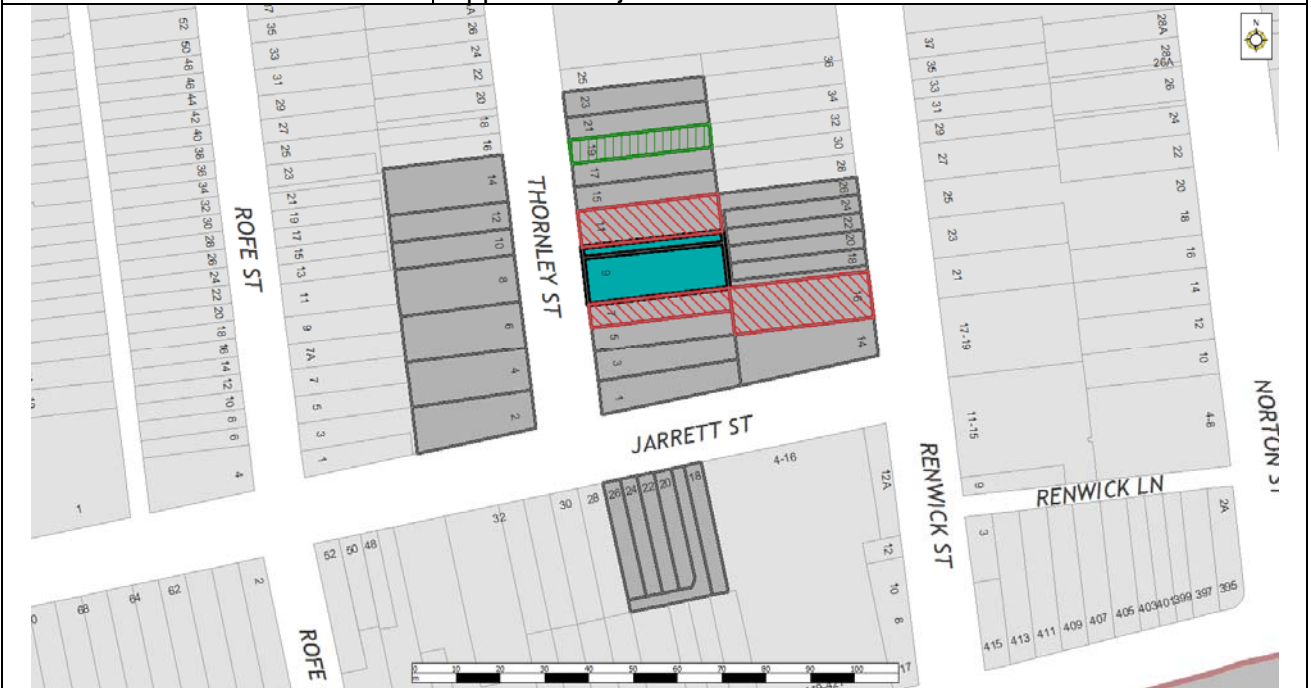




INNER WEST COUNCIL

DEVELOPMENT ASSESSMENT REPORT

Application No.	D/2016/497
Address	9 Thornley Street, LEICHHARDT NSW 2040
Proposal	Demolition of existing dwelling and swimming pool, Torrens title subdivision into two lots & construction of two new dwellings.
Date of Lodgement	27 September 2016
Applicant	Rogers
Owner	Mr T Rogers
Number of Submissions	Four (4) in objection One (1) in support
Value of works	\$1,365,000
Reason for determination at Planning Panel	Clause 4.6 variation exceeds officer delegation
Main Issues	Floor Space Ratio, Site Layout and Building Design, Visual Privacy
Recommendation	Approval subject to draft conditions



LOCALITY MAP

Subject Site		Objectors		↑ N
Notified Area		Supporters		

1. Executive Summary

This report is an assessment of the application submitted to Council for the demolition of an existing dwelling and swimming pool, Torrens title subdivision into two lots and construction of two new dwellings at 9 Thornley Street, Leichhardt. The application was notified to surrounding properties and five [5] submissions were received.

The main issues that have arisen from the application include:

- Departure from the prescribed Floor Space Ratio (FSR) Development Standard;
- Site Layout and Building Design; &
- Visual Privacy.

The non-compliances are acceptable given the proposal does not unreasonably impact the existing streetscape or affect the amenity of the surrounding residential properties (subject to conditions) and therefore the application is recommended for approval.

2. Proposal

The Application seeks consent for demolition of an existing single dwelling and swimming pool, Torrens title subdivision into two lots and construction of two new three storey semi-detached dwellings. Proposed works further detailed as follows;

Demolition

- Demolition of the current dwelling, carport, swimming pool and associated structures
- Enclosure of existing vehicular crossover

Subdivision

- Torrens title subdivision into two lots of equal (204.8sqm) lot sizes

Two new three storey semi-detached dwellings consisting of:

- Ground floor: Bedroom, Laundry, WC, Kitchen, Dining and Living
- First Floor: Bedroom with small balcony, Bathroom, Master Bedroom with ensuite and small balcony
- Dormer Level: Two x Bedrooms

3. Site Description

The subject site is located on the eastern side of Thornley Street. The site consists of two rectangular shaped allotments with a total area of 409.6m² and is legally described as Lot 35 DP612 and Lot 1 DP121624. The site is generally flat.

The site has a frontage to Thornley Street of 12.8 metres. The site supports a single storey brick residential dwelling, carport and an in ground swimming pool. The adjoining properties support a two storey brick townhouse to the north and two storey brick townhouse to the south.

The property is located within a conservation area and is identified as being within the ANEF 20-25 contour.

The following trees are located on the site and proposed to be removed;

- Camellia sasanqua (Camellia) located at the front of the property.
- Tibouchina spp. (Tibouchina) located at the rear of the property.
- Magnolia x soulangiana (Saucer Magnolia) located at the rear of the property.

- Plumeria acutifolia (Frangipani) located at the rear of the property.

4. Background

4(a) Site history

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

Subject Site

Application	Proposal	Decision & Date
PREDA/2016/95	Proposed subdivision into two lots, Proposed demolition of existing dwelling, Proposed two new dwellings.	Advice Letter Issued 16/06/2016
PREDA/2016/134	Proposed subdivision into two lots. Proposed demolition of existing dwelling. Proposed two new dwellings.	Advice Letter Issued 23/08/2016

Surrounding properties

None recent/relevant.

4(b) Application history

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

Date	Discussion / Letter/ Additional Information
1 November 2016	Council wrote to the Applicant seeking additional information/amended plans summarised as follows; <ul style="list-style-type: none"> • Capital Investment Value (CIV) not to current costing • Heritage Conservation/Streetscape (front dormers, fence, glazing, materials and finishes) • Stormwater Management (OSD design) • Solar Access Diagrams (inadequate information)
8 November 2016	Applicant submitted additional information/amended plans in response to planning and heritage matters summarised above.
19 January 2017	Applicant submitted amended stormwater plan with revised OSD design.

5. Assessment

The following is a summary of the assessment of the application in accordance with Section 79C 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 (Building Sustainability Index: BASIX) 2004
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

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. LDCP 2013 provides controls and guidelines for remediation works. SEPP 55 requires that remediation works must be carried out in accordance with a Remediation Action Plan (RAP) as approved by the consent authority and any guidelines enforced under the Contaminated Land Management Act 1997.

The site has not been used in the past for activities which could have potentially contaminated the site. It is considered that the site will not require remediation in accordance with SEPP 55.

5(a)(ii) State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004

A BASIX Certificate was submitted with the application which satisfactorily addresses the requirements of the SEPP (BASIX).

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 environment, 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 2.6 – Subdivision Requirements
- Clause 2.7 – Demolition Requires Development Consent
- Clause 4.1 – Minimum subdivision Lot size
- Clause 4.3A(3)(a) – Landscaped Area for residential development in Zone R1
- Clause 4.3A(3)(b) – Site Coverage for residential development in Zone R1
- Clause 4.4 – Floor Space Ratio
- Clause 4.5 – Calculation of floor space ratio and site area
- Clause 4.6 – Exceptions to development standards
- Clause 5.9 – Preservation of trees or vegetation
- Clause 5.10 – Heritage Conservation
- Clause 6.1 – Acid Sulphate Soils
- Clause 6.2 – Earthworks
- Clause 6.4 – Stormwater management
- Clause 6.8 – Development in areas subject to aircraft noise

The following table provides an assessment of the application against the development standards for each lot (identical ratios):

9 and 9A Thornley Street:

Standard (maximum)	Required	Proposal	% of non-compliance	Compliance
Floor Space Ratio	0.5:1 max or 102.4%	0.91:1 or 188.24m ²	83.83	No
Landscape Area	15% min or 30.72m ²	17.7% or 36.37m ²	N/A	Yes
Site Coverage	60% max or 122.8m ²	50.2% or 103m ²	N/A	Yes
Subdivision	200	204.8	N/A	Yes

The following provides further discussion of the relevant issues:

Clause 4.6 Exceptions to Development Standards

As outlined in table above, the proposal results in a breach of the following development standard:

- Clause 4.4 – Floor Space Ratio (FSR)

Clause 4.6(2) specifies that Development consent may be granted for development even though the development would contravene a development standard.

1. *The objectives of this clause are as follows:*
 - (a) *to provide an appropriate degree of flexibility in applying certain development standards to particular development,*
 - (b) *to achieve better outcomes for and from development by allowing flexibility in particular circumstances.*
2. *Development consent may be granted for development even though the development would contravene a development standard imposed by this or any other environmental planning instrument.*

Comment: The application requests that development consent be granted for the development even though the proposal will contravene the maximum floor space ratio development standards prescribed under Part 4 of Leichhardt Local Environmental Plan 2013.

3. *Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:*
 - (a) *that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and*
 - (b) *that there are sufficient environmental planning grounds to justify contravening the development standard.*

Comment: The applicant has submitted a written request outlining why compliance with the development standards is unnecessary and unreasonable in this case, and has provided sufficient environmental planning grounds to justify a variation to the development standard:

- The proposed development does not result in any significant loss of amenity, privacy or sunlight to neighbouring properties.
- The FSR controls are inconsistently applied in this area and are impractical for sites of this size and proportion.

- The new proposal increases amenity by providing two new family homes in place of one.
 - In order to improve the environmental sustainability of our cities, it is necessary to increase urban density' where appropriate.
- (4) *Development consent must not be granted for development that contravenes a development standard unless:*
- (a) *the consent authority is satisfied that:*
- (i) *the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and*
 - (ii) *the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and*
- (b) *the concurrence of the Secretary has been obtained.*

Comment: The proposal is considered to satisfactorily demonstrate that application of the FSR development standard is unreasonable and unnecessary in this instance, and that sufficient environmental planning grounds exist to justify a variation to the above development standards. As discussed in detail further in the report, the proposed dwellings do not result in any unreasonable amenity impacts to the surrounding residential properties in terms of visual and acoustic privacy, view sharing or solar access. The proposed dwellings are generally consistent with the distinctive neighbourhood controls, and do not result in an overbearing development. Accordingly the application in its current form is consistent with the objectives of the residential zoning and FSR development standard, and is therefore supported in this regard.

Concurrence from the Secretary was not required in this instance.

- (5) *In deciding whether to grant concurrence, the Secretary must consider:*
- (a) *whether contravention of the development standard raises any matter of significance for State or regional environmental planning, and*

The granting of concurrence to the proposed variation of the development standard will not raise any issues of state or regional planning significance.

- (b) *the public benefit of maintaining the development standard, and*

Comment: The proposed variation to the development standard will not compromise the long term strategic outcomes of the planning controls to the extent that a negative public benefit will result. In this regard, there is no material public benefit to the enforcing of the development standards.

- (c) *any other matters required to be taken into consideration by the Secretary before granting concurrence.*

Comment: No other matters are required to be considered before granting concurrence.

5(b) Draft Environmental Planning Instruments

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

- Draft Leichhardt Local Environment Plan 2013 (Housekeeping amendment)

Draft Leichhardt Local Environment Plan 2013 (Housekeeping amendment)

The Draft Leichhardt Local Environment Plan 2013 – (Housekeeping amendment) commenced exhibition on 1 September 2015 and is therefore a matter for consideration under Section 79C of the Environmental Planning and Assessment Act 1979.

The items included in the draft LEP Housekeeping Amendment are:

- i. Amendment of Clause 6.8 (Development in areas subject to aircraft noise) to allow Council to exercise greater discretion in relation to noise attenuation for particular developments.
- ii. Amendment to the Land Use Table for the RE1 Public Recreation zone to allow restaurants and cafes as permissible with consent.
- iii. Amendment of Schedule 1 Additional Permitted Uses to include 44-46 Smith Street, Rozelle (Lots 1 & 2 DP 782330, Lot 1 DP 782348 & Lot 1 DP 228261).
- iv. Amendment to the Heritage Map Sheet 007 to correctly identify the location of State listed Balmain Hospital Main Building (Heritage Item No. I138) within the Balmain Hospital Complex (Lot 11 DP 1006912 & Lot 1 DP 1012848).
- v. Rezone portions of 77 Taylor Street and 148 Wigram Road, Annandale (Part Lot 1 DP 1185598 and Lot 2 DP 1185598) from R1 General Residential to RE1 Public Recreation and associated mapping amendments.
- vi. Rezone part of Leichhardt Park (part of Lot 6643 DP 1137663) that is adjacent to the western boundary of 9 Bayview Street, Lilyfield from R1 General Residential to RE1 Public Recreation and associated mapping amendments.

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	Yes
B3.1 Social Impact Assessment	N/A
B3.2 Events and Activities in the Public Domain (Special Events)	N/A
Part C	
C1.0 General Provisions	Yes
C1.1 Site and Context Analysis	Yes
C1.2 Demolition	Yes
C1.3 Alterations and additions	N/A
C1.4 Heritage Conservation Areas and Heritage Items	Yes
C1.5 Corner Sites	N/A
C1.6 Subdivision	Yes
C1.7 Site Facilities	Yes
C1.8 Contamination	Yes
C1.9 Safety by Design	Yes
C1.10 Equity of Access and Mobility	N/A
C1.11 Parking	Yes
C1.12 Landscaping	Yes
C1.13 Open Space Design Within the Public Domain	N/A
C1.14 Tree Management	Yes

C1.15 Signs and Outdoor Advertising	N/A
C1.16 Structures in or over the Public Domain: Balconies, Verandahs and Awnings	N/A
C1.17 Minor Architectural Details	N/A
C1.18 Laneways	N/A
C1.19 Rock Faces, Rocky Outcrops, Cliff Faces, Steep Slopes and Rock Walls	N/A
C1.20 Foreshore Land	N/A
C1.21 Green Roofs and Green Living Walls	N/A
Part C: Place – Section 2 Urban Character	
Suburb Profile	
C2.2.3.1 Excelsior Estate Distinctive Neighbourhood, Leichhardt	Yes
C2.2.3.1(c) Thornley Sub Area	Yes
Part C: Place – Section 3 – Residential Provisions	
C3.1 Residential General Provisions	Yes
C3.2 Site Layout and Building Design	No
C3.3 Elevation and Materials	Yes
C3.4 Dormer Windows	No
C3.5 Front Gardens and Dwelling Entries	Yes
C3.6 Fences	Yes
C3.7 Environmental Performance	Yes
C3.8 Private Open Space	Yes
C3.9 Solar Access	Yes
C3.10 Views	Yes
C3.11 Visual Privacy	No
C3.12 Acoustic Privacy	Yes
C3.13 Conversion of Existing Non-Residential Buildings	N/A
C3.14 Adaptable Housing	N/A
Part C: Place – Section 4 – Non-Residential Provisions	
Part D: Energy	Yes
Part E: Water	Yes
Part F: Food	N/A
Part G: Site Specific Controls	N/A

The following provides discussion of the relevant issues:

C1.4 Heritage Conservation Areas and Heritage Items and C2.2.3.1 Excelsior Estate Distinctive Neighbourhood and C3.4 Dormer Windows

The subject property is within the *Excelsior Subdivision Heritage Conservation Area*. The subject site also falls within the Excelsior Estate Distinctive Neighbourhood and the Thornley Sub Area pursuant to Clause C2.2.3.1 and C2.2.3.1(c) of LDCP 2013.

The subject property is presently occupied by a 1980s, single storey brick and tile dwelling (and corresponding brick front fence) with a similarly modern, single storey metal carport set behind the front building line on the northern side of the site. An in-ground swimming pool is located at the rear of the site. The carport is serviced by a meandering driveway from the existing front driveway crossover. The existing property improvements on the site do not aesthetically or historically contribute to the significance of the surrounding heritage conservation area.

The proposed works have been reviewed with consideration of the above Clauses and the following comments area made with respect to these controls;

- Recommend condition of consent regarding width of dormers, deletion of W11 to south and north elevations, stepping down of fence to 9 Thornley and grey colour proposed for external walls.

The above advice has been made with regard to the setting of the streetscape within the conservation area and its heritage values set out in its statement of significance and accordingly, the proposal is supported subject to conditions achieving the above.

C1.11 Parking

The removal of the existing off-street parking space and creation of a new dwelling increases the demand for parking in an area with existing high occupancy.

It is noted that Thornley Street is within the L1 Residential Parking Scheme area. Under Council's Residential Parking Scheme the following is applicable;

“Dual occupancies, multi dwelling housing and residential flat buildings, subdivisions into two or more lots and the strata subdivision of residential flat buildings, approved after January 2001, are not allowed to participate in a RPS.”

Consequently it is to be noted that the dwellings, if approved, would not benefit from the Residential Parking Scheme.

C1.12 Landscaping and C1.14 Tree Management

There are several trees located on the site. Whilst they meet with requirements of a Prescribed Tree (as defined under C1.14.3 of the LDCP2013), given their poor form or insignificance within the landscape, the retention should not be viewed as a constraint on the development.

Given the above, it is considered that replacement planting with suitable specimens (1 tree per lot) could better achieve the objects of C1.14 of the LDCP2013 therefore, removal is supported.

The submitted Landscape Plan titled *Landscape Draft DA Rev A*, dated 06/09/2016 prepared by *Jack Williamson Design* is considered to be generally acceptable and is therefore to be conditioned. Replacement tree planting is to include one tree per lot capable of attaining six metres in height is to be included.

C3.2 Site Layout and Building Design

Building Envelope

The distinctive neighbourhood controls prescribe a 6m building envelope within the Thornley sub area. The proposed front dormer windows breach beyond the 45degree plane of the building envelope control. Notwithstanding this technical breach, it is noted that, as per the previous Pre-DA advice, the proposed overall building height is approximately midway between that of the adjacent dwellings no. 7 and 11 Thornley Street, maintaining consistency to the streetscape. The proposed dwellings are characteristic with surrounding properties and will not result in any unreasonable amenity impacts to neighbouring properties (subject to conditions). It is also considered that the dormers 'break-up' the roof form and provide some 'visual interest' to the façade, which is considered a better outcome than if the dormers were removed to achieve strict compliance. The breach with the 6m prescribed building envelope to accommodate the dormer windows is therefore considered acceptable on merit given the objectives of the Clause are achieved.

Building Location Zone

The proposed ground and first floor front and rear alignments of the new dwellings are generally consistent with those of the immediate adjoining properties (as shown in the aerial below). Notwithstanding, the first floor rear alignment results in a 6.7m breach as taken from the average rear first floor alignments of No. 11 and No. 7 Thornley Street. It is also noted that the proposed attic level accommodation extends approx. 2.28m further than the equivalent rear dormer alignment of No. 7 Thornley to the south.

The non-complying and highest elements of the development will be directly adjacent to the built form of these immediate adjoining properties and thus will have minimal amenity impact with respect to bulk and scale, overlooking and overshadowing. Furthermore, the proposal provides for sufficient landscaping and private open space in the rear gardens, thus the departure from the BLZ is considered acceptable.

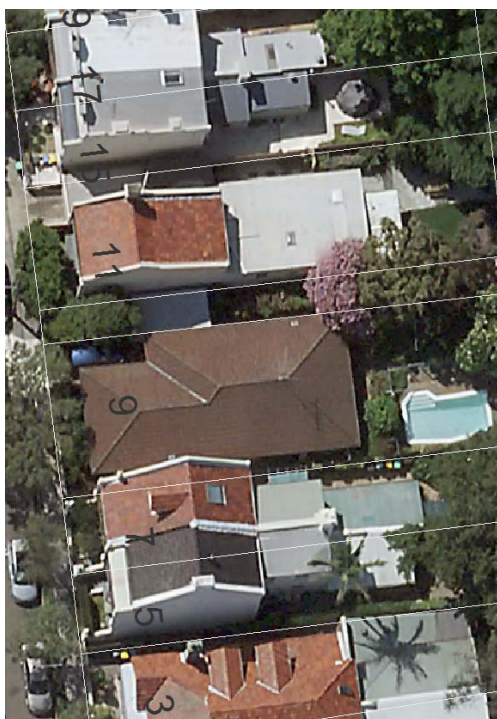


Fig.1 2015 aerial map showing BLZ of adjoining properties in Thornley Street (Council Records).

