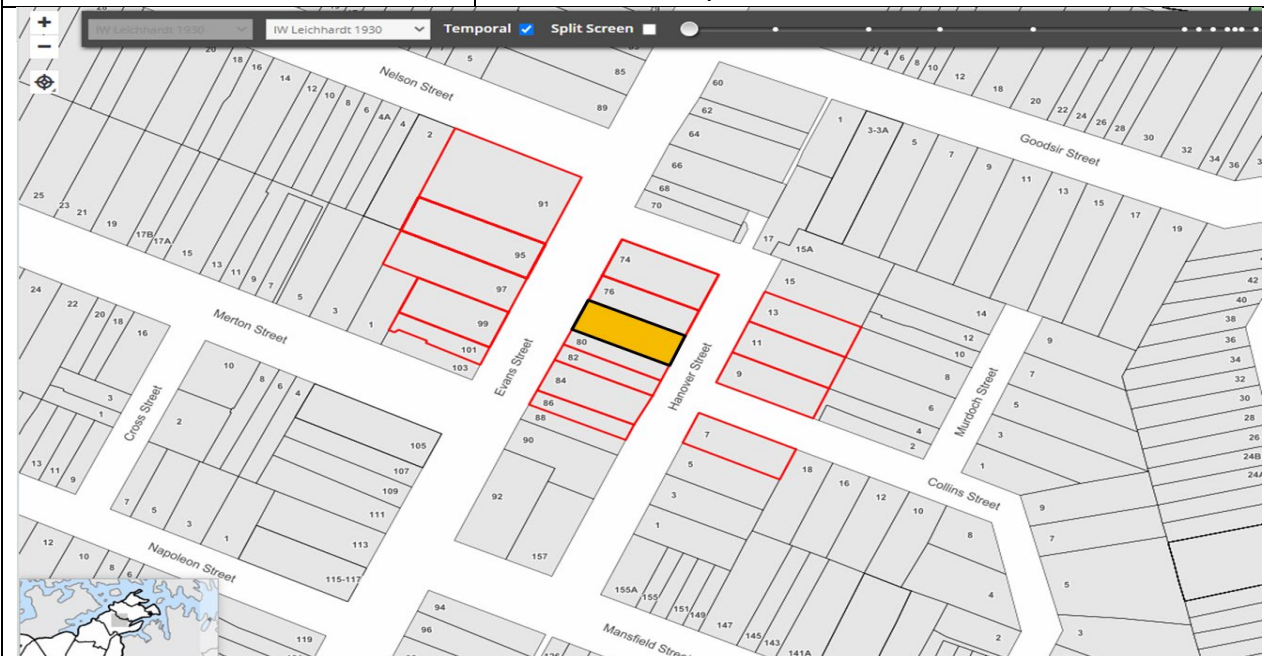




## DEVELOPMENT ASSESSMENT REPORT

<b>Application No.</b>	DA/2022/0131
<b>Address</b>	78 Evans Street ROZELLE NSW 2039
<b>Proposal</b>	Lower ground, ground and first floor alterations and additions to existing dwelling and associated works, including demolition of rear parking structure and replacement with open parking space
<b>Date of Lodgement</b>	28 February 2022
<b>Applicant</b>	Mr Raymond Panetta
<b>Owner</b>	Mr Andrew P Jouana Mrs Rebecca Jouana
<b>Number of Submissions</b>	Nil
<b>Value of works</b>	\$300,000.00
<b>Reason for determination at Planning Panel</b>	Clause 4.6 variation exceeds 10%
<b>Main Issues</b>	Clause 4.6 to FSR variation exceedance
<b>Recommendation</b>	Approved with Conditions
<b>Attachment A</b>	Recommended conditions of consent
<b>Attachment B</b>	Plans of proposed development
<b>Attachment C</b>	Clause 4.6 Exception to Development Standards
<b>Attachment D</b>	Arboricultural Impact Assessment Report
<b>Attachment E</b>	Geotechnical Report



## LOCALITY MAP

<b>Subject Site</b>		<b>Objectors</b>		
<b>Notified Area</b>		<b>Supporters</b>		

## 1. Executive Summary

This report is an assessment of the application submitted to Council for lower ground, ground and first floor alterations and additions to existing dwelling and associated works, including demolition of rear parking structure and replacement with open parking space at 78 Evans Street Rozelle.

