and other woody plants in landscape settings.
Barrier Zone	Protective boundary formed in new wood in response to wounding or other injury.
Biotic	Alive, pertaining to living organisms.
Branch attachment	The structural union of a lateral branch.
Callus	Undifferentiated tissue produced in response to wounding.
Canker	A dead spot or necrotic lesion that is caused by a bark inhabiting organism/pathogen.
Cavity	an open wound characterized by the presence of decay resulting in a hollow.
Collar	the ring of tissue that surrounds the lateral branch at its point of attachment.
Compartmentalization	A physiological process that creates the chemical and physical boundaries that act to limit the spread of disease and decay organisms.
Compression wood	A type of reaction wood that forms on the underside of branches which tends to maintain a branch angle of growth.
Crown	The above ground parts of the tree, including the trunk.
DBH	The diameter of a trees trunk measured at 1.4m.
Decay	Process of degradation of woody tissues by fungi and bacteria through the decomposition of cellulose and lignin.
Decline	Progressive decrease in health of organs or the entire plant usually caused by a series of interacting factors.
Drip line	The width of the crown, as measured by the lateral extent of the foliage.
Epicormic shoot	a shoot that arises from latent or adventitious buds that occur on stems, branches or the bases of trees.
Included bark	Pattern of development at branch junctions where bark is turned inward, rather than pushed out; contrast with the branch nark ridge.
Mortality Spiral	The sequence of events describing a change in the trees health from vigorous to declining to death.
Photosynthesis	The transformation in the presence of chlorophyll and light, of carbon dioxide from (the air) and water (primarily from soil) into a simple carbohydrate and oxygen.
Pruning	systematic removal of branches of a plant usually a woody perennial.
Reaction wood	Specialized secondary xylem that develops in response to a lean or similar mechanical stress to restore the stem to vertical.
Taper	The change in diameter over the length of trunks and branches. Important to mechanical support.
Tension wood	A type of reaction wood that trees form on the upper side of branches and stems and roots.
VTA	Visual Tree Assessment is a method of evaluating structural defects and stability in trees.
Wound	Any injury that induces a compartmentalization response.

Appendix 8, The Ents Tree Consultancy Tree Protection Guidelines

Definitions

A. **Tree Protection Zone (TPZ),** The TPZ is divided into 2 areas. 1 The Structural Root Zone delineated by an area nominated in table section 4 of the report and is assumed to contain most structural roots. The Tree Protection Zone that is twelve times the diameter of the tree trunk which is used to gauge the amount of feeder roots. No machinery works are permitted in these areas unless specified in this report or without written approval from the Council or the Arborist employed for this job site.

B. **Qualified Arborist**, for supervision of works and reports level 5. For carrying out tree works level 3 Levels are as recognised by the Australian training framework.

Standards, AS4970 2009, Protection of Trees on development sites. AS 4373: 1996, The pruning of amenity trees.

Tree Protection Generally

1. Prior to works commencing erect a 1800mm chain mesh fence to protect the trees trunk at 12x Dbh or as specified in this report. The Tree Protection Zones as nominated should be marked with line marking paint and observed as an area free from machinery for the duration of the works unless stated otherwise in the accompanying report. Do not remove, alter or relocate without the approval of the Council or the Arborist employed for this site.

2. Trees to be protected in the works contract are items entrusted to the Contractor /owner by the Council for the purpose of carrying out the work under the Contract. The Contractor/owner has obligations to protect these trees as part of the care of the work in the contract conditions.

3. Prior to commencing work on Site confirm with the Council all trees to be protected for the duration of the Works. Confirm also all access and haulage routes, storage areas, tree protection measures and work procedures. Ensure that the protection measures are in place prior to commencing work.

4. Use suitably qualified Arborist (level 5) to supervise earthworks or activities within the Structural Root Zone of tree, Do not severe roots 50mm or greater, which may cause damage to or affect the health of trees. Pruning of trees by the contractor is not permitted. If pruning works are required a suitably qualified (Minimum level 3) arborist will complete all works in the crown. All root pruning must be completed and documented by the level 5 site arborist.