Side Setbacks

The proposal seeks to substantially breach the side setback control graph identified in this Clause for both dwellings on their respective lots. At its three storey elevation, the dwellings which are both setback 1.1m off the northern and southern side boundaries (and which share a common wall) reach 8.5m in height (measured from existing natural ground level). Pursuant to the sliding scale requirements of the control, this wall height requires a 3.2m setback from the side boundary, thus presents a non-compliance of 2.1m. As discussed above under BLZ, the non-complying and highest elements of the development will be directly adjacent to the built form of these immediate adjoining properties and thus will have minimal amenity impact with respect to bulk and scale, overlooking and overshadowing and enable ongoing maintenance of the subject and adjoining properties.

Summary

Relevant to the abovementioned technical non-compliances with the building envelope, side setback and BLZ, controls C3 and C8 of the Clause stipulates that in the following event of any proposed variation to these controls, the onus is on the applicant to demonstrate that the proposed building is consistent with the pattern of development in the immediate locality and will not unreasonably impact upon the amenity of the adjoining properties, with particular regard for bulk and scale, visual privacy, overshadowing and view loss. Within the Statement

of Environmental Effects submitted with the proposal, the Applicant has contended that compliance is unreasonable for the following reasons;

- *General locality setbacks do not consistently comply with this control.*
- *The proposal is consistent with adjacent and neighbouring dwellings.*
- *Impact of amenity to adjoining properties is minimal including any loss of sunlight, privacy, and bulk and scale.*
- *The pattern of development is not compromised.*

It is considered that the proposal achieves the above test for the reasons provided by the Applicant and the following additional reasons;

- The areas where the proposal breaches the BLZ and side setback controls will not result in any adverse amenity impacts to neighbouring properties, including view loss, solar access, visual privacy (subject to condition) and bulk and scale.
- The side setbacks proposed are commensurate to those in the immediate and wider vicinity.
- The proposal retains the Distinctive Neighbourhood Character which in part, seeks to retain the established grander dwellings on smaller lots and the subdivision pattern of the area.
- The proposal has been designed to minimise overall height and bulk by way of excavation of natural existing ground level, stepped rear elevation, minimised wall and ceiling heights and low profile roof forms to the first and ground floors.

C3.9 Solar Access

The following solar access controls apply:

New dwellings

- C4 Private open space is to receive a minimum three hours of direct Sunlight over 50% of the required private open space between 9am and 3pm at the winter solstice
- C9 New residential dwellings are to obtain a minimum of three (3) hours of direct sunlight to the main living room between 9am and 3pm during the winter solstice.

Comment: It has been demonstrated by way of solar access diagrams and calculations provided, that both of the new dwellings receive adequate solar access to internal living areas and private open space. Due to the orientation of 9A Thornley Street, a large skylight has been included above the living area (as per previous Pre-DA advice) to ensure adequate solar access to the primary internal living area at ground floor level, however it is noted that the glazing will receive direct sunlight at mid-winter from 9am to approx. 12pm mid-winter.

Neighbouring Living Room Glazing

- C12 – Where the surrounding allotments are orientated east/west, *main living room* glazing must maintain a minimum of two hours solar access between 9.00am and 3.00pm during the winter solstice.
- C15 – Where surrounding *dwellings* currently receive less than the required amount of solar access to the *main living room* between 9.00am and 3.00pm during the winter solstice, no further reduction of solar access is permitted.

Neighbouring Private Open Space

- C18 – Where surrounding *dwellings* have east/west facing private open space, ensure solar access is retained for two and a half hours between 9.00am and 3.00pm to 50% of the total area (adjacent to living room) during the winter solstice.
- C19 – Where surrounding *dwellings* currently receive less than the required amount of solar access to their *private open space* between 9.00am and 3.00pm during the winter solstice, no further reduction of solar access is permitted.

Comment. By virtue of its east-west orientation, the southern-most adjoining dwelling at No. 7 Thornley will be the most impacted by any additional overshadowing as result of the proposal.

The hourly solar access diagrams provided in plan and elevation indicate that there will be some additional overshadowing to north facing side windows, which serve the Kitchen, Laundry and Workshop of No.7 Thornley Street only (Refer to Fig. 2). No additional overshadowing to living room glazing will result and thus the proposal complies in this regard.

There will be some increase in overshadowing to the private open space of No. 7 Thornley Street after 2pm, however the required minimum solar access (50%) is maintained. For the purposes of this assessment it is noted that the internal living room of No. 7 Thornley currently has no direct access to the rear private open space, where it is traditionally located towards the front of the dwelling (Refer to Fig. 2).

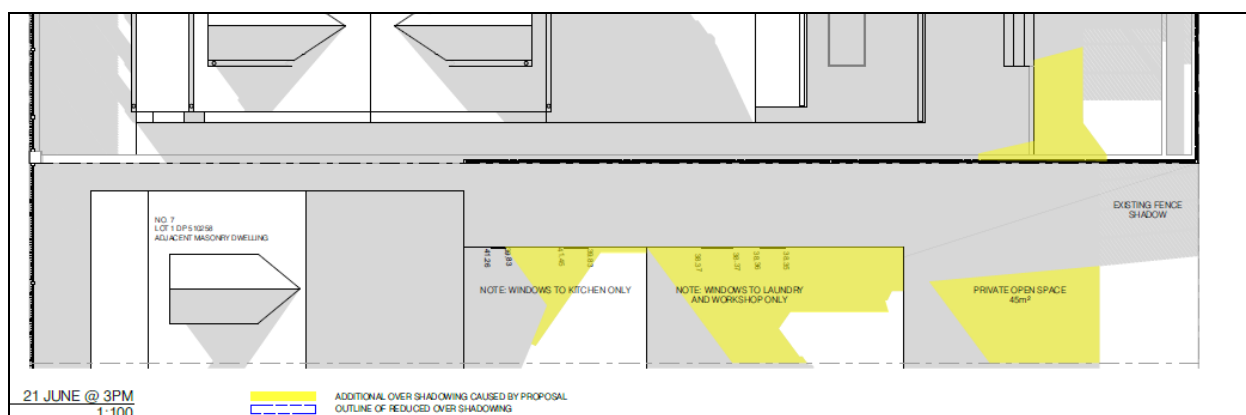


Fig. 2 Extract from submitted Solar Access Diagram at 3pm mid-winter showing additional shadows cast in yellow across windows and POS of No. 7 Thornley Street.

Accordingly, the proposal is considered acceptable with respect to achieving the objectives of the Clause.

C3.11 Visual Privacy

The proposal seeks to provide small balconies which serve the master bedrooms to the first floor rear elevation for each dwelling. These balconies are proposed to be screened at their side elevations and 1.4m depth x 4.8m length. Control C9 of the Clause requires a maximum length of 2m and depth of 1.2m to balconies at first floor level or above at the rear of residential dwellings and this is to be conditioned in the draft determination. This reduction will ensure that the balconies serve only as a “breakout” space to the bedrooms, where they are not significantly trafficable and will not be used to a high volume during the day.

It is noted that No. 11 Thornley to the north does not feature any windows to its southern side elevation. Windows to the first floor southern elevation of proposed 9A Thornley serve a robe and ensuite/bathroom and a condition of consent is recommended to ensure that these windows, which may have opportunity to overlooking adjacent windows to No. 7 Thornley, are constructed of obscured and fixed glazing to 1.6m from finished floor level (FFL). Sufficient spatial separation to the rear boundary is provided from the rear glazing to the first floor rear elevation which serves bedrooms and the sill height of the rear dormer windows are such (1.8m from FFL) that overlooking cannot be achieved to neighbouring properties.

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 R1 – General Residential. 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 Part A, Section 3 of LDCP 2013 for a period of 14 days to surrounding properties. A total of five (5) submissions were received, Four (4) in objection and one (1) in support.

The following issues raised in submissions have been discussed in this report:

- The increase in visual bulk from the development – see Section 5(c) – C3.9
- Privacy implications from the new balconies and windows – see Section 5(c) – C3.11.
- Overshadowing to neighbouring property windows - See Section 5(c) – C3.9
- FSR Variation – See Section 5(b) - C4.6
- Streetscape/Heritage Conservation – See Section 5(c) – C1.4

In addition to the above issues, the submissions raised the following concerns which are discussed under the respective headings below:

No parking provided

Comment: Pursuant to C1.11 – Parking of LDCP 2013, there is no requirement to provide on-street parking for single residential dwellings, thus it would be unreasonable for Council to pursue off-street parking in this instance. It is also noted that the proposal seeks to close the existing crossover thus returning on-street parking in this location. To pursue further parking is not considered environmentally sustainable.

Roof Materials should be of traditional slate tiles and not colourbond sheeting.

Comment: traditional corrugated galvanised steel is considered sympathetic and compatible with setting the relationship of the new building within the Heritage Conservation Area and the historic period of construction of the main dwellings in Thornley Street.

Existing rising damp issues with No. 7 Thornley as result of built up soil along boundary, will they be rectified?

Comment: the proposal includes excavation up to approx. 1.2m to facilitate a flat site. These site adjustments will not have adverse impact on site drainage or soil stability and will assist to improve the rising damp issues to the southern neighbouring property as a result of the excavation.

Damage to rear retaining wall footings as result of excavation/construction at 16 Renwick Street.

Comment: No excavation proposed within 900mm from the rear boundary. It is not considered that the works will compromise the existing rear retaining wall on the neighbouring property at 16 Renwick Street. Notwithstanding, a dilapidation report is recommended to be undertaken to the adjoining properties pre and post construction.

Sewer line to rear of property may be compromised as result of works

Comment: Any 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. This is a standard condition imposed in the draft determination.

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.

- Heritage Officer
- Development Engineer
- Landscape

6(b) External

The application was not required to be referred to external authorities.

7. Section 94 Contributions

Section 94 contributions are payable for the proposal.

The carrying out of the development 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:

Open Space & Recreation

• Two (2) dwellings 160m ² - 215m ² @ \$33,142.00 per dwelling	\$66,284.00
• Less credit for one (1) dwelling 106m ² – 160m ² @ \$25,811.00 per dwelling	-\$,25,811.00
Total	\$40,473.00

Community Facilities & Services

• Two (2) dwellings 160m ² – 215m ² @ \$5,066.00 per dwelling	\$10,132.00
• Less credit for one (1) dwelling 106m ² – 160m ² @ \$3,945.00 per dwelling	-\$3,945.00
Total	\$6,187.00

Transport and access, Works & Facilities

• LATM for two (2) dwellings > 120m ² @ \$227.32 per dwelling	\$454.64
• Less LATM credit for one (1) dwelling 120m ² @ \$227.32 per dwelling	- \$227.32
LATM Total	\$227.32

• Bicycle works for two (2) dwellings > 120m ² @ \$34.13 per dwelling	\$68.26
• Less Bicycle works credit for one (1) dwelling 120m ² @ \$34.13 per dwelling	-\$34.13
Bicycle Total	\$34.13
Total	\$261.45
NET	\$46,921.45

Pursuant to the Ministerial Direction on Local Infrastructure Contributions dated 3 March 2011:

(2) *A council (or planning panel) must not grant development consent (other than for development on land identified in Schedule 2) subject to a condition under section 94 (1) or (3) of the Environmental Planning and Assessment Act 1979 requiring the payment of a monetary contribution that:*

(a) in the case of a development consent that authorises one or more dwellings, exceeds \$20000 for each dwelling authorised by the consent, or

(b) in the case of a development consent that authorises subdivision into residential lots, exceeds \$20 000 for each residential lot authorised to be created by the development consent.

In this instance the consent authorises the erection of two dwellings (notwithstanding a credit is given for one existing dwelling), and hence Council may not impose a condition that requires payment in excess of \$40,000. As the proposed condition required payment of \$40,000, the Direction is complied with.

A condition requiring that contribution to be paid is included in the recommendation as follows;

Contribution Plan	Contribution	Adjusted Contribution
Community Facilities	\$6,187.00	\$5,274.35
Open Space	\$40,473.00	\$34,502.77
Local Area Traffic Management	\$227.32	\$193.79
Access to Balmain Peninsula	\$0.00	\$0.00
Light Rail	\$0.00	\$0.00
Leichhardt Town Centre	\$0.00	\$0.00
Bicycle	\$34.13	\$29.10
Commercial Carparking	\$0.00	\$0.00
Total	\$46,921.45	\$40,000.00

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

That Council, as the consent authority pursuant to s80 of the Environmental Planning and Assessment Act 1979, grant consent to Development Application No: D/2016/497 for demolition of existing dwelling and swimming pool, Torrens title subdivision into two lots & construction of two new dwellings at 9 Thornley Street, LEICHHARDT subject to the conditions listed in Attachment A below.

Attachment A – Recommended conditions of consent

1. Development must be carried out in accordance with Development Application No. D/2016/497 and the following plans and supplementary documentation, except where amended by the conditions of this consent.

Plan Reference	Drawn By	Dated
DA04/B – Demolition Plan	TW Architects	07.11.16
DA05/B – Proposed Subdivision Plan	TW Architects	07.11.16
DA06/B – Proposed Site & Roof Plan	TW Architects	07.11.16
DA07/B – Proposed Ground Floor Plan	TW Architects	07.11.16
DA08/B – Proposed First Floor Plan	TW Architects	07.11.16
DA09/B – Proposed Attic Plan	TW Architects	07.11.16
DA10/B – Proposed Sections	TW Architects	07.11.16
DA11/B – Proposed Sections	TW Architects	07.11.16
DA12/B – Proposed Elevations	TW Architects	07.11.16
DA13/B – Proposed Elevations	TW Architects	07.11.16
Landscape Plan – Rev A	Jack Williamson Design	06.09.16
2016-2148 – S1 - Rev A – General Layout Plan	Fusion Engineering Services	18.01.17
2016-2148 – S2 - Rev A – General Layout Plan	Fusion Engineering Services	18.01.17
Document Title	Prepared By	Dated
BASIX Certificate – 758336S_02	TW Architects	07.09.16
BASIX Certificate – 758302S_02	TW Architects	07.09.16
Aircraft Noise Assessment Ref: 160798-01L-DD	Acoustic Consulting Engineers Pty Ltd	08.09.16
Arboricultural Impact Assessment Report Ref: CD1714	The Arborist Network	20.09.16

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 demolition in accordance with the approved plans scheduled under Condition 1 of this development consent, currently existing on the property, subject to strict compliance with the following conditions:
 - 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 Leichhardt Council.
 - v) An asbestos clearance certificate prepared by a qualified occupation hygienist must be provided at the completion of the demolition works.

3. Approval is given for the following works to be undertaken to trees on the site:

Tree/location	Approved works
<i>Camellia sasanqua</i> (Camellia) located at the front of the property.	Removal
<i>Tibouchina spp.</i> (Tibouchina) located at the rear of the property.	Removal
<i>Magnolia x soulangiana</i> (Saucer Magnolia) located at the rear of the property.	Removal
<i>Plumeria acutifolia</i> (Frangipani) located at the rear of the property.	Removal

Removal or pruning of any other tree (that would require consent of Council) on the site is not approved.

PRIOR TO THE RELEASE OF A CONSTRUCTION CERTIFICATE

- 4. Amended plans are to be submitted incorporating the following amendments:
 - a) W11 to north and south elevation at proposed attic level to be deleted

- b) The front dormers to be a maximum 1.2m in width and are to be built otherwise to the size and location as scaled from the elevation drawings. Roof sheeting and barge board is to not exceed 150mm overhang. Location of downpipes to dormer gutter as shown on roof plan to be relocated to rear of gutter toward roof slope.
- c) All levels to the front fence of no. 9 Thornley Street (i.e. top of gate, fence and posts, top of base plinth and threshold) to step down by 250mm from the post on new boundary between 9 and 9a Thornley Street.
- d) The mid grey colour proposed for the external walls is to be deleted. The external walls are to be an off white/pale grey colour.
- e) Windows W06, W07 and W08 to the southern first floor elevation of proposed dwelling to 9A Thornley Street to be constructed of fixed and obscure glazing up to 1.6m measured from FFL.
- f) The balconies to the first floor rear elevation are to be reduced in length to a maximum of 2m.

Details demonstrating compliance with the requirements of this condition are to be marked on the plans and be submitted to the Principal Certifying Authority's satisfaction prior to the issue of any Construction Certificate.

5. 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 Environment 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.

6. The following replacement trees must be planted:

A minimum of 1 x 75 litre size additional tree is to be provided per lot and which will attain a minimum mature height of 6 metres, shall be planted in a more suitable location within the property. The tree is to conform to AS2303—Tree stock for landscape use.

Details of the species and planting locations of the replacement plants must be included on the landscape plan and site plan prior to the issue of a Construction Certificate.

If the replacement trees are found to be faulty, damaged, dying or dead within twelve (12) months of planting then they must be replaced with the same species. If the trees are found dead before they reach a height where they are protected by Council's Tree Management Controls, they must be replaced with the same species.

7. As the site where the property is identified as located within ANEF 20-25 or greater, the development approved under this consent must meet the relevant provisions of Australian Standard AS 2021:2000 Acoustics – Aircraft noise intrusion – Building siting and construction.

An acoustic report prepared by a suitably qualified person and accompanying plans demonstrating compliance are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate.

8. 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.

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. In accordance with the provisions of Section 81A 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.

11. The following requirements are to be incorporated into the development detailed on the Construction Certificate plans and provided prior to the issue of a Construction Certificate:
- a) No rainforest timbers or timbers cut from old growth forests are to be used in the construction of the development. Timbers to be used are to be limited to any

plantation, regrowth or recycled timbers, or timbers grown on Australian Farms or State Forest Plantations.

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

12. 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.

13. 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 demonstrating compliance with the requirements of this condition are to be submitted to the Principal Certifying Authority's satisfaction prior to the issue of any Construction Certificate.
14. 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.

15. The following replacement trees must be planted:

A minimum of 1 x 75 litre size additional tree is to be provided per lot and which will attain a minimum mature height of 6 metres, shall be planted in a more suitable location within the property. The tree is to conform to AS2303—*Tree stock for landscape use*.

Details of the species and planting locations of the replacement plants must be included on the landscape plan and site plan prior to the issue of a Construction Certificate.

If the replacement trees are found to be faulty, damaged, dying or dead within twelve (12) months of planting then they must be replaced with the same species. If the trees are found dead before they reach a height where they are protected by Council's Tree Management Controls, they must be replaced with the same species.

16. If any excavation extends below the level of the base of the footings of a building on an adjoining property, the person causing the excavation:
 - a) Must preserve and protect the adjoining building from damage
 - b) Must, at least seven (7) days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention

to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation to the owner of the building being erected or demolished.

- c) The owner of the adjoining allotment of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

In this condition, the allotment of land includes public property.

17. The following fire upgrading is required pursuant to Clause 94 of the *Environmental Planning and Assessment Regulation 2000*:

- The building is to be provided with smoke alarm system that complies with *AS3786-1993: Smoke Alarms* and the smoke alarms must be connected to the consumer mains electrical power supply and interconnected where there is more than one alarm with a stand-by (battery back-up) power supply. The smoke alarm system must be installed in suitable locations on or near the ceiling in accordance with Part 3.7.2 of the Building Code of Australia.

Amended plans and specifications demonstrating compliance with this condition must be submitted to the satisfaction of the Principal Certifying Authority with the application prior to the issuing of a for a Construction Certificate.

Note: Where an existing system complying with the above requirements is already installed in the building, evidence of this should be submitted with the application for a Construction Certificate.

18. A stormwater drainage design, incorporating on site stormwater detention facilities (OSD), prepared by a qualified practicing Civil Engineer must be provided prior to the issue of a Construction Certificate. The design must be prepared/amended to make provision for the following:

- a) The design must be generally in accordance with the stormwater drainage concept plan on Drawing No. 2016-2148 Revision A prepared by Fusion Engineering Services and dated 18 January 2017.
- b) The design must make provision for the natural flow of stormwater runoff from uphill/upstream properties/lands. The design must include the collection of such waters and discharge to the Council drainage system.
- c) An overland flowpath must be provided within the setback to the side boundaries between the rear of the dwellings and the Thornley Street frontage. The rear courtyard must be graded so that bypass flows from the site drainage system are directed to the overland flowpath.

A minimum 150mm step up must be provided between all external finished surfaces and adjacent internal floor areas, except where a reduced step is permitted under Section 3.1.2.3 (b) of the Building Code of Australia for Class 1 buildings.

- d) A minimum 150mm step up must be provided between the finished surfaces of all external courtyards and the adjacent internal floor levels.
- e) All plumbing within the site must be carried out in accordance with Australian Standard *AS/NZS3500.3.2003 Plumbing and Drainage – Stormwater Drainage*.