The application was notified to surrounding properties and no submissions were received in response to the initial notification.

The main issues that have arisen from the application includes overshadowing and visual privacy impacts. Further, the proposal exceeds the prescribed standards under the following clauses of the Leichhardt Local Environmental Plan (LEP) 2013.

- Clause 4.3A (3) (b) – Landscaped Areas for Residential Accommodation in Zone R1 - Site Coverage with a proposed variance of 6.57%
- Clause 4.4 – Floor Space Ratio (FSR), with a proposed variance of 19.67%

These matters and non-compliances are acceptable given the acceptable streetscape and on-site and off-site amenity outcomes, as will be discussed throughout this report, and therefore the application is recommended for approval.

## 2. Proposal

Generally, the proposed development seeks consent for the following works:

### Demolition

- Excavation to allow for a rumpus room with storage on the lower ground floor level.
- Partial demolition of the existing subfloor or lower ground floor area including external walls and external laundry.
- Complete demolition of the existing carport located at the rear of the subject site.
- Removal of the existing pavers at the rear of the subject site.
- Demolition of some internal walls and external walls at the rear of the dwelling on the ground floor.
- Removal of the existing cantilevered terrace/deck area including access stairs on the ground level.
- Demolition of the first-floor balcony outside Bed 1 overlooking the rear of the subject site.
- Removal of the vanity bench, bath and shower in the ensuite in Bed 1.
- Partial demolition of the dwelling's roof located at the rear.



- Removal of a mature China Doll/Serpent Tree located at the rear (north-eastern corner) of the subject site identified as T1 in the submitted Arboricultural Impact Assessment Report.

#### Construction

- Construction of a rumpus room on the lower ground floor.
- Landscaping works at the rear of the subject site including landscaping of the car space area.
- Conversion of the existing study area on the ground floor to a separate bath and laundry.
- Construction of an access stairs on the northern wall of the existing dwelling.
- Construction of a combined dining/kitchen area leading to an outdoor deck area with access stairs to the lower ground floor.
- Re-build the first-floor balcony at the rear, outside Bed 1.
- Reconfiguration of the first floor which decreases the footprint of the existing Bed 1 and existing ensuite to allow for an additional Bed 4/Study with an ensuite.
- Construction of a second ensuite bathroom located in the smaller Bed 1 on the first-floor.

Figures 1 to 5 below are of existing conditions at the subject site.

Figure 1: view of the rear of the dwelling at the subject site looking up and from the rear yard. Source: site inspection 18.05.2022.





Figure 2: view to the rear yard looking from the existing cantilvered deck. Source: site inspection 18.05.2022.



Figure 3: aspect of the rear yard with the carport on the right of the image. On the left of the image is the China Doll/Serpent tree that will be removed. Source: site inspection 18.05.2022





Figure 4: the existing carport which will be demolished. The floor level of the carport is indicative of the depth of excavation at the subject site to allow for the proposed rumpus and landscaped area. Source: site inspection 18.05.2022.



Figure 5: subfloor area at the lower ground floor. This area is proposed to be demolished to allow for the construction of the rumpus room. Source: site inspection, 18.05.2022.





### 3. Site Description

The subject site is 78 Evans Street, Rozelle NSW 2039 and is legally known as Lot 1 in DP745635. The subject site is on a west to east (front to rear) orientation on the eastern side of Evans Street which has rear access via Hanover Street which is perpendicular to Collins Street. The block on which 78 Evans Street is located is between Hanover Street to the north and Mansfield Street to the south. Please see Figure 6. The subject site has an area of 219.2sqm.

The site presently accommodates a detached dwelling-house which presents to Evans Street as a single-storey brick building with pitched roof comprising gablet style dormer insertion in the front roof plane and is characterised by a bullnose roofed front verandah. Please see Figure 7. The dwelling-house is two storeys at the rear comprising skillion and gable roof forms with elevated ground and first floor rear balconies. As seen in Figure 3 above, there is a mature China Doll/Serpent tree located at the rear of the subject site which abuts the boundary of 76 Evans Street.