5. Ensure construction trailers, vehicles and equipment do not come in contact with any tree at any time. Do not locate storage areas within the nominated Tree Protection Zone. Do not deposit or store materials, spoil, contaminants, and waste or washout water within Tree Protection Zones.

6. Take all reasonable precautions to protect trees to be retained on site from damage and decline, maintaining their health during the Contract. Implement recognised best practice industry standards to satisfy horticultural requirements for tree care.

7. Assess and monitor water stress in relation to trees on site. This is of particular importance if earthworks have occurred. Apply sufficient water to the trees on site as required to keep the trees healthy. Immediately report to the Council and site arborist, any trees on site that are injured, damaged or are in decline.

NOTE: Failure to comply with any part of these tree protection guidelines or the Australian standard AS4970 or AS4373 will result in the party breaching the Tree Protection Guidelines taking responsibility for all associated consequences.

Appendix 9 Curriculum Vitae

Education and Qualifications

- Currently completing Graduate Certificate in Arboriculture (Level 8)
- Arboriculture Australia 3 Day Tree Anatomy Workshop 2015
- QTRA basic certificate 2014, QTRA Advanced Certificate 2016
- TRAQ Qualification 2014
- 2003 Diploma of Arboriculture (AQF Cert 5), Ryde TAFE. Distinction Pass.
- Barrell Tree Care Workshop- Trees on Construction Sites (Brisbane 2005)
- Tree Logic seminar- Urban Tree Risk Management (Sydney 2005)
- Tree Pathology and Wood Decay Seminar Sydney (2004)
- Excelsior Training Claus Mattheck (Sydney 2001)
- 2000 Tree Climbing Course (AQF Cert 2), Ryde TAFE.
- 1999 Advanced Certificate in Urban Horticulture, (AQF Cert 4), Ryde TAFE. Distinction Pass.
- 1995 Greenkeepers Trade Certificate (AQF 3) Ryde TAFE. Credit Pass.
- 1991 Higher School Certificate.

Professional Membership Accreditation

- **Institute of Australian Consulting Arborists ACM 0482014**
- **Arboriculture Australia Member number 2527**

Presentation of Scientific Papers

- **Managing Mature Trees NAAA (Sydney 2000), Presented a Paper "Habitat Value of Mature Trees"**

Industry Experience

- **2004 to Date, Sole Trader, The Ents Tree Consultancy.** Writing of tree reports for development applications, master plans, hazard evaluations, tree management plans and expert witness reports. Hazard assessments, tree surveys and consultations. Clients include The Royal Botanic Gardens Sydney, UNSW Master Planning Works including SIRF building, Tyree Building, DP sports field redevelopment, Sydney University Mays Green Precinct, Taronga Zoo Coastline Precinct, Capital Insight, Campbelltown Hospital Redevelopment, Parramatta Park Trust multiple jobs, Woollahra Council multiple jobs and many other jobs.
- **2003 to 2008, Arborist University of New South Wales**. Survey all trees on site, developed a Tree Management Database. Minimise hazard potential of all trees on site through evaluation and works. Generate and prioritise works and tree assessment-based areas usage, tree conditions and staff required. Development of UNSW Tree Protection Guidelines for master planning works. Acting Supervisor December 2006 to May 2007.
- **2003 Tree management Officer Randwick Council**. Liaise with public to explain and enforce the councils Tree Preservation order. Management of internal staff and contractors. Project management and co-ordination of street tree planting and maintenance.
- **1999 to 2003 Animal Food Production Manager and Arborist.** Management of Koala Food Plantation, Management of animal food supply registry for herbivores/omnivores. Coordination of staff contractors and volunteers. Maintain and manage tree management database, complete tree works within zoo grounds and at zoo owned plantations. Acting supervisor 6-month period 2002 for grounds department and asset management trade team.