- f) The stormwater system must not be influenced by backwater effects or hydraulically controlled by the receiving system.
- g) An inspection opening or stormwater pit must be installed inside the property adjacent to the boundary for all stormwater outlets.
- h) All redundant stormwater pipelines within the footpath area must be removed and the footpath and kerb reinstated.
- i) New pipelines within the footpath area that are to discharge to the kerb and gutter must be hot dipped galvanised steel hollow section with a minimum wall thickness of 4.0mm and a section height of 100mm.
- j) The proposed on-site retention tanks must be connected to a pump system for internal reuse for laundry purposes, the flushing of all toilets and for outdoor usage such as irrigation.

The design must be certified as compliant with the terms of this condition by a suitably qualified Civil Engineer.

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

19. A Soil and Water Management Plan must be provided prior to the issue of a Construction Certificate. The Soil and Water Management plan must be designed to be compatible with the document Planning for Erosion and Sediment Control on Single Residential Allotments or Managing Urban Stormwater—Soils & Construction Volume 1 (2004) available at www.environment.nsw.gov.au and the Construction Management and Traffic Management Plan referred to in condition/s of this Development Consent and must address, but is not limited to the following issues:

- a) Minimise the area of soils exposed at any one time.
- b) Conservation of top soil.
- c) Identify and protect proposed stockpile locations.
- d) Preserve existing vegetation. Identify revegetation technique and materials.
- e) Prevent soil, sand, sediments leaving the site in an uncontrolled manner.
- f) Control surface water flows through the site in a manner that:
 - i) Diverts clean run-off around disturbed areas;
 - ii) Minimises slope gradient and flow distance within disturbed areas;
 - iii) Ensures surface run-off occurs at non erodable velocities;
 - iv) Ensures disturbed areas are promptly rehabilitated.
- g) Sediment and erosion control measures in place before work commences.
- h) Materials are not tracked onto the road by vehicles entering or leaving the site.
- i) Details of drainage to protect and drain the site during works.

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.

20. 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.

21. Prior to the issue of a Construction Certificate, the applicant must prepare a Construction Management and Traffic Management Plan. The following matters should be addressed in the plan (where applicable):
- a) A plan view of the entire site and frontage roadways indicating:
 - i) Dedicated construction site entrances and exits, controlled by a certified traffic controller, to safely manage pedestrians and construction related vehicles in the frontage roadways.
 - ii) The locations of work zones (where it is not possible for loading/unloading to occur on the site) in the frontage roadways accompanied by supporting documentation that such work zones have been approved by the Local Traffic Committee and Council.
 - iii) Location of any proposed crane and concrete pump and truck standing areas on and off the site.
 - iv) A dedicated unloading and loading point within the site for construction vehicles, plant and deliveries.
 - v) The proposed areas within the site to be used for the storage of excavated material, construction materials and waste and recycling containers during the construction period.
 - b) Noise and vibration
During excavation, demolition and construction phases, noise & vibration generated from the site must be controlled. Refer to other conditions of this consent. If during excavation, rock is encountered, measures must be taken to minimise vibration, dust generation and impacts on surrounding properties. Refer to Environmental Noise Management Assessing Vibration: a technical Guideline (Department of Environment and Conservation, 2006) www.epa.nsw.gov.au for guidance and further information.
 - c) Occupational Health and Safety
All site works must comply with the occupational health and safety requirements of the New South Wales Work Cover Authority.
 - d) Toilet Facilities
During excavation, demolition and construction phases, toilet facilities are to be provided on the site, at the rate of one toilet for every twenty (20) persons or part of twenty (20) persons employed at the site. Details must be shown on the plan.
 - e) Traffic control plan(s) for the site
All traffic control plans must be in accordance with the Roads and Maritime Services publication "Traffic Control Worksite Manual"

Approval is to be obtained from Council for any temporary road closures or crane use from public property. Applications to Council shall be made a minimum of 4 weeks prior to the activity proposed being undertaken.

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.

22. A Waste Management Plan (WMP) is to be provided in accordance with **Part D – Waste – Development Control Plan 2013**. The Plan must address all issues identified in the DCP including but not limited to:
- a) Estimated volume (m³) or weight (t) of materials that are reused, recycled or removed from site.
 - b) On site material storage areas during construction.
 - c) Material and methods used during construction to minimise waste.
 - d) Nomination of end location of all waste and recycling generated from a facility authorised to accept the material type for processing or disposal and retention of waste dockets to be made available to Council Officer on request
 - e) A clear statement within the Waste Management Plan of responsibility for the transferral of waste and recycling bins within the property and between floors where applicable to the collection point in accordance with DCP 2013.

All requirements of the approved Waste Management Plan must be implemented during the demolition, excavation and construction of the development.

23. The applicant must bear the cost of construction of the following works:
- a) Reconstruction of the sandstone kerb and concrete gutter and concrete footpath with grass verge for the full length of the Thornley Street frontage of the site, including closure of the redundant vehicle crossing.

Development Consent does NOT give approval to undertake any works on Council property. **An application must be made to Council and a Roadworks Permit issued under Section 138 of the Roads Act 1993 prior to construction of these works.**

The Roadworks Permit must be submitted to the Principal Certifying Authority prior to the issue of a Construction Certificate.

These works must be constructed in accordance with the conditions of the Roadworks Permit and be completed prior to the issue of an Occupation Certificate.

Note: The cost of adjustment or relocation of any public utility service shall be borne by the owner/applicant. Where the finished levels of the new works will result in changes to the existing surface levels, the cost of all necessary adjustments or transitions beyond the above scope of works shall be borne by the owner/applicant.

24. A contribution pursuant to the provisions of Section 94 of the Environmental Planning and Assessment Act, 1979 for the services detailed in column A and for the amount detailed in column B shall be made to Council prior to the issue of a Construction Certificate:

Contribution Plan	Contribution	Adjusted Contribution
Community Facilities	\$6,187.00	\$5,274.35
Open Space	\$40,473.00	\$34,502.77
Local Area Traffic Management	\$227.32	\$193.79
Bicycle	\$34.13	\$29.10
Total	\$46,921.45	\$40,000.00

The total contribution is: \$40,000.00

Payment will only be accepted in the form of cash, bank cheque or EFTPOS I Credit Card (to a maximum of \$10,000). It should be noted that personal cheques or bank guarantees cannot be accepted for Section 94 Contributions. Contribution Plans may be inspected on Council's website www.leichhardt.nsw.gov.au or a copy purchased at the Citizen Service in Council's Administration Centre, 7-15 Wetherill Street, Leichhardt, during business hours.

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

25. Prior to the commencement of demolition works on the subject site or a Construction Certificate being issued for works approved by this development consent (whichever occurs first), a security deposit and inspection fee as detailed below 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.

Security Deposit	\$3,524.52
Inspection fee	\$219.00

Payment will be accepted in the form of cash, bank cheque or 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 & footpath prior to & 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, Council may carry out any works necessary to repair the damage and/or remove the risk. The cost of these works will be deducted from the security deposit.

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.

26. Prior to the commencement of demolition works on the subject site or a Construction Certificate being issued (whichever occurs first), a security deposit to the value of \$12,300 must be paid to Council to cover the costs associated with the road, footpath and drainage works required by this consent.

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 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.

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.

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.

27. A dilapidation report including a photographic survey of the following adjoining properties must be provided to Principal Certifying Authority prior to any demolition or works commencing on the site or the issue of a Construction Certificate (whichever comes first). The dilapidation report must detail the physical condition of those properties, both internally and externally, including walls, ceilings, roof, structural members and other similar items.

Property	Structures / Area
No. 11 Thornley Street	Southern wall of dwelling - including walls, ceilings, roof, structural members and other similar items.
No. 7 Thorney Street	Northern wall of dwelling - including walls, ceilings, roof, structural members and other similar items.
No. 16 Renwick Street	Rear adjoining retaining wall structure only.

If excavation works are proposed the dilapidation report must report on the visible and structural condition of neighbouring structures within the zone of influence of the excavations. This zone is defined as the horizontal distance from the edge of the excavation face to twice the excavation depth.

The dilapidation report is to be prepared by a practising Structural Engineer. All costs incurred in achieving compliance with this condition shall be borne by the applicant. A copy of the report must be provided to Council, the Principal Certifying Authority and the owners of the affected properties prior to any works commencing.

In the event that access for undertaking the dilapidation report is denied by an adjoining owner, the applicant must demonstrate, in writing that all reasonable steps have been taken to obtain access and advise the affected property owner of the reason for the survey and that these steps have failed. Written correspondence from the owners of the affected properties or other evidence must be obtained and submitted to the Principal Certifying Authority in such circumstances that demonstrates such documentation has been received. The Principal Certifying Authority must be

satisfied that the requirements of this condition have been met prior to commencement of any works.

Note: This documentation is for record keeping purposes and may be used by an applicant or affected property owner to assist in any action required to resolve any civil dispute over damage rising from the works.

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.

28. Should works require any of the following on public property (footpaths, roads, reserves), an application shall be submitted and approved by Council prior to the commencement of the works associated with such activity or the Construction Certificate (whichever occurs first)
- a) Work/Construction zone (designated parking for construction vehicles). – A Work Zone application
 - b) A concrete pump across the roadway/footpath. – A Standing Plant permit
 - c) Mobile crane or any standing plant – A Standing Plant Permit
 - d) Skip bins other than those authorised by Leichhardt Council – Skip Bin Application
 - e) Scaffolding/Hoardings (fencing on public land) – Scaffolding and Hoardings on Footpath Application
 - f) Road works including vehicle crossing/kerb & guttering, footpath, stormwater provisions etc – Road works Application
 - g) Awning or street verandah over footpath. – Road works Application
 - h) Installation or replacement of private stormwater drain, utility service or water supply – Road Opening Permit

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.

PRIOR TO THE COMMENCEMENT OF WORKS

29. 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 or the location certified by a registered surveyor in accordance with the approved plans, prior to the commencement of works.

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

- a) location of the building with respect to the boundaries of the site;

30. The site must be secured with temporary fencing prior to any works commencing.

If the work involves the erection or demolition of a building and is likely to cause pedestrian or vehicular traffic on public property to be obstructed or rendered inconvenient, or building involves the enclosure of public property, a hoarding or fence must be erected between the work site and the public property. Additionally an awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling onto public property, where necessary.

Separate approval is required under the *Roads Act 1993* to erect a hoarding or temporary fence or awning on public property. Approvals for hoardings, scaffolding on public land must be obtained and clearly displayed on site for the duration of the works.

Any hoarding, fence or awning is to be removed when the work is completed and must be maintained clear of any advertising.

31. The *Home Building Act 1989* requires that insurance must be obtained from an insurance company approved by the Department of Fair Trading prior to the commencement of works approved by this Development Consent.

A copy of the certificate of insurance must be submitted to the Certifying Authority prior to the works commencing.

If the work is to be undertaken by an owner-builder, written notice of their name and owner-builder permit number must be submitted to the Certifying Authority.

In all other cases, written notice must be given to the Certifying Authority of:

- a) the name and licence number of the principal contractor; and
- b) reasons why a certificate of insurance is not required.

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.

32. Any person or contractor undertaking works on public property must take out Public Risk Insurance with a minimum cover of ten (10) million dollars in relation to the occupation of, and approved works within public property. The Policy is to note, and provide protection for Leichhardt 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.
33. Prior to the commencement of works, the Principal Certifying Authority shall be notified in writing of the name and contractor licence number of the owner/builder intending to carry out the approved works.
34. 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.
35. 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.

DURING WORKS

36. 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.

37. 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.

38. The site must be appropriately secured and fenced at all times during works.
39. All fill used with the proposal shall be virgin excavated material (such as clay, gravel, sand, soil and rock) that is not mixed with any other type of waste and which has been excavated from areas of land that are not contaminated with human made chemicals as a result of industrial, commercial, mining or agricultural activities and which do not contain sulphate ores or soils.

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

40. 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.

41. 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.
42. 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.
43. The development must be inspected at the following stages by the Principal Certifying Authority during construction:
- a) after excavation for, and prior to the placement of, any footings, and
 - b) prior to pouring any in-situ reinforced concrete building element, and
 - c) prior to covering of the framework for any floor, wall, roof or other building element, and
 - d) prior to covering waterproofing in any wet areas, and
 - e) prior to covering any stormwater drainage connections, and

- f) after the building work has been completed and prior to any occupation certificate being issued in relation to the building.
44. 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.
45. Stormwater runoff from all roof and paved areas within the property must be collected in a system of gutters, pits and pipelines discharged by gravity to the kerb and gutter of a public road.

Any existing component of the stormwater system that is to be retained must be checked and certified by a Licensed Plumber or qualified practicing Civil Engineer to be in good condition and operating satisfactorily.

If any component of the existing system is not in good condition and /or not operating satisfactorily, it must be upgraded.

46. Sedimentation controls, tree protection measures and safety fencing (where relevant) shall be maintained during works to ensure they provide adequate protection during the course of demolition, excavation and construction works. Materials must be stored in a location and manner to avoid material being washed to drains or adjoining properties.

The requirements of the Soil and Water Management Plan must be maintained at all times during the works and shall not be removed until the site has been stabilised to the Principal Certifying Authority's satisfaction.

Material from the site is not to be tracked onto the road by vehicles entering or leaving the site. At the end of each working day any dust/dirt or other sediment shall be swept off the road and contained on the site and not washed down any stormwater pit or gutter.

The sediment and erosion control measures are to be inspected daily and defects or system failures are to be repaired as soon as they are detected.

47. 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.

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

49. 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 Management 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.

PRIOR TO THE ISSUE OF AN OCCUPATION CERTIFICATE

50. A second Dilapidation Report including photos of any damage evident at the time of inspection must be submitted after the completion of works. A copy of this Dilapidation Report must be given to the property owners referred to in this Development Consent. The report must:

- Compare the post construction report with the pre-construction report required by these conditions,
- Clearly identify any recent damage and whether or not it is likely to be associated with the development works including suggested remediation methods.

A copy must be lodged with Council and the Principal Certifying Authority prior to the issue of an 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.

51. Prior to the issue of an Occupation Certificate, the Principle Certifying Authority must ensure that the stormwater drainage system has been constructed in accordance with the approved design and relevant Australian Standards.

Works-as-executed plans of the stormwater drainage system, certified by a Registered Surveyor, together with certification by a qualified practicing Civil Engineer to verify that the drainage system has been constructed in accordance with the approved design and relevant Australian Standards, must be provided to the Principle Certifying Authority prior to the issue of an Occupation Certificate.

The works-as-executed plan(s) must show the as built details in comparison to those shown on the drainage plans approved with the Construction Certificate. All relevant levels and details indicated must be marked in red on a copy of the Principle Certifying Authority stamped Construction Certificate plans.

52. Prior to the issue of an Occupation Certificate, the Principal Certifying Authority must ensure that an Operation and Management Plan has been prepared and implemented for the on site detention facilities. The Plan must set out the following at a minimum:

- a) The proposed maintenance regime, specifying that the system is to be regularly inspected and checked by qualified practitioners.
- b) The proposed method of management of the facility, including procedures, safety protection systems, emergency response plan in the event of mechanical failure, etc.

The Plan must be prepared by a suitably qualified professional and provided to the Principal Certifying Authority prior to the issue of an Occupation Certificate.

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

54. 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.

55. Prior to the issue of any Occupation Certificate, the Principal Certifying Authority is to be satisfied that all landscape works, including the removal of all noxious weed species and planting of canopy trees, have been undertaken in accordance with the approved plan(s) and conditions of consent. A copy of an active Landscape

management plan/contract for the maintenance of the landscaping for a period of not less than two years after the installation is to be provided prior to the issue of the Occupation Certificate.

56. Prior to the issue of an Occupation Certificate, the Principal Certifying Authority must ensure that all works have been completed in accordance with the approved Waste Management Plan referred to in this development consent.

Proof of actual destination of demolition and construction waste shall be provided to the Principal Certifying Authority prior to the issue of an Occupation Certificate.

57. Prior to the release of an Occupation Certificate, the Principal Certifying Authority must be satisfied that the development complies with:

- the approved plans;
- BASIX certificate (where relevant),
- approved documentation (as referenced in this consent); and
- conditions of this consent.

58. Prior to the issue of an Occupation Certificate, a positive covenant must be created under Section 88E of the *Conveyancing Act 1919*, burdening the owner(s) with the requirement to maintain the on-site stormwater detention facilities on the property.

The terms of the 88E instrument with positive covenant shall include, but not be limited to, the following:

- a) The Proprietor of the property shall be responsible for maintaining and keeping clear all pits, pipelines, trench barriers and other structures associated with the on-site stormwater detention facilities ("OSD").
- b) The Proprietor shall have the OSD inspected annually by a competent person.
- c) The Council shall have the right to enter upon the land referred to above, at all reasonable times to inspect, construct, install, clean, repair and maintain in good working order all pits, pipelines, trench barriers and other structures in or upon the said land which comprise the OSD or which convey stormwater from the said land; and recover the costs of any such works from the proprietor.
- d) The registered proprietor shall indemnify the Council and any adjoining land owners against damage to their land arising from the failure of any component of the OSD, or failure to clean, maintain and repair the OSD.

The proprietor or successor must bear all costs associated in the preparation of the subject 88E instrument. Proof of registration with NSW Land and Property Information must be submitted to and approved by the Principal Certifying Authority prior to the issue of an Occupation Certificate / Subdivision 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

PRIOR TO THE ISSUE OF A SUBDIVISION CERTIFICATE

59. A Registered Surveyor shall provide certification that all services (eg drainage, stormwater, water supply, gas, electricity, telephone) as constructed are contained within each lot or within appropriate easements to accommodate such services. The certification is to be provided prior to the issue of a Subdivision Certificate.

60. Prior to the issue of a Subdivision Certificate, the applicant shall submit an original plan of subdivision plus three (3) copies for Council's endorsement and administration sheet. The following details shall also be submitted:
- a) Evidence that all conditions of Development Consent D/2016/497 have been satisfied.
 - b) Evidence of payment of all relevant fees and contributions.
 - c) The 88B instrument plus six (6) copies.
 - d) A copy of the final Occupation Certificate issued for the development.
 - e) All surveyor's or engineer's certification required by the Development Consent.
 - f) A copy of the Section 73 Compliance Certificate issued by Sydney Water.

All parking spaces and common property, including visitor car parking spaces and on-site detention facilities must be included on the final plans of subdivision and allocated in accordance with the approved plans.

ONGOING CONDITIONS OF CONSENT

61. The owner/manager of the site is responsible for the removal of all graffiti from the building and fences within seventy-two (72) hours of its application.
62. Any lighting of the premises shall be installed and maintained in accordance with Australian Standard AS 4282-1997: *Control of the Obtrusive Effects of Outdoor Lighting* so as to avoid annoyance to the occupants of adjoining premises or glare to motorists on nearby roads. The intensity, colour or hours of illumination of the lights shall be varied at Council's discretion if in the opinion of an Authorised Council Officer it is considered there to be have adverse effects on the amenity of the area.
63. The Operation and Management Plan for the on site detention facilities, approved with the Occupation Certificate, must be implemented and kept in a suitable location on site at all times.
64. All owners, tenants and occupiers of this building are not eligible to participate in any existing or proposed Council Resident Parking Schemes. All occupants and/or employees of this building will be ineligible to obtain Council Resident Parking Scheme parking permits. The owner of the dwelling must advise in writing all intending owners, tenants and occupiers of the dwelling, at the time of entering into a purchase / lease / occupancy agreement, of this prohibition.
65. The canopy replenishment trees required by this consent are to be maintained in a healthy and vigorous condition until they attain a height of 6 metres whereby they will be protected by Council's Tree Management Controls. Any of the trees found faulty, damaged, dying or dead shall be replaced with the same species within 2 months.
66. The premises shall not be used for any purpose other than that stated in the Development Application, i.e. Dwelling without the prior consent of the Council unless the change to another use is permitted as exempt or complying development under *Leichhardt Local Environment Plan 2013* or *State Environmental Planning policy (Exempt and Complying Codes) 2008*.

The use of the premises as a Dwelling, is defined under the *Leichhardt Local Environmental Plan 2013*.

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 96 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 Leichhardt 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

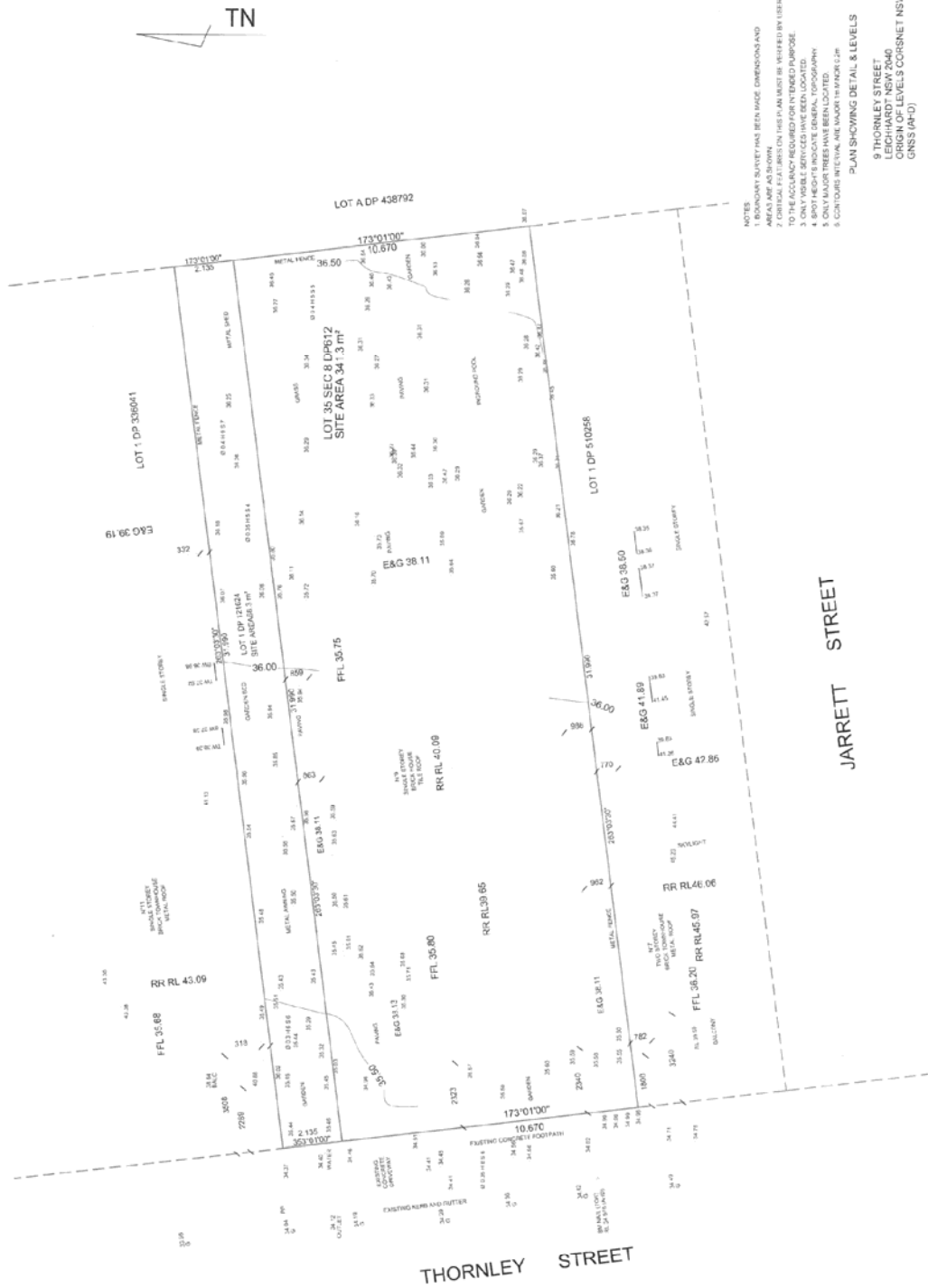
- (1) For the purposes of [section 80A](#) (11) of [the Act](#), it is a prescribed condition of development consent that if the development involves an excavation that extends below the level of the base of the footings of a building on adjoining land, the person having the benefit of the development 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 82A 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, integrated 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 82A.
3. If you are unsatisfied with this determination, Section 97 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 96 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) Application for a Subdivision Certificate under the *Environmental Planning and Assessment Act 1979* if land (including stratum) subdivision of the development site is proposed.
 - e) Application for Strata Title Subdivision if strata title subdivision of the development is proposed.
 - f) Development Application for demolition if demolition is not approved by this consent.
 - g) Development Application for subdivision if consent for subdivision is not granted by this consent.
 - h) 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.

Attachment B – Plans of proposed development



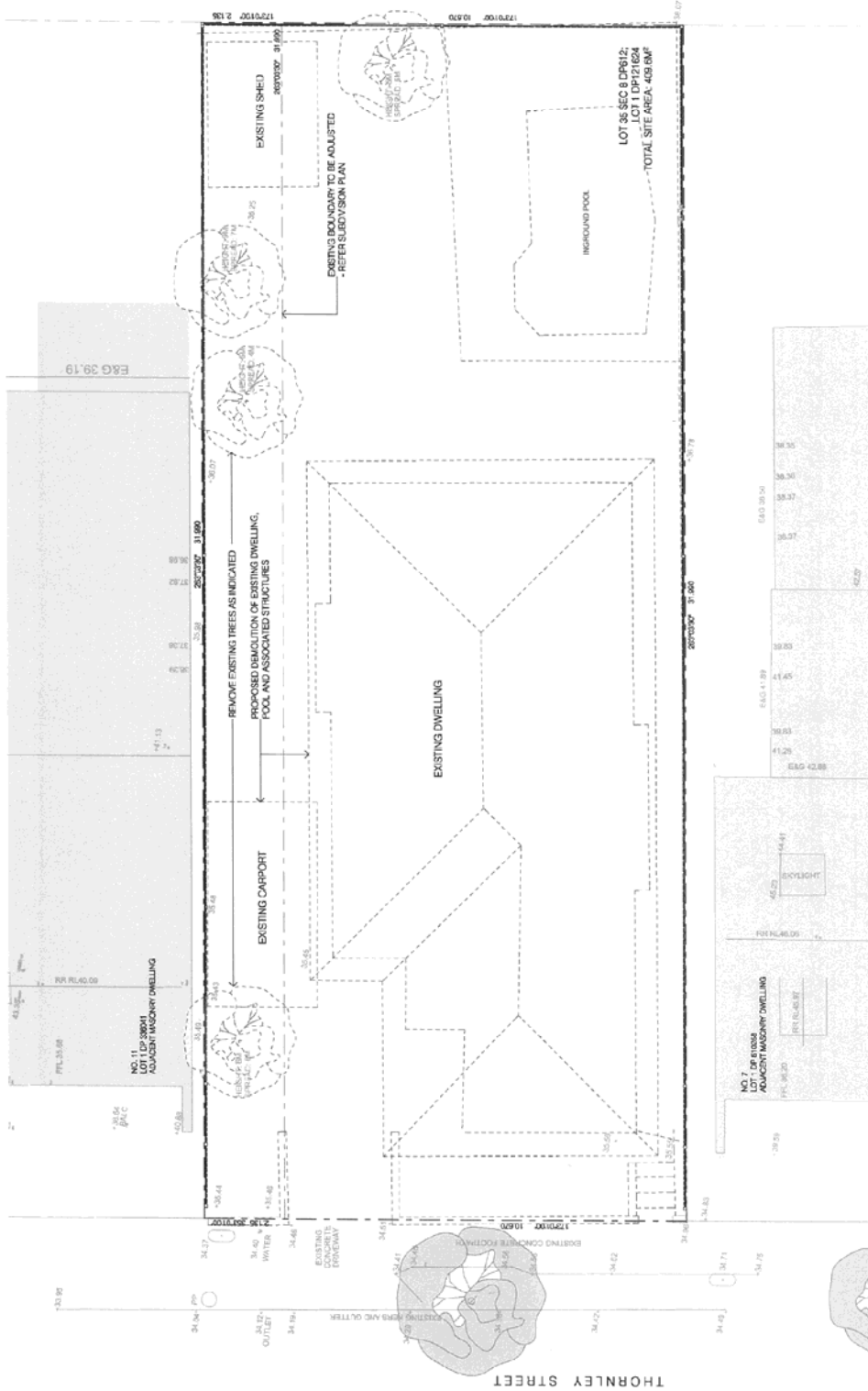
NOTES

1. BOUNDARY SURVEY HAS BEEN MADE DIMENSIONS AND AREA'S ARE AS SHOWN
2. ALL PROPOSED DEVELOPMENT IS TO BE CONFINED WITHIN THE BOUNDARIES OF THE LOT
3. ONLY TYPICAL SERVICES HAVE BEEN LOCATED
4. SPOT HEIGHTS INDICATE GENERAL TOPOGRAPHY
5. ONLY MAJOR TREES HAVE BEEN LOCATED
6. CONTIGUOUS INFILTRATION WALL BARRIERS TO BE WORKED UP

PLAN SHOWING DETAIL & LEVELS

9 THORNLEY STREET
LEIGHARDT NSW 2040
ORIGIN OF LEVELS CORNSNET NSW
GNSS (AHD)

DATE: 11/05/2016
DRAWN BY: C.A.C. (6145) (NSW)
REGISTERED SURVEYOR (P.L.T.)
PROJECT: SITE PLAN DATE: 05/05/2016 SCALE: 1:100 @ A2
CLIENT: PG DEVELOPMENT REF: PMDC
DGC SURVEYING PTY LTD
1/177-181/183/185/187
SUITE 3, 267-277 NORTON ST LEIGHARDT 2040
TEL: 02 9556 8818 EMAIL: info@dcgsurveys.com.au



1 DEMOLITION PLAN
1:100
0m 1 2 3 4 5 SCALE 1:100

NOTE: REFER TO ARBORIST'S REPORT FOR ADDITIONAL INFORMATION.

AMENDMENTS

REV	DATE	AMENDMENT
A	16/09/16	DATE SUBMISSION
B	07/11/16	DATE SUBMISSION PER BEI
		- rev-01- FRONT FENCE HEIGHT
		- rev-02- AMENDED FRONT FOOTPRINT
		- rev-03- AMENDED MATERIALS SCHEDULE
		- rev-05- ADDITIONAL SHADOW DIAGRAMS



LEGEND

[Solid black box]	EXISTING BUILDING FABRIC
[Dashed line box]	PROPOSED BUILDING FABRIC
[Dotted line box]	PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT
[Cross-hatched box]	PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT

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DETAILS

CLIENT NAME	6 THORNLEY STREET, LEICH-HARDIST NSW 2040
PROJECT ADDRESS	6 THORNLEY STREET, LEICH-HARDIST NSW 2040
SCALE	1:100 @ A3

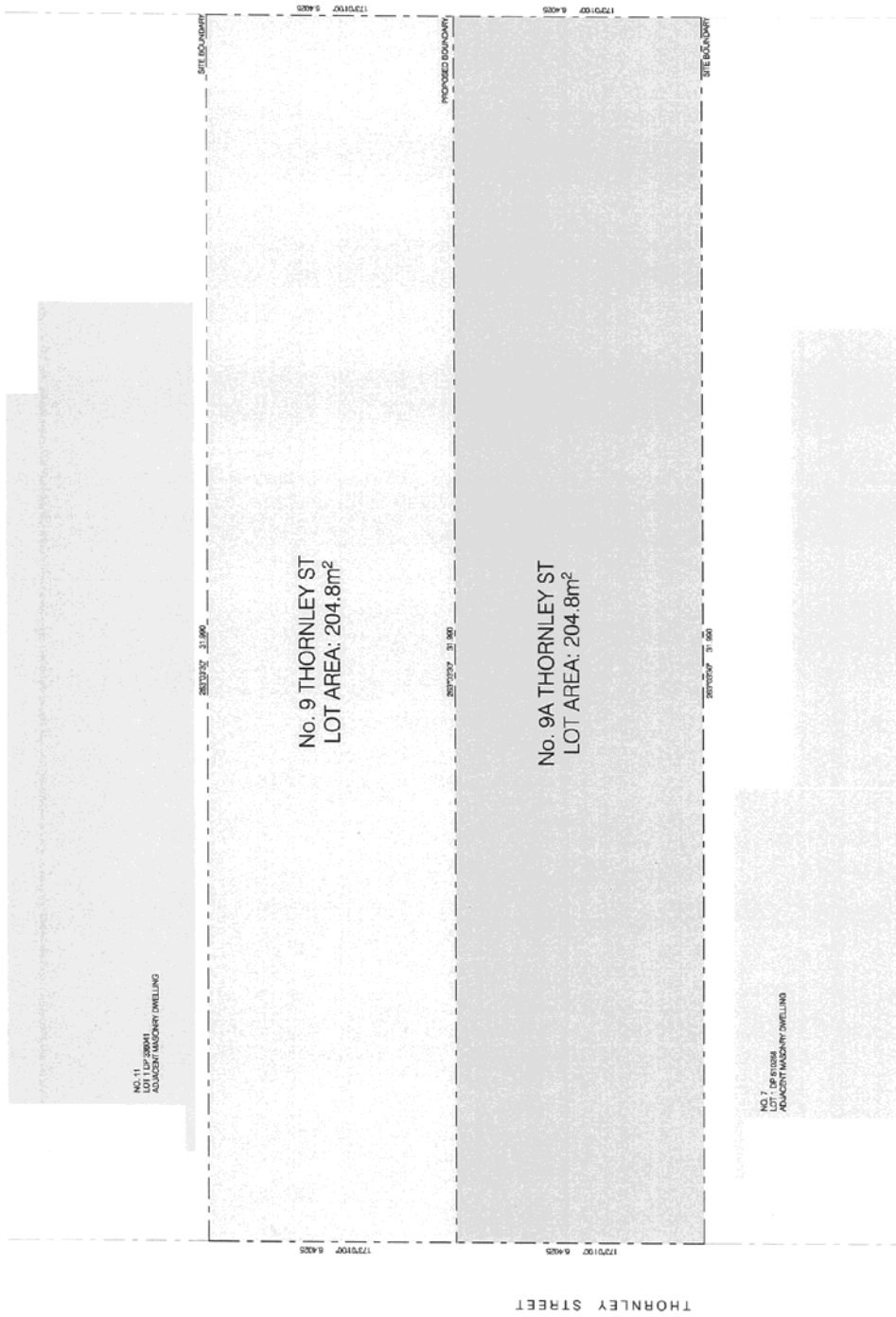
ARCHITECT

DA 04

DEMOLITION PLAN

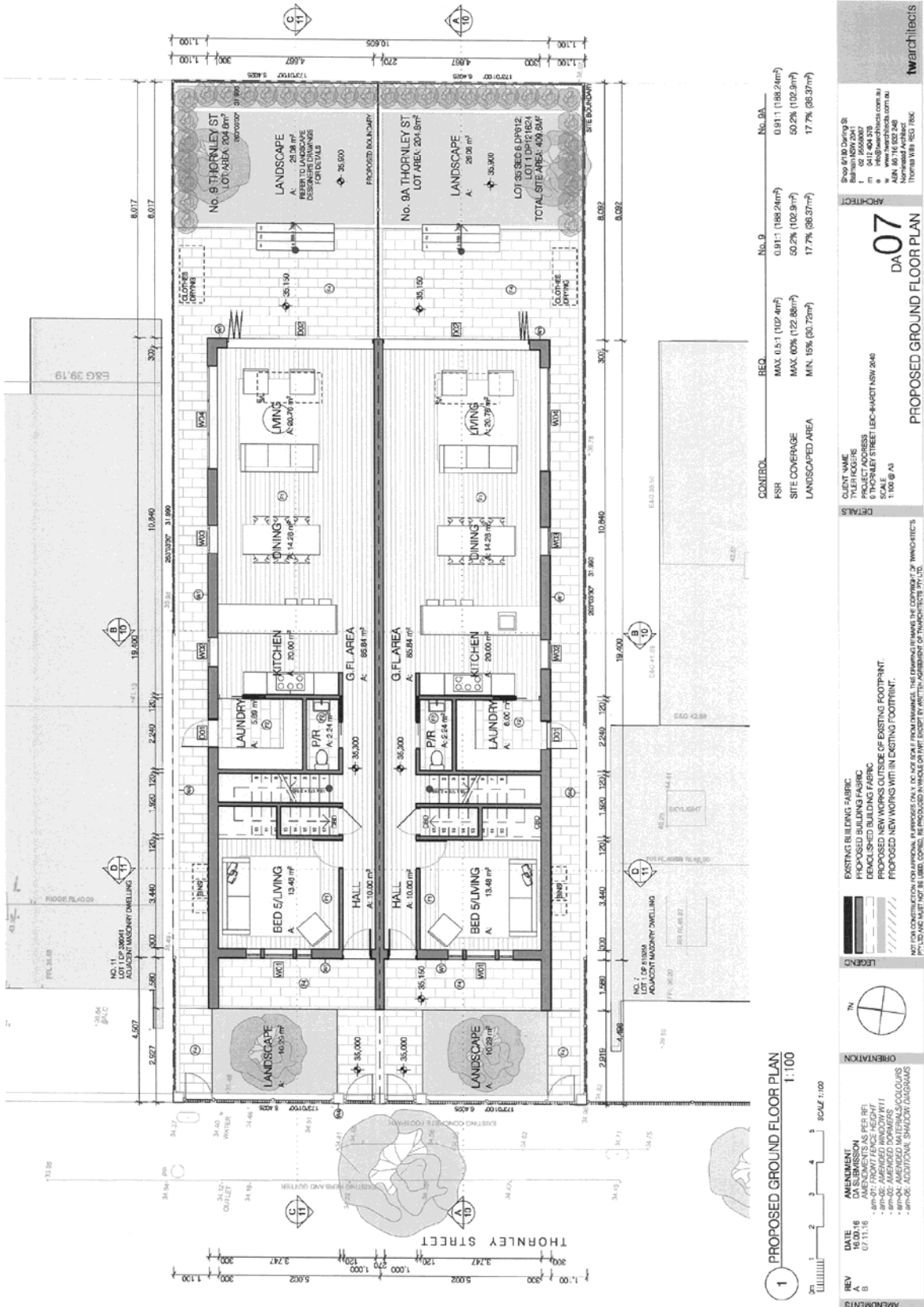
twatchliects

Shane Wilson Building 2
Level 1
100/102
L 100/102
M 0412 604 310
F 0412 604 310
W www.twatchliects.com.au
ABN: 60 174 650 248
Thomas Willi RESD 1860



1 PROPOSED SUBDIVISION PLAN
1:100
SCALE 1:100

AMENDMENTS REV DATE BY A 10/03/18 CA GIBBONSON R 07/11/18 - BPY-02 AMENDED DORMERS - BPY-03 AMENDED DORMERS - BPY-04 AMENDED DORMERS - BPY-05 AMENDED DORMERS - BPY-06 AMENDED DORMERS		CREATION TN 		LEGEND EXISTING BUILDING FABRIC EXISTING BUILDING FABRIC PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT NOT FOR CONSTRUCTION FOR APPROVAL PURPOSES ONLY. DO NOT SCALE FROM DRAWING. THE DRAWING SHALL BE CONSIDERED AS THE AUTHORITY FOR THE PROJECT.		DETAILS CLIENT NAME TWARCHITECTS PROJECT ADDRESS 100/100 THORNLEY STREET LIC8444007 NSW 2046 SCALE 1:100 @ A3		ARCHITECT DA 05 PROPOSED SUBDIVISION PLAN twarchitects Shop 9/10 Darling St Marrickville NSW 2041 Tel: 0412 204 278 Email: info@twarchitects.com.au NSW Reg 11602246 Nominated Architect Thomas Will 1821 7800	
---	--	---------------------------	--	--	--	--	--	---	--



CONTROL	REQ.	No. D	No. DA
FSR	MAX 0.5:1 (102.4m ²)	0.91:1 (188.24m ²)	0.91:1 (188.24m ²)
SITE COVERAGE	MAX 60% (122.88m ²)	50.2% (102.9m ²)	50.2% (102.9m ²)
LANDSCAPED AREA	MIN 15% (30.72m ²)	17.7% (36.37m ²)	17.7% (36.37m ²)

Shop 4/10 Darling St
Barron NSW 2041
t 0412 401 578
e info@twarchitects.com.au
AS/NZS 1600:2008
Not a Licensed Architect
Thomas Wirth 1001 1006

CLIENT NAME
TYLER HODGERS
ADDRESS
6 THORNLEY STREET LEC-H-HCCT NSW 2048
SCALE
1:100 @ A3

EXISTING BUILDING FABRIC
PROPOSED BUILDING FABRIC
DEMOLISHED BUILDING FABRIC
PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT
PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT
PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT
PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT

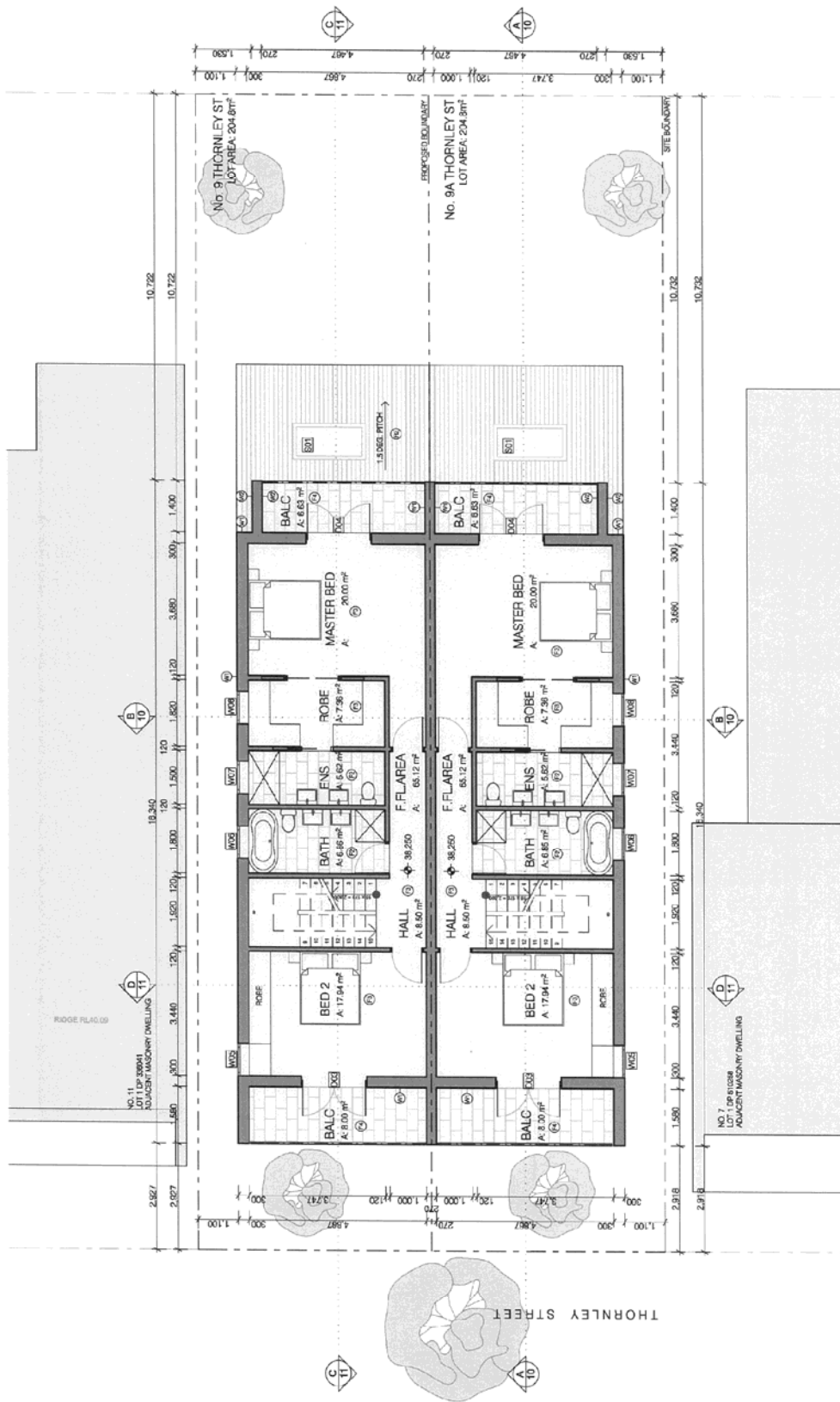
LEGEND

ORIENTATION

AMENDMENTS

REV	DATE	AMENDMENT
A	16.03.18	DA SUBMISSION
B	07.11.18	AMENDMENTS PER IPI
C	07.11.18	- 8P-02 AMENDED WINDOW W11
D	07.11.18	- 8P-02 AMENDED WINDOW W11
E	07.11.18	- 8P-02 AMENDED WINDOW W11
F	07.11.18	- 8P-02 AMENDED WINDOW W11
G	07.11.18	- 8P-02 AMENDED WINDOW W11
H	07.11.18	- 8P-02 AMENDED WINDOW W11
I	07.11.18	- 8P-02 AMENDED WINDOW W11
J	07.11.18	- 8P-02 AMENDED WINDOW W11
K	07.11.18	- 8P-02 AMENDED WINDOW W11
L	07.11.18	- 8P-02 AMENDED WINDOW W11
M	07.11.18	- 8P-02 AMENDED WINDOW W11
N	07.11.18	- 8P-02 AMENDED WINDOW W11
O	07.11.18	- 8P-02 AMENDED WINDOW W11
P	07.11.18	- 8P-02 AMENDED WINDOW W11
Q	07.11.18	- 8P-02 AMENDED WINDOW W11
R	07.11.18	- 8P-02 AMENDED WINDOW W11
S	07.11.18	- 8P-02 AMENDED WINDOW W11
T	07.11.18	- 8P-02 AMENDED WINDOW W11
U	07.11.18	- 8P-02 AMENDED WINDOW W11
V	07.11.18	- 8P-02 AMENDED WINDOW W11
W	07.11.18	- 8P-02 AMENDED WINDOW W11
X	07.11.18	- 8P-02 AMENDED WINDOW W11
Y	07.11.18	- 8P-02 AMENDED WINDOW W11
Z	07.11.18	- 8P-02 AMENDED WINDOW W11

1 PROPOSED GROUND FLOOR PLAN
1:100
SCALE 1:100



CONTROL	BEG.	No. 9	No. 9A
FSR	MAX 0.6:1 (102.4m ²)	0.61:1 (136.24m ²)	0.61:1 (136.24m ²)
SITE COVERAGE	MAX 60% (122.86m ²)	50.2% (102.9m ²)	50.2% (102.9m ²)
LANDSCAPED AREA	MIN 15% (30.72m ²)	17.7% (39.37m ²)	17.7% (39.37m ²)

1 PROPOSED FIRST FLOOR PLAN
 1:100
 SCALE 1:100

AMENDMENTS	
REV	DATE
A	10.03.16
B	07.11.16

AMENDMENT
 DA: SUBMISSION
 DA: 10.03.16
 -IMP-01: FRONT FENCE HEIGHT
 -IMP-02: AMENDED WINDOW W/HT
 -IMP-03: AMENDED DOORWAYS
 -IMP-05: ADDITIONAL SHADOW DIAGRAMS

EXISTING BUILDING FABRIC
 PROPOSED BUILDING FABRIC
 DEMOLISHED BUILDING FABRIC
 PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT.
 PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT.

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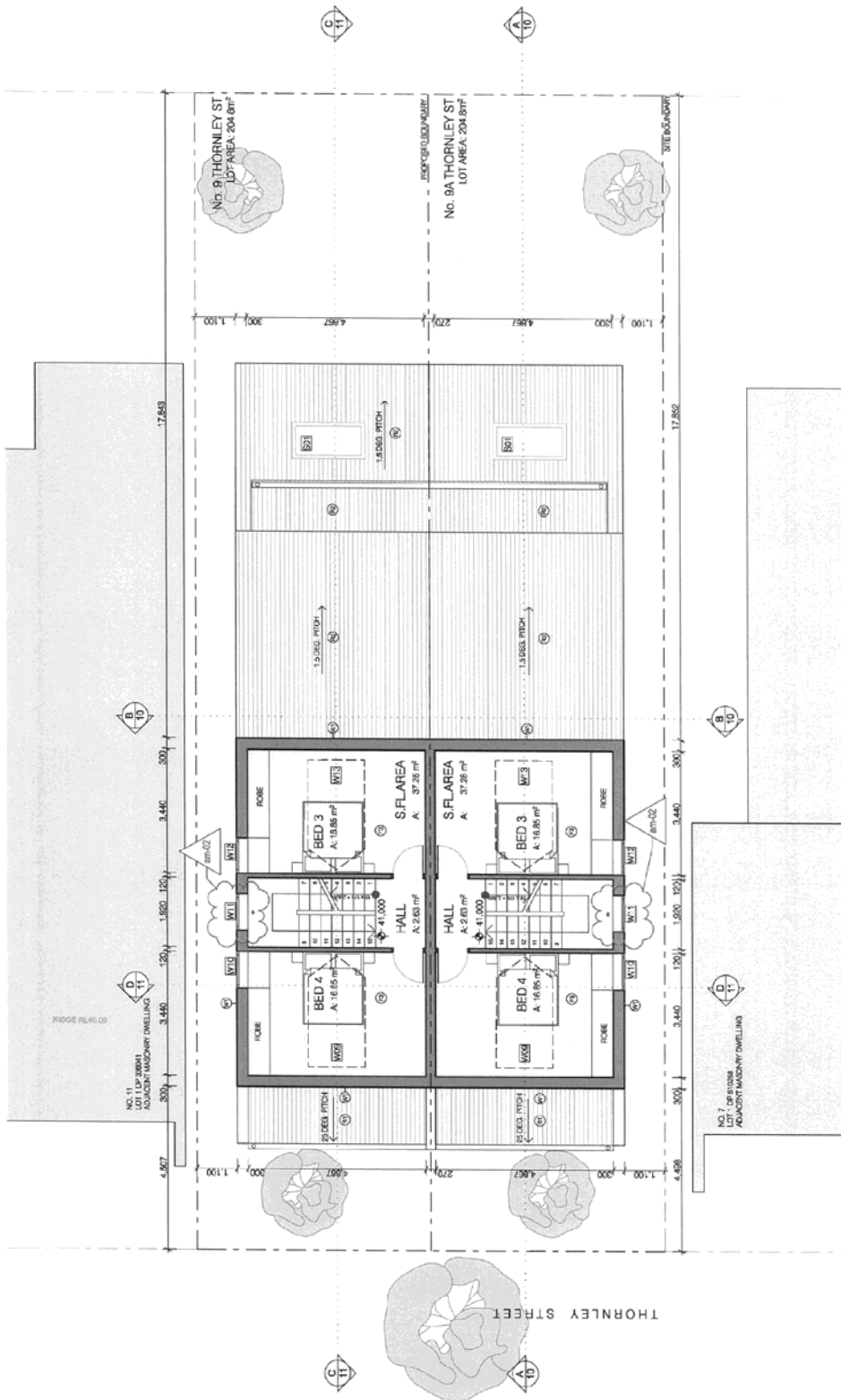
LEGEND
 TV
 C
 THORNFIELD STREET
 THORNFIELD STREET
 THORNFIELD STREET
 THORNFIELD STREET

CLIENT NAME
 THE ARCHITECTS
 PWC ARCHITECTS
 8 THORNFIELD STREET, LEICHHARDT NSW 2040
 SCALE
 1:100 @ A3

DA 08
 PROPOSED FIRST FLOOR PLAN

ARCHITECT
 Shop #1/16, Darling St
 Leichhardt NSW 2040
 P O BOX 665000
 CA 15 404 3173
 www.pwcarchitects.com.au
 G 02 9550 1616
 A 61 955 328 348
 Northward Archibald
 Thornfield Hills REG 7000

twarchitects



CONTROL	REQ.	No. 9	No. 9A
FSR	MAX. 0.5:1 (102.4m ²)	0.91:1 (188.24m ²)	0.91:1 (188.24m ²)
SITE COVERAGE	MAX. 60% (122.88m ²)	50.2% (102.91m ²)	50.2% (102.91m ²)
LANDSCAPED AREA	MIN. 15% (30.72m ²)	17.7% (36.37m ²)	17.7% (36.37m ²)

CLIENT NAME
 THERHOODS
 PROJECT ADDRESS
 10/11-16 THORNLEY STREET LEICHHARDT NSW 2046
 SCALE
 1:100 @ A3

EXISTING BUILDING FABRIC
 PROPOSED BUILDING FABRIC
 DEMOLISHED BUILDING FABRIC
 PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT
 PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT.

NO. 11 THORNLEY STREET ADJACENT MASONRY DWELLINGS
 RIDGE RL 40.00
 NO. 9 THORNLEY STREET LOT AREA 204.6m²
 NO. 9A THORNLEY STREET LOT AREA 204.6m²

NO. 11 THORNLEY STREET ADJACENT MASONRY DWELLINGS
 LOT 1 OF FLOOR ADJACENT MASONRY DWELLINGS

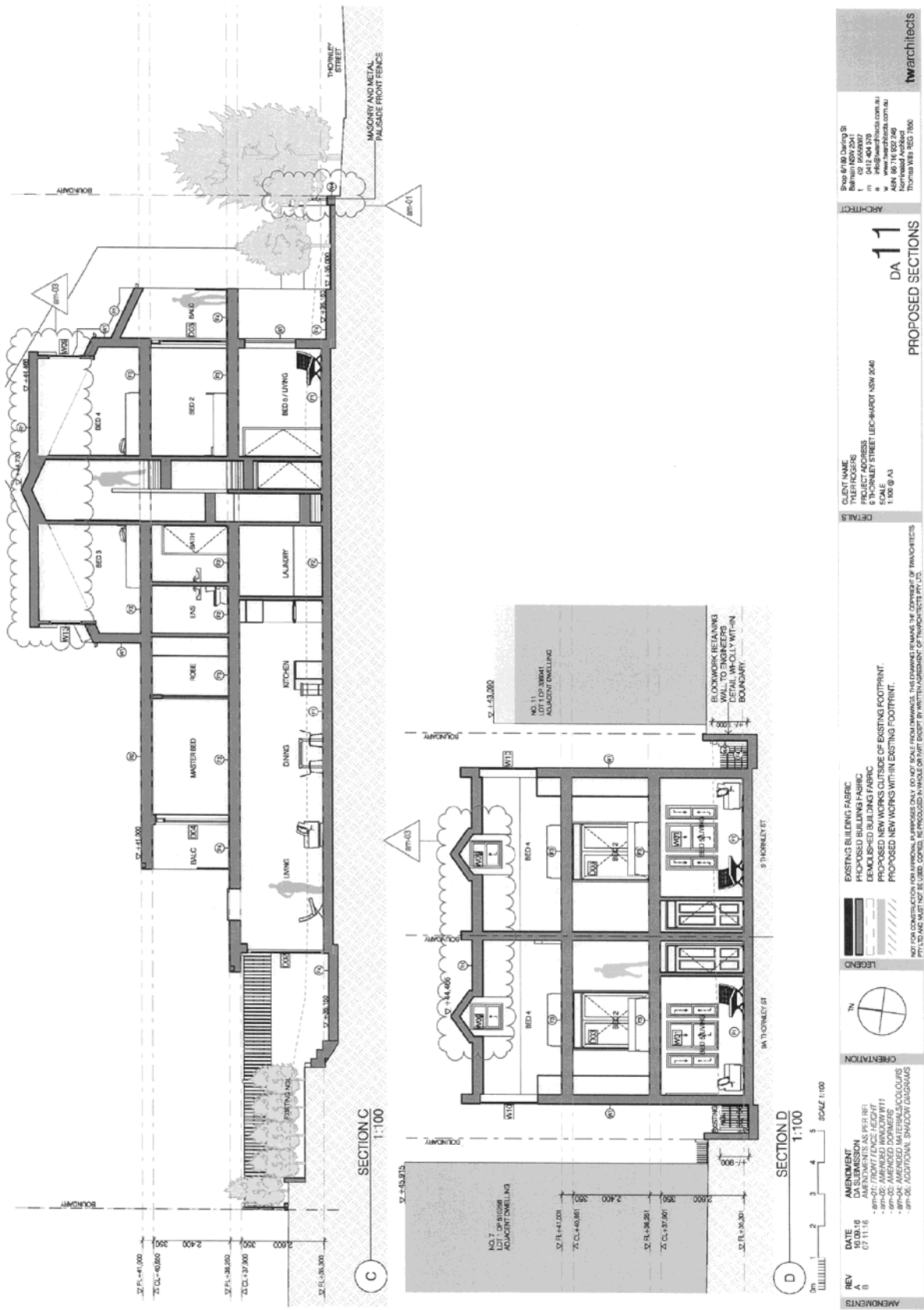
PROPOSED ATTIC PLAN
 1:100
 SCALE 1:100

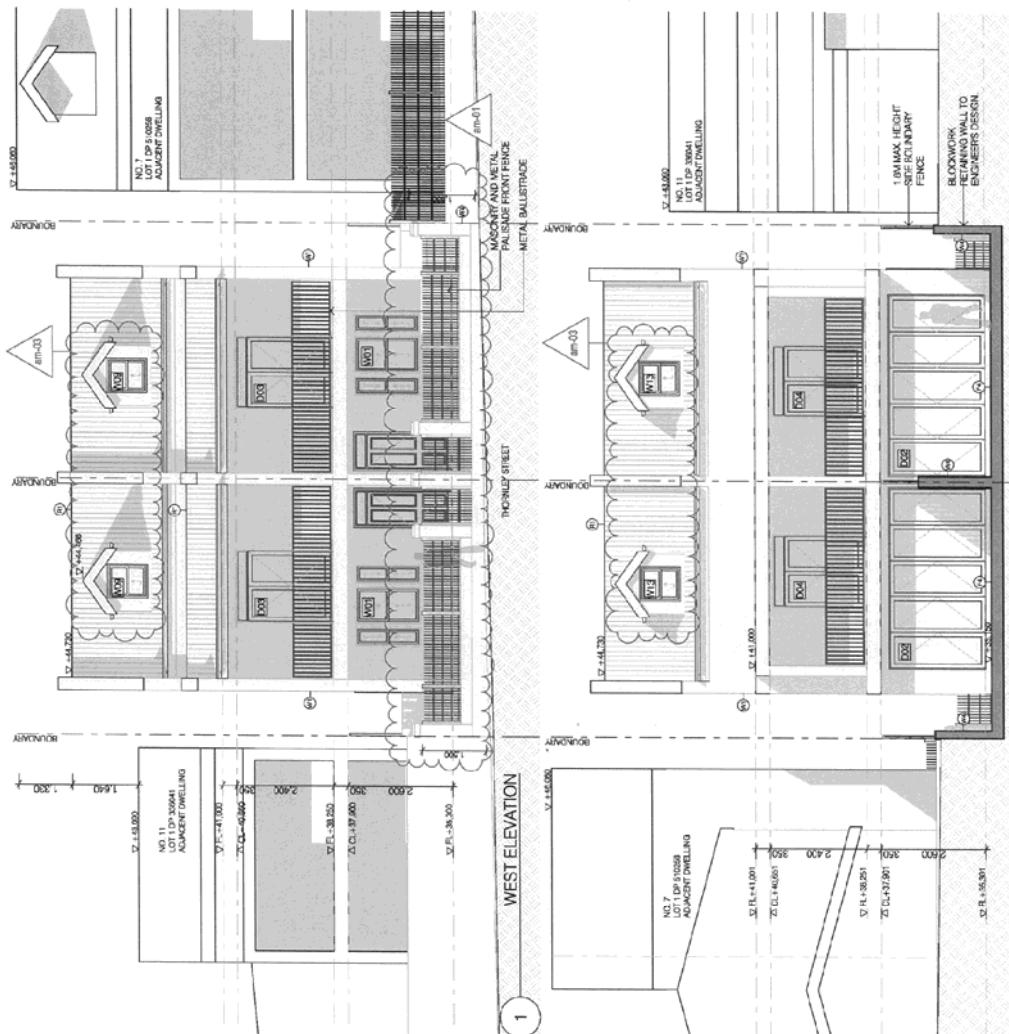
AMENDMENTS
 DATE 10.03.16
 DA SUBMISSION 07.11.16
 AMENDMENTS PER IBI
 - em-01 AMENDED WINDOW W11
 - em-02 AMENDED FORMERS COLOURS
 - em-05 ADDITIONAL SHADOW DIAGRAMS

LEGEND
 NORTH
 ORIENTATION

PROPOSED ATTIC PLAN
 DA 09

ARCHITECT
 twarchitects
 Shop 9/10 Darling St
 Balmain NSW 2041
 t 0412 404 578
 e info@twarchitects.com.au
 f 10/11-16 Thornley Street
 AFRN 80 146 820 248
 Non-Residential Architect
 11/04/2016 W16 1033 1866





0m 1 2 3 4 5 SCALE 1:100

REV	DATE	AMENDMENT
0	07/11/18	AMENDMENT PER REF
1		AMENDMENTS AS PER REF
2		AMENDMENTS AS PER REF
3		AMENDMENTS AS PER REF
4		AMENDMENTS AS PER REF
5		AMENDMENTS AS PER REF

AMENDMENTS



LEGEND	DESCRIPTION
[Pattern]	EXISTING BUILDING FABRIC
[Pattern]	PROPOSED BUILDING FABRIC
[Pattern]	PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT
[Pattern]	PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT

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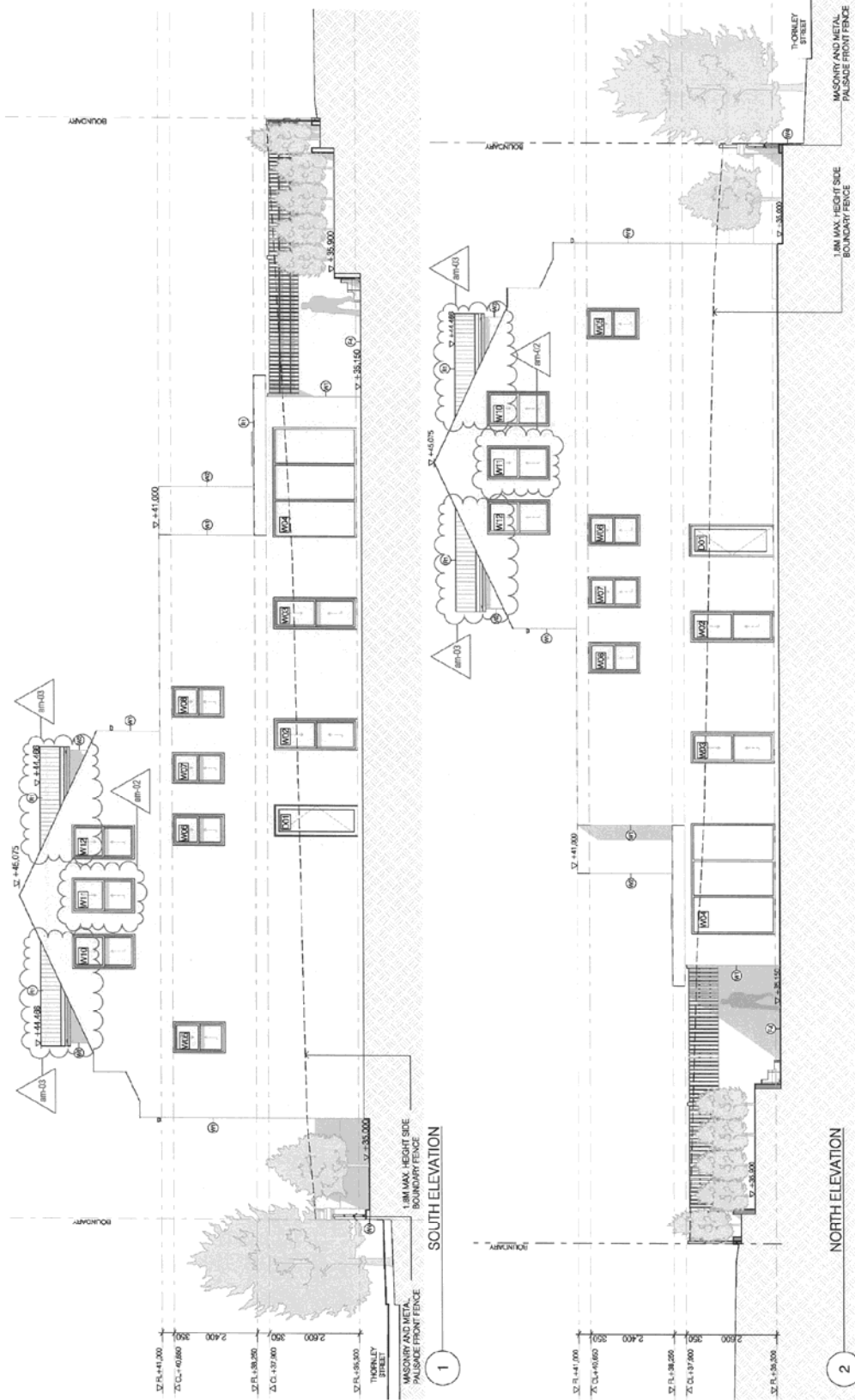
PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT

PROPOSED BUILDING FABRIC

PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT

EXISTING BUILDING FABRIC

CLIENT NAME
TWARCHITECTS
PROJECT ADDRESS
6 THORNEY STREET LEICHAHART NSW 2040
1:100 @ A3
ARCHITECT
DA 12
PROPOSED ELEVATIONS
Shop 01/10 Darling St
Sydney NSW 2011
T: 02 95500037
F: 02 95500038
www.twarchitects.com.au
M: 04 9433 3333
Northmead Australia
Thomas Willm Reg 7800
twarchitects



AMENDMENTS

REV	DATE	AMENDMENT
0	07/11/16	AMENDMENT FOR PERMITTED WORKS AS PER REF
1		- 07-01: FRONT FENCE HEIGHT
2		- 07-02: AMENDED DORMERS
3		- 07-03: AMENDED MATERIALS/COLORS
4		- 07-04: ADDITIONAL SHADING DIAGRAMS

CREATION

LEGEND

- EXISTING BUILDING FABRIC
- PROPOSED BUILDING FABRIC
- PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT
- PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT

DETAILS

CLIENT NAME: TALEN HOUSING
 PROJECT ADDRESS: THORLEY STREET LEC-BAYVIEW NSW 2466
 SURVEYOR: DAVID M. HARRIS
 DATE: 11/03/2016
 SCALE: 1:100 @ A3

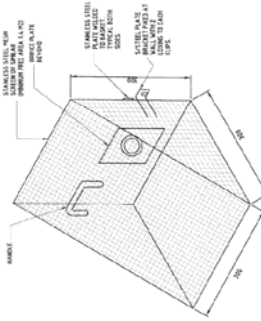
ARCHITECT: tward architects
 Shop 01/10 Darling St
 Balmain NSW 2041
 T: 02 9550 4000
 F: 02 9550 4005
 P: 155/156 Darling St
 Balmain NSW 2041
 A: 155/156 Darling St
 Balmain NSW 2041
 Non-Residential Architect
 Thomas With Reg 7080

PROPOSED ELEVATIONS

DA 13

- DESIGN NOTES**
1. STEELWATER PIPES ARE TO BE UPVC SINKER GRADE AND SHALL BE INSTALLED IN ACCORDANCE WITH AS2968
 2. DOWNPIPES ARE TO BE SEALCO AND GLEIC JANTS
 3. ALL PIPES ARE TO BE CONNECTED TO THE NEAREST STEELWATER MANHOLE
 4. ALL PIPES FROM THE SITE IS TO BE RETAINED IN AN STEEL DETENTION SYSTEM PIT & PIPE SYSTEM THE OUTLETS OF THE ON SITE DETENTION SYSTEMS ARE TO BE CONNECTED TO RCP AND CONNECTED AT THE FRONT OF THE PROPERTY
 5. ALL PIPES TO BE INSTALLED IN ACCORDANCE WITH AS2968 AND SHALL BE CONCRETE AND SHALL BE 150mm DIA UPVC SINKER GRADE PIPES
 6. STEELWATER PIPES ARE TO BE LAD AT A MINIMUM GRADE OF 1% UNLESS NOTED OTHERWISE
 7. GENERAL LAYOUT SHALL BE REFERRED TO CONCEPT LAYOUT AND LEVELS
 8. ALL LEVELS ARE IN MVD

- DESIGN DETAILS**
1. DOWN PIPE AND DOWNPIPES ARE DESIGNED FOR 10 YEAR ARI
 2. INTENSITY FREQUENCY DURATION (IFD) DESIGN CHANT FOR LEACHMATE NOW OBTAINED FROM DUMVAL OF HYDROLOGY HAS BEEN USED TO DESIGN ON SITE DETENTION SYSTEM
 3. ON SITE DETENTION HAS BEEN DESIGNED USING DUMVAL'S LIAK MODEL



GALVANISED STEEL TRIANGULAR TRASH RACK
SCALE: 1:10

PIT NO	PIT TYPE	SIZE INTERNAL (mm)	DEPTH (mm)	MATERIAL	GRADE	DRAINAGE
1	DETENTION PIT	1000x1000	2000	304L	1:1	HEAVY DUTY GRATE
2	DETENTION PIT	1000x1000	2000	304L	1:1	HEAVY DUTY GRATE
3	DETENTION PIT	1000x1000	2000	304L	1:1	HEAVY DUTY GRATE
4	DETENTION PIT	1000x1000	2000	304L	1:1	HEAVY DUTY GRATE
5	DETENTION PIT	1000x1000	2000	304L	1:1	HEAVY DUTY GRATE

N.O.	REVISED PLAN	REVISION	DATE
A			18/11/2017

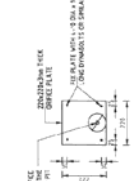
FUSION
Engineering Services
3/4-1 PICKLE STREET, MOORE PONDS
VIC 3049
10/100 WILSON STREET, CAMPSIE
NSW 2204
TEL: 1800 877 750
EMAIL: info@fusionengineering.com.au
www.fusionengineering.com.au
ADVISED BY: JAMES ROGERS
DESIGNED BY: RO
DRAWN BY: GS
APPROVED BY: AS

CLIENT: JAMES ROGERS
PROJECT TITLE: PROPOSED STEELWATER DRAINAGE DESIGN
9 'HICKLE' STREET, LEIGHMOUNT NSW 2340

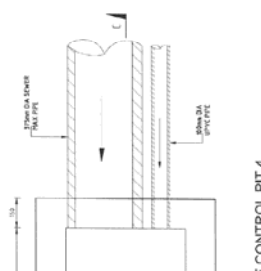
DRAWING TITLE: DRAINAGE DETAILS
DATE: 09-09-2016
SCALE: 2316:2348
SHEET NO: S7
AS NOTED



SECTION C-C
SCALE: 1:10



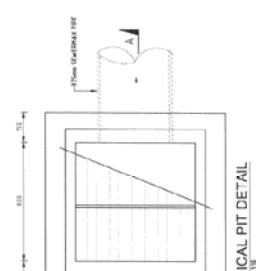
ORIFICE PLATE OF PIT 2
SCALE: 1:10



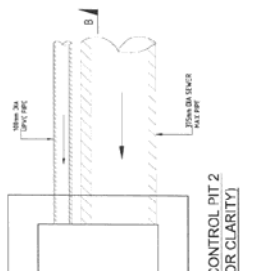
PLAN VIEW OF CONTROL PIT 4
(LID OMITTED FOR CLARITY)
SCALE: 1:10



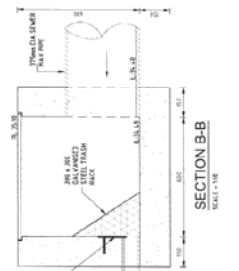
ORIFICE PLATE OF PIT 4
SCALE: 1:10



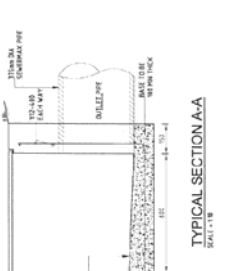
TYPICAL PIT DETAIL
SCALE: 1:10



PLAN VIEW OF CONTROL PIT 2
(LID OMITTED FOR CLARITY)
SCALE: 1:10



SECTION B-B
SCALE: 1:10



TYPICAL SECTION A-A
SCALE: 1:10

SOIL RETENTION (LID OMITTED)

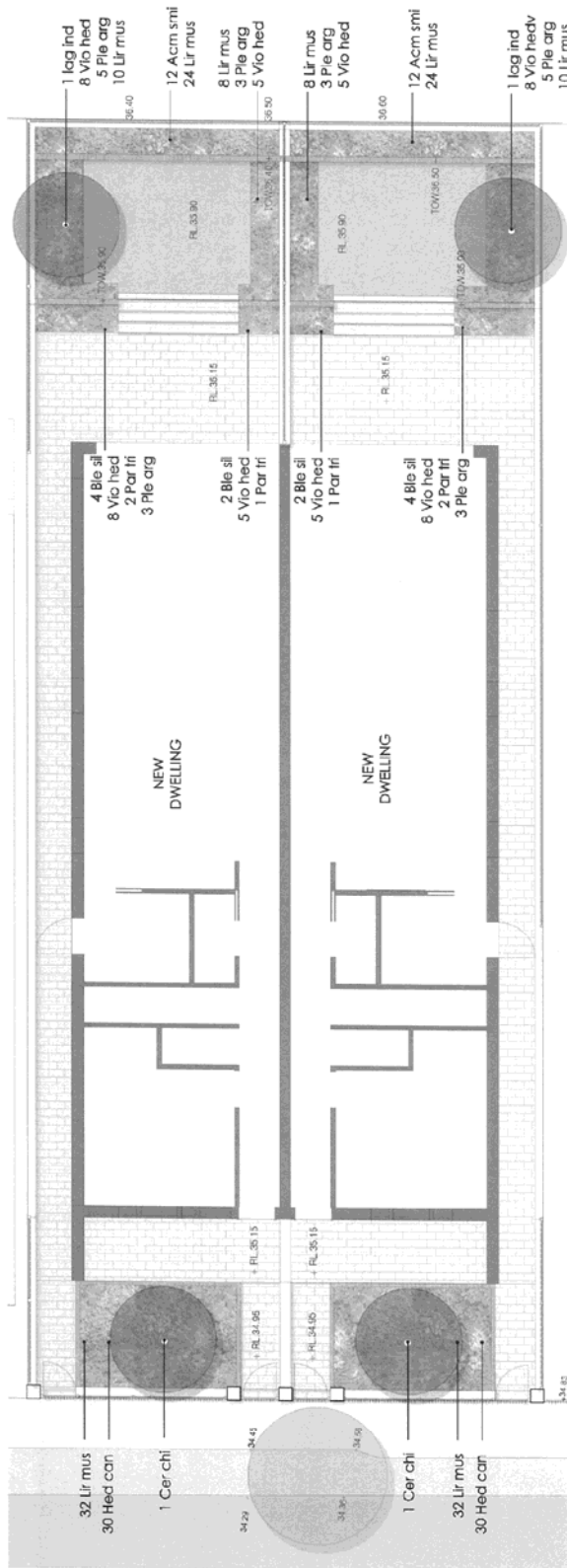
AREA OF DEVELOPMENT SITE = 4781 M²
PRE DEVELOPMENT IMPERVIOUS AREA = 197 M²
POST DEVELOPMENT IMPERVIOUS AREA = 280 M²
PRE DEVELOPMENT PERMEABLE AREA = 4684 M²
POST DEVELOPMENT PERMEABLE AREA = 4404 M²
PRE DEVELOPMENT TIME OF CONCENTRATION = 5 MINUTES
POST DEVELOPMENT TIME OF CONCENTRATION = 5 MINUTES
5 YEAR ARI PRE DEVELOPMENT FLOW (PERMISSIBLE STEEL TRASH GRATE) = 17 L/S
ESTIMATED LONG DRAINAGE LIAK MODEL

STORAGE VOLUME (M ³)	POST DEVELOPMENT FLOW		MAXIMUM FLOW RATE (L/S)		AUTOMATICALLY CONTROLLED FLOW RATE (L/S)	
	5 YEAR ARI	10 YEAR ARI	10 MIN	TOTAL	10 MIN	TOTAL
3	17	4	1	17	1	17
5	17	4	1	17	1	17
10	17	4	1	17	1	17
20	17	4	1	17	1	17
30	17	4	1	17	1	17
40	17	4	1	17	1	17
50	17	4	1	17	1	17

ON SITE DETENTION FLOW (PERMISSIBLE STEEL TRASH GRATE) = 17 L/S
PIT AND PIPE SYSTEM: 150mm DIA UPVC SINKER GRADE PIPE (1000mm DIA) x 1000mm DIA
DETENTION PIT = 2000mm DIA x 2000mm DIA x 2000mm DIA
TOTAL DETENTION VOLUME = 2.80 M³

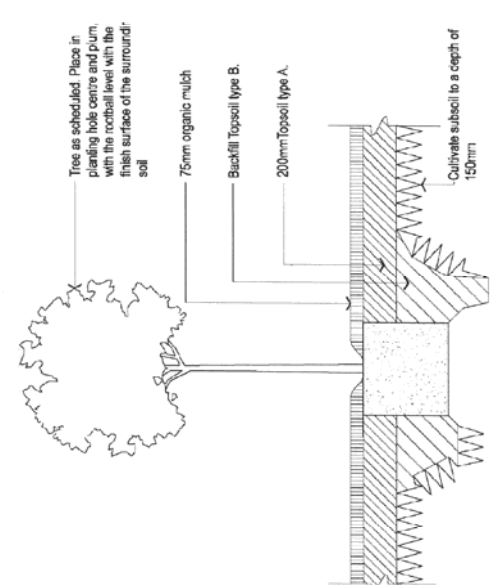
THREE (3) 150mm DIA UPVC SINKER GRADE PIPES IN WALL OF CONTROL PIT 2 AND PIT 4
ANIMAL 100mm DIA UPVC SINKER GRADE PIPE IN WALL OF CONTROL PIT 2 AND PIT 4
150mm DIA UPVC SINKER GRADE PIPE IN WALL OF CONTROL PIT 2 AND PIT 4
150mm DIA UPVC SINKER GRADE PIPE IN WALL OF CONTROL PIT 2 AND PIT 4
THE WALL OF CONTROL PIT 2 AND PIT 4 SHALL BE CONSTRUCTED WITH PERMISSIBLE STEEL TRASH GRATE
ACCEPTABLE FLOW RATE SHALL BE CONSIDERED AS THE BASIS OF THE DESIGN OF THE TRASH GRATE
ADJUSTMENT AS PER LOCAL REQUIREMENTS

NOTE: THE ON SITE DETENTION HAS BEEN DESIGNED USING DUMVAL'S LIAK MODEL



LEGEND

- Existing Street Tree
- New Tree
Refer plant schedule
- Turf
Refer plant schedule
- Mass Planting
Refer plant schedule
- Unit Paving
- Brick edge/wall to match dwelling



PLANT SCHEDULE - 9 Thornley St, Leichhardt

CODE	BOTANICAL NAME	COMMON NAME	Indicative width (mm)	Indicative height (mm)	Plant Status	Indicative number (m ²)	TOTALS
Tree 1	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 2	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 3	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 4	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 5	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 6	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 7	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 8	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 9	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 10	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 11	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 12	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 13	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 14	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 15	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 16	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 17	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 18	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 19	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 20	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 21	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 22	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 23	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 24	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 25	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 26	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 27	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 28	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 29	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 30	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 31	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 32	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 33	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 34	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 35	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 36	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 37	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 38	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 39	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 40	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 41	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 42	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 43	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 44	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 45	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 46	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 47	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 48	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2
Tree 49	Grass Ashwood 'Aussie Ash'	Per Tree	200	400	100%	AS 100mm	2
Tree 50	Grass Ashwood 'Aussie Ash'	Open Plant	200	400	100%	AS 100mm	2

06/09/2016
REV A

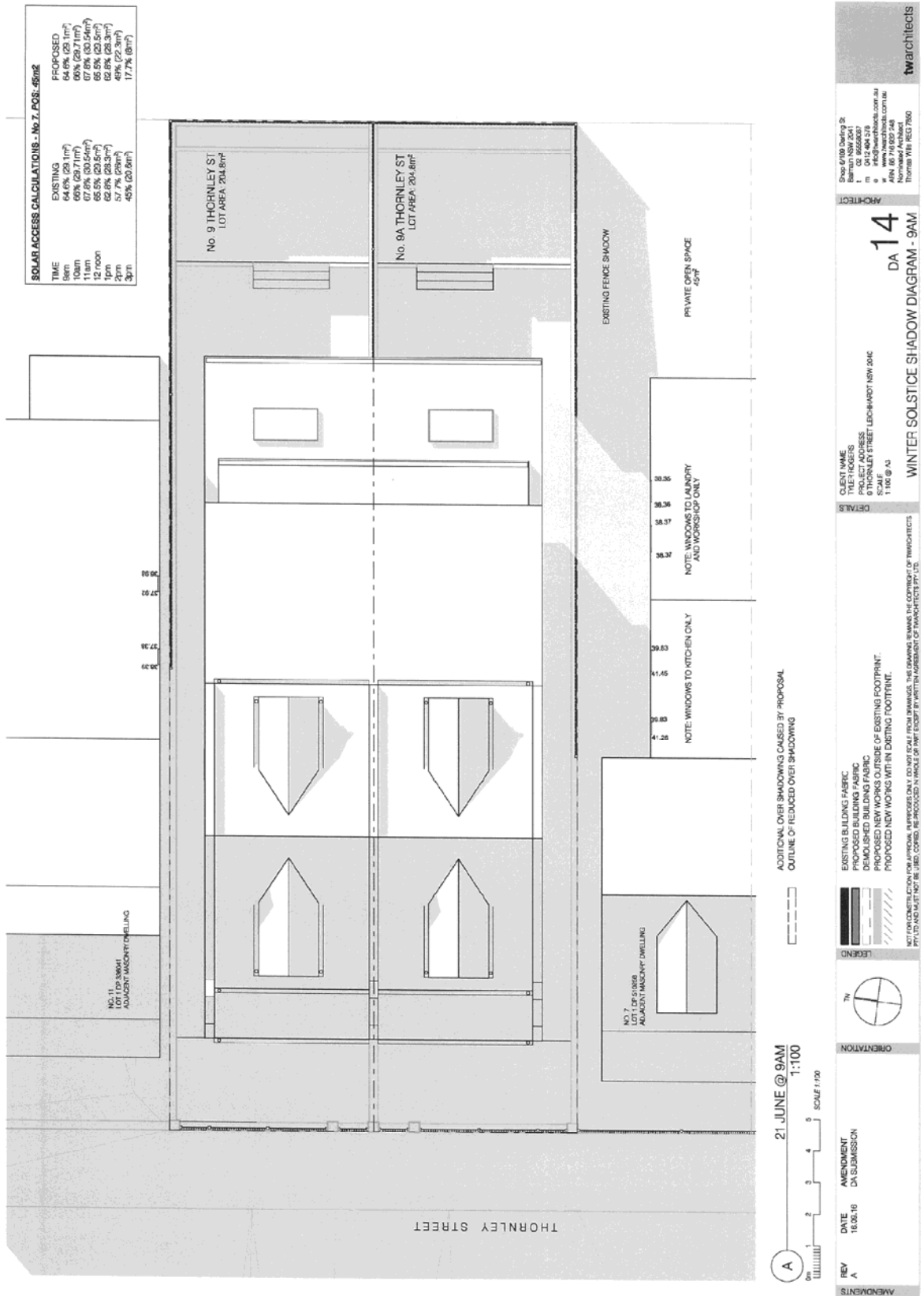
9 Thornley St Leichhardt
LANDSCAPE DRAFT DA

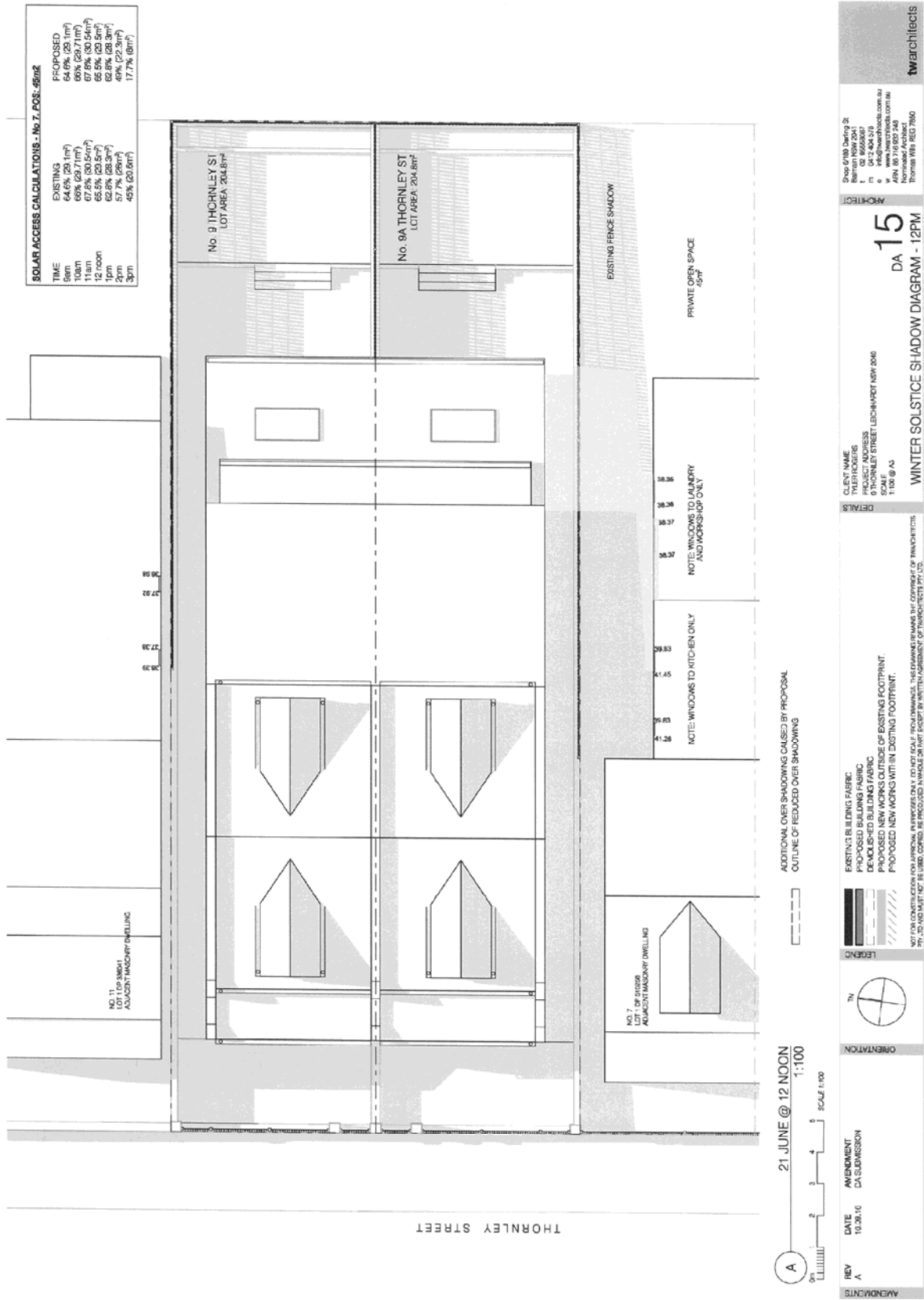


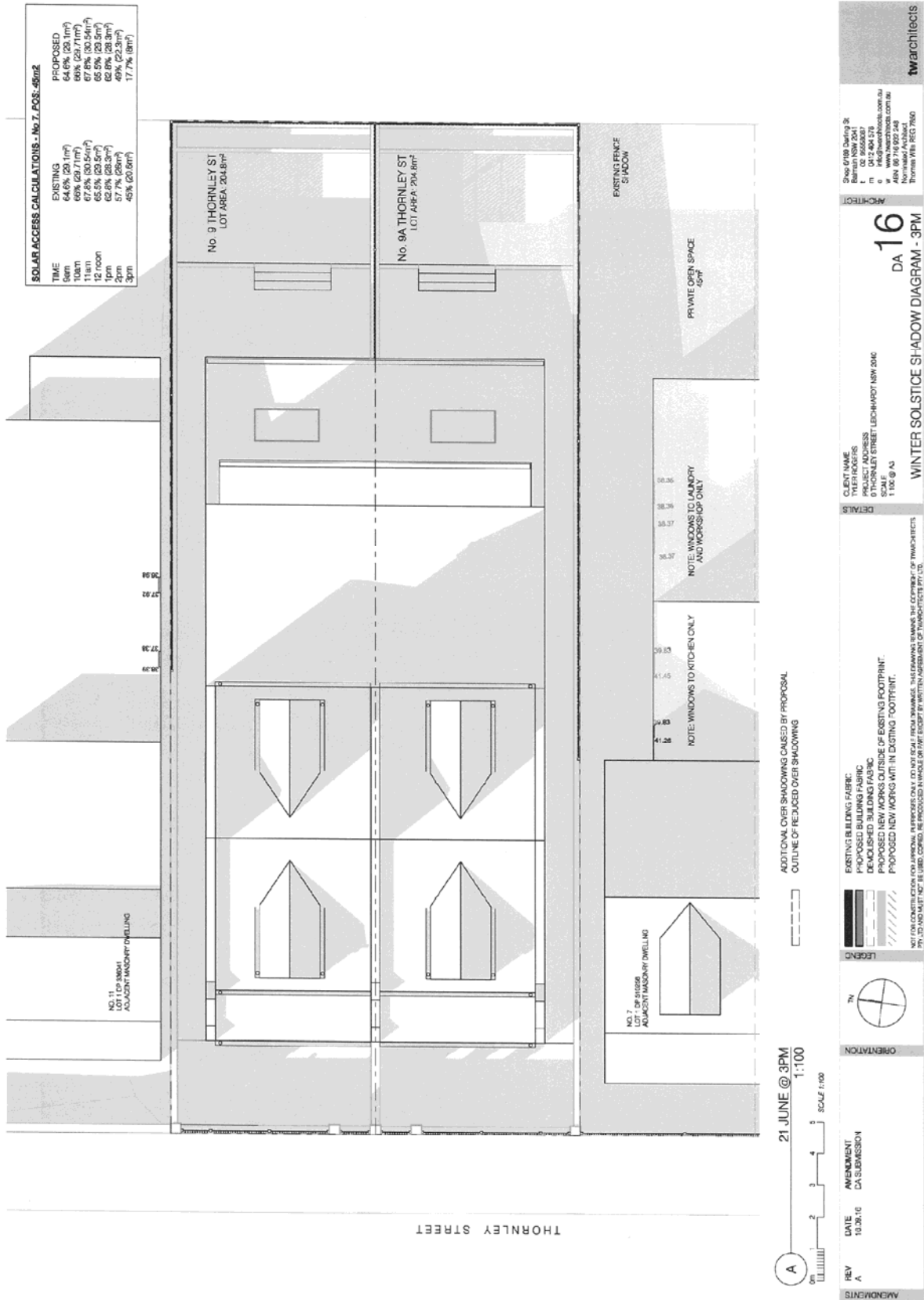
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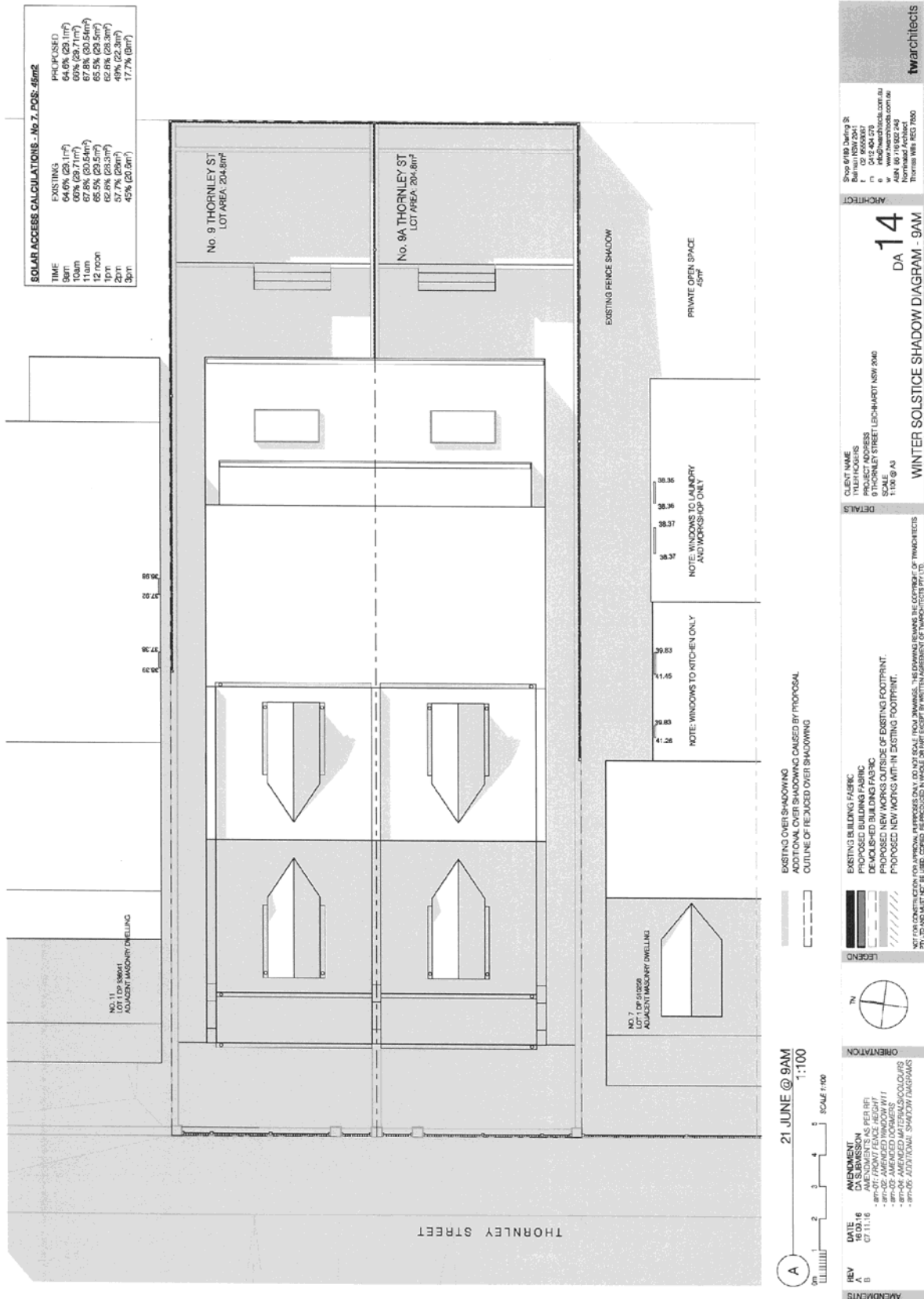
TW ARCHITECTS
JAMES ROGERS

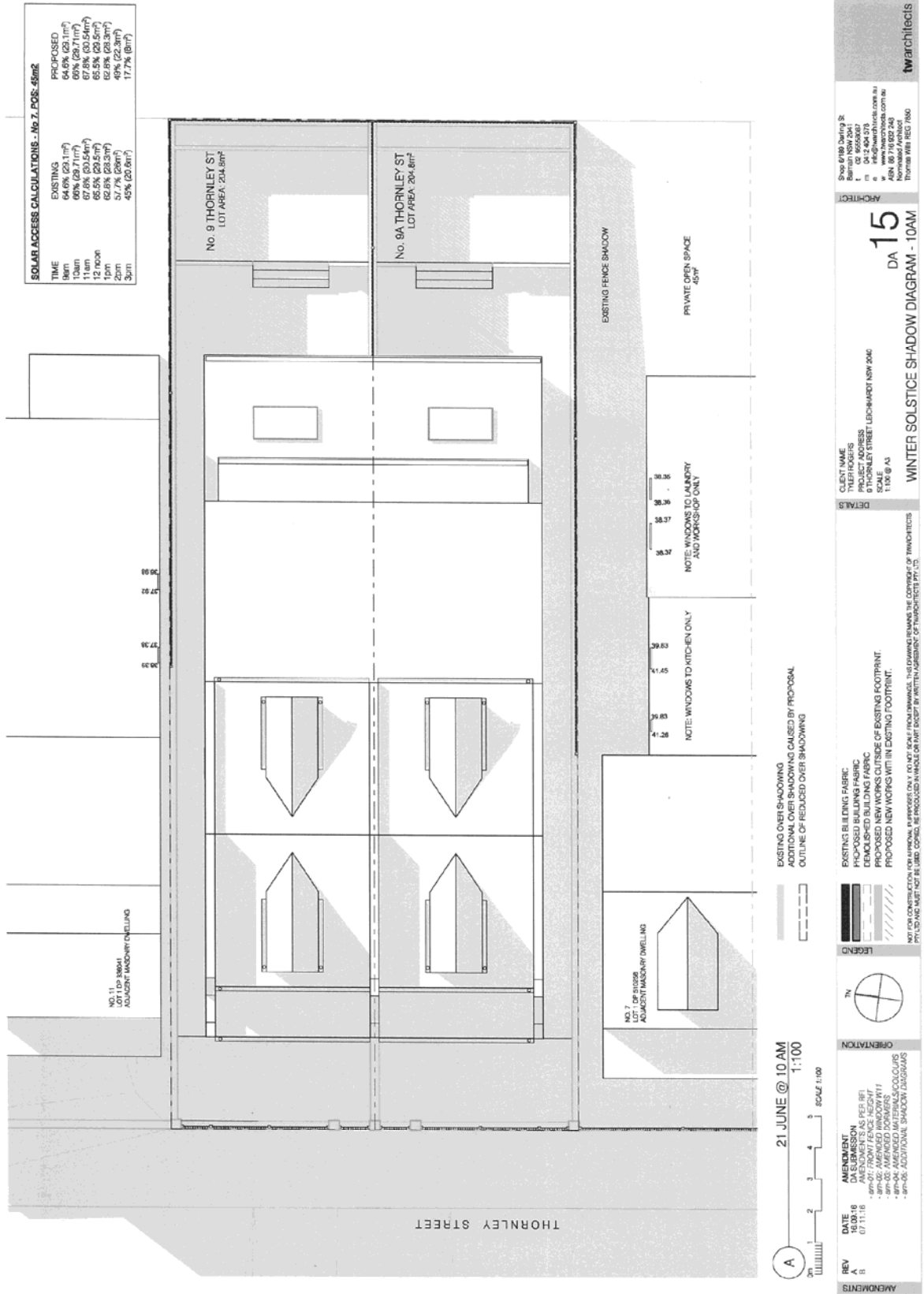
Jack Williamson Design
landscape architecture - horticulture - bushland restoration
0417724242 - info@jwilliamsondesign.com.au

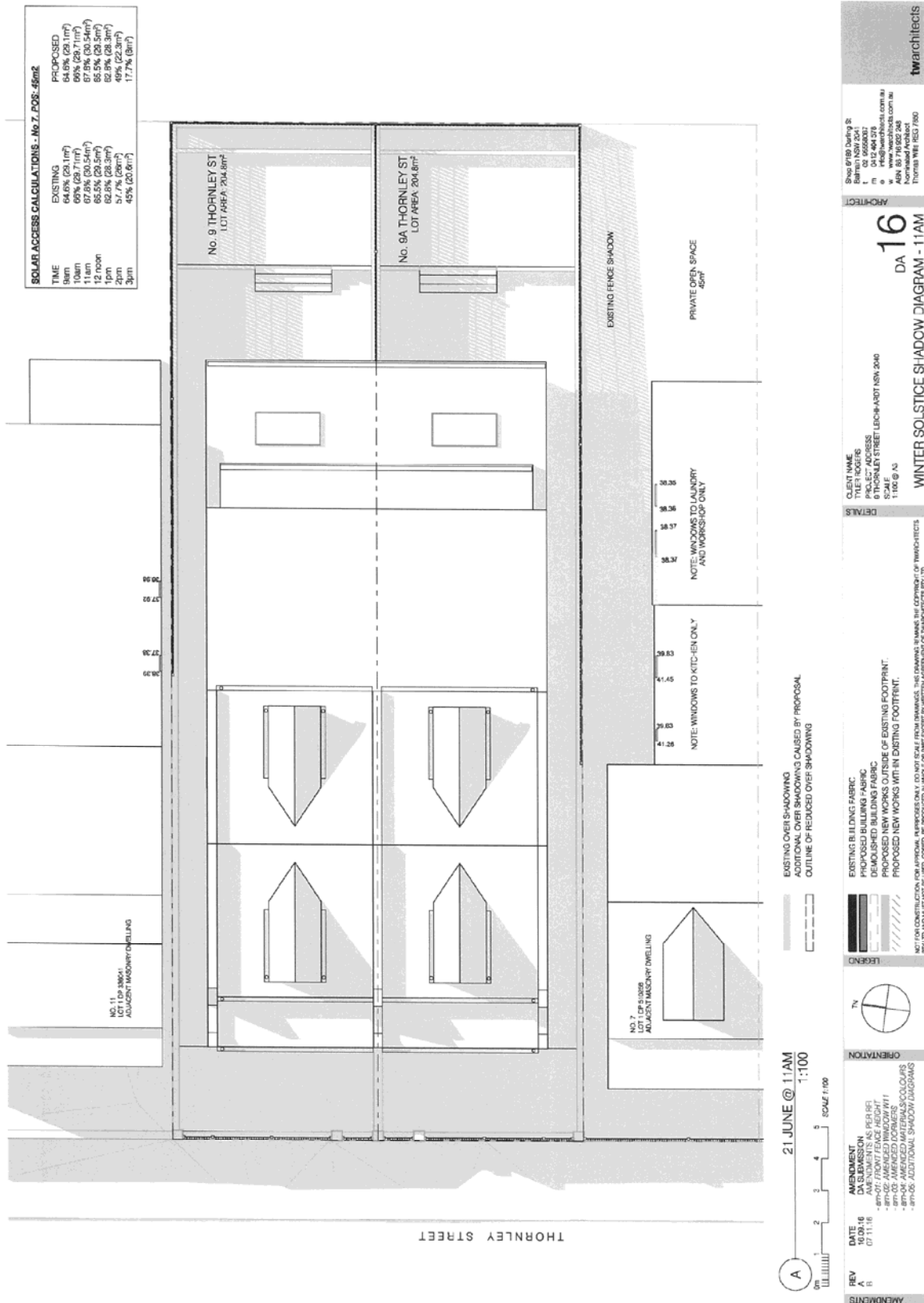


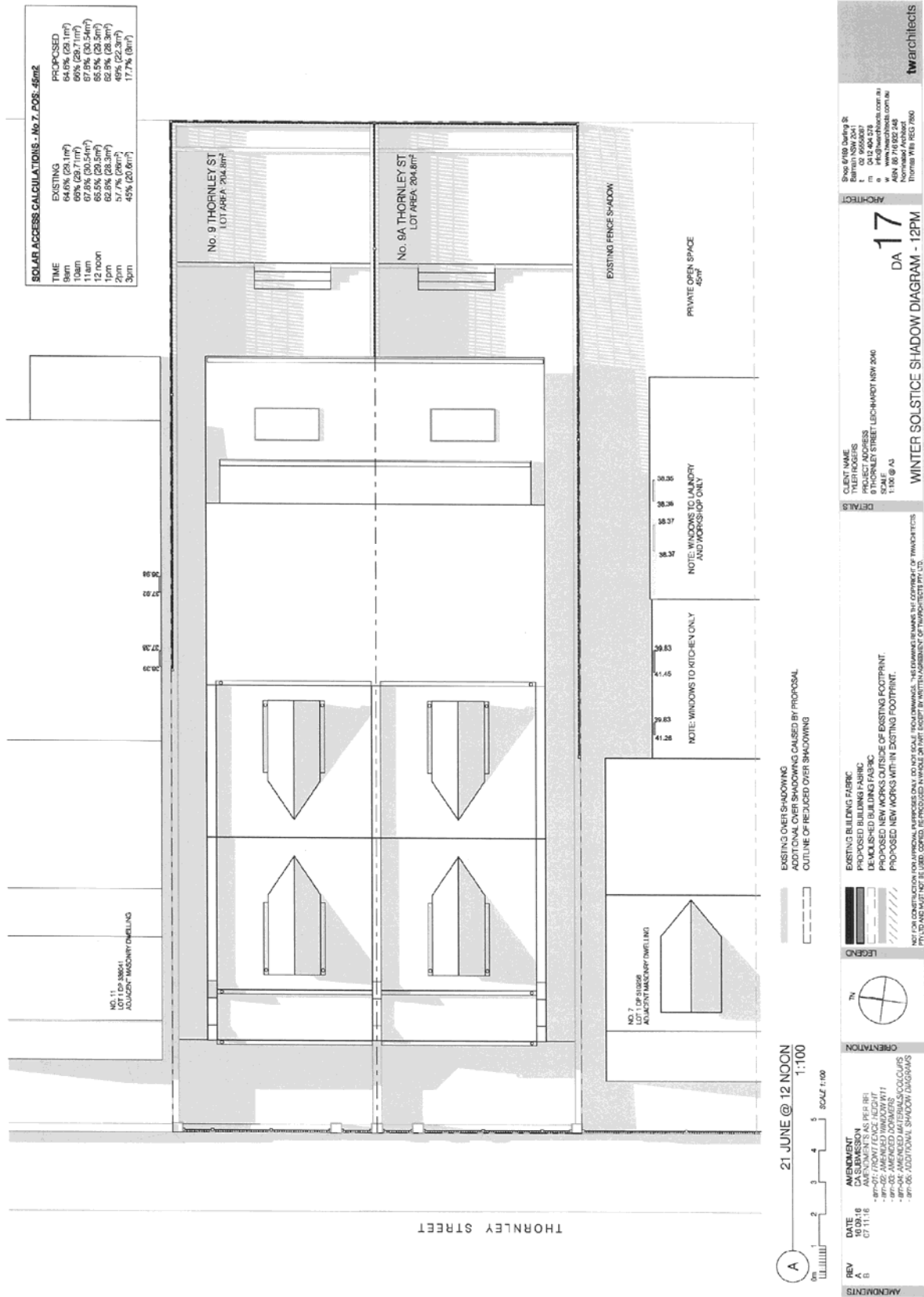


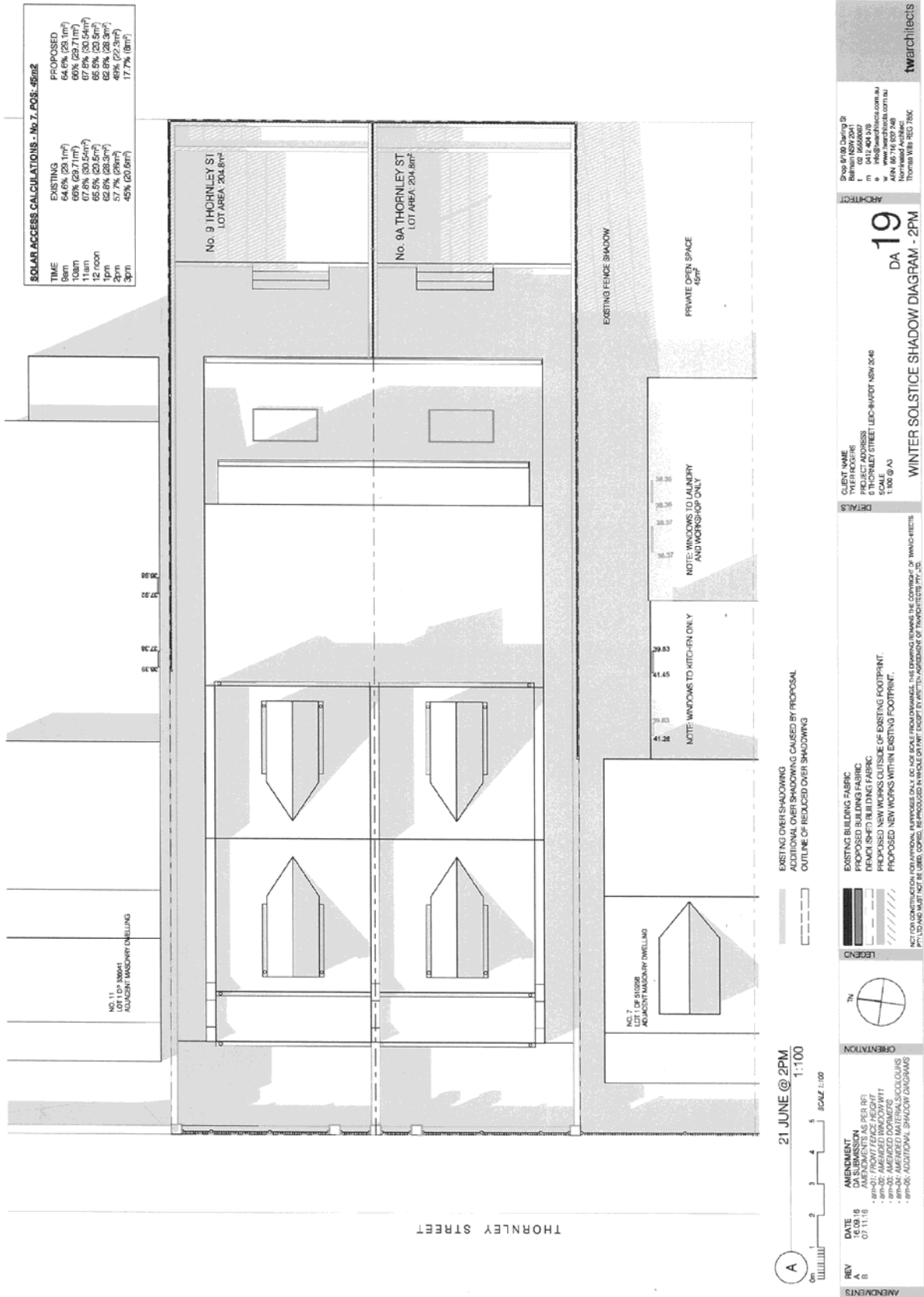


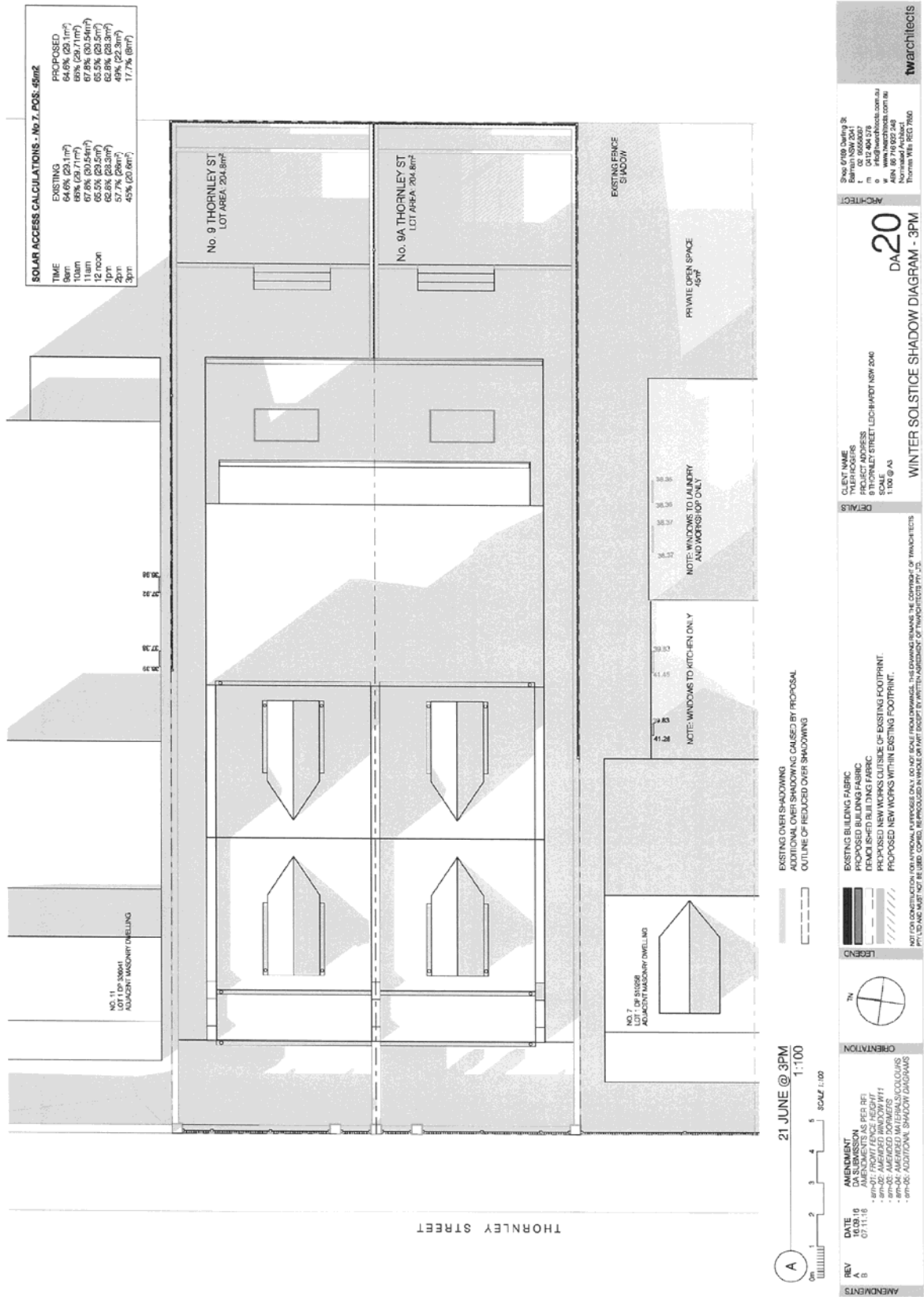


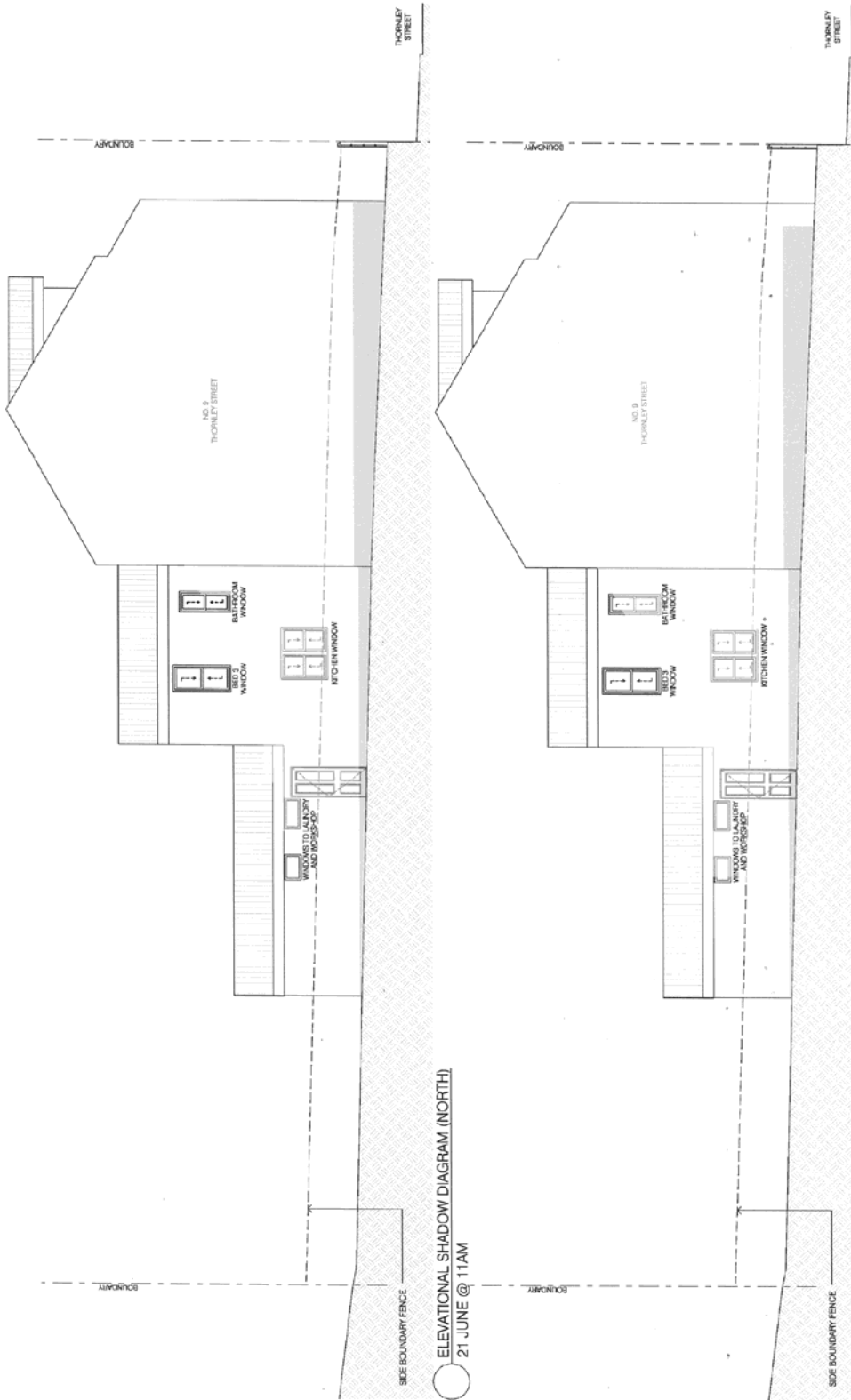












ELEVATIONAL SHADOW DIAGRAM (NORTH)
21 JUNE @ 11AM

ELEVATIONAL SHADOW DIAGRAM (NORTH)
21 JUNE @ 12 NOON

EXISTING OVER SHADOWING
ADDITIONAL OVER SHADOWING CAUSED BY PROPOSED
OUTLINE OF REDUCED OVER SHADOWING

EXISTING BUILDING FABRIC
PROPOSED BUILDING FABRIC
DEVELOPED BUILDING FABRIC
EXISTING BUILDING FABRIC WITH SHADING
PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT
PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT

LEGEND

ORIENTATION

AMENDMENTS

DATE
08/16
07/11/16

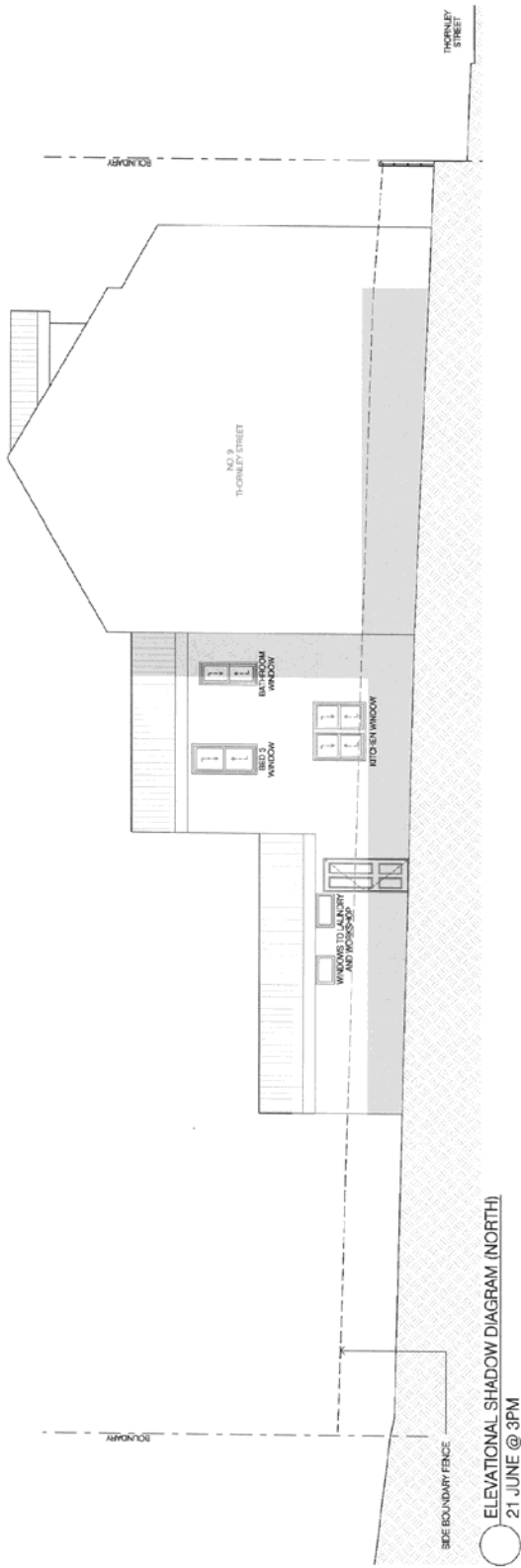
REV
01

AMENDMENTS
- BF-01: FRONT FENCE HEIGHT
- BF-02: AMENDED MATERIALS
- BF-03: AMENDED MATERIALS
- BF-04: AMENDED MATERIALS
- BF-05: ADDITIONAL SHADOW DIAGRAMS

CLIENT NAME
THORNLEY STREET
PROJECT ADDRESS
9 THORNLEY STREET LEICH HART NSW 2060
3100 @ A3

ARCHITECT
DA 22
ELEVATIONAL SHADOW DIAGRAMS

twarchitects
Thomas Will RD3 7560



ELEVATIONAL SHADOW DIAGRAM (NORTH)
21 JUNE @ 3PM

<p>REV A DATE 18.09.16 07:11:16</p>		<p>AMENDMENT DALS BRASSERON - IMP-01: FRONT FENCE HEIGHT - IMP-02: AMENDED WINDOW W/1 - IMP-03: AMENDED MATERIALS/COLORS - IMP-05: ADDITIONAL SHADOW DIAGRAMS</p>		<p>ORIENTATION TN</p>		<p>LEGEND [Solid Grey] EXISTING OVER SHADOWING [Dashed Grey] ADDITIONAL OVER SHADOWING CAUSED BY PROPOSAL [White] OUTLINE OF REDUCED OVER SHADOWING</p>		<p>NOT FOR CONSTRUCTION FOR APPROVAL. ALL DIMENSIONS SHALL BE MET SCALE FROM DIMENSIONS. THE DRAWING REMAINS THE COPYRIGHT OF TWP ARCHITECTS PTY LTD AND MUST NOT BE REPRODUCED, REPRODUCED IN WHOLE OR IN PART, OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN AGREEMENT OF TWP ARCHITECTS PTY LTD.</p>	
<p>CLIENT NAME TYLER ROGERS 17/18 THORNLEY STREET LEICHMORDE NSW 2040 SCALE 1:100 @ A3</p>		<p>EXISTING BUILDING FABRIC PROPOSED BUILDING FABRIC DEMOLISHED BUILDING FABRIC PROPOSED NEW WORKS OUTSIDE OF EXISTING FOOTPRINT PROPOSED NEW WORKS WITHIN EXISTING FOOTPRINT</p>		<p>DA 24</p>		<p>DETAILS</p>		<p>ARCHITECT twp architects Shop 07/18 Darling St Barracks NSW 2041 Phone: 02 944 5278 0 9444666666 info@twparchitects.com.au www.twparchitects.com.au Astr 88 716 922 248 Normal Fax 02 944 5278 Normal Fax 02 944 5278</p>	
<p>NO. 9 THORNLEY STREET</p>		<p>BOUNDARY</p>		<p>BOUNDARY</p>		<p>THORNLEY STREET</p>		<p>THORNLEY STREET</p>	