The subject property at 78 Evans Street, Rozelle, is a contributory dwelling located within The Valley Heritage Conservation Area (C7 in Schedule 5 of the *Leichhardt LEP 2013*). It is within proximity of heritage listed terraces at 101 and 103 Evans Street, Rozelle (I762 and I763). Generally, this section of Evans Street has a mix of single and two dwellings and terraces, some detached and some attached.

Figure 6: the subject site is indicated by the red border and red arrow. Source: NSW Planning Portal Spatial E-Viewer, 17.05.2022.



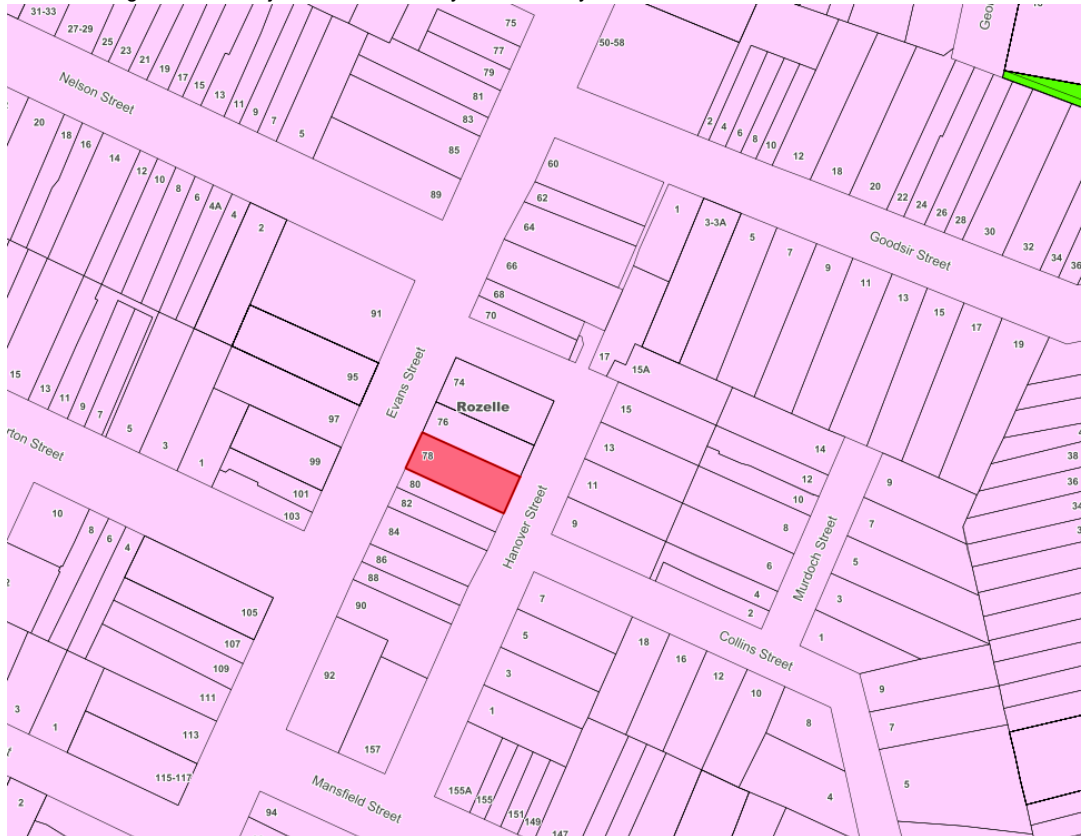


Figure 7: front aspect of the dwelling at the subject site. Source: site inspection 18.05.2022.



The subject site is zoned R1 General Residential by the *Leichhardt LEP 2013*. See Figure 8. The subject site is not identified as contaminated land. The site is not in a flood planning area.

Figure 8: the subject site indicated by the dashed yellow line is zoned R1 General Residential



## 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
D/2000/624	Alterations and additions to the existing single storey dwelling including the construction of a new first floor.	Refused 06/12/2000
D/2001/472	First floor addition to the existing dwelling.	Approved 20/02/2002
CC/2006/118	Construction Certificate – First floor addition to the existing dwelling	Approved 26/04/2006
M/2006/625	Section 96 (1a) modification to D/2001/472. Modifications include extending the depth of the extension, altering the size of the rear balcony, providing eaves overhangs to the gable roof and deleting a north facing window	Approved 12/12/2006
PCT/2020/2646	Planning Certificate	Issued 03/08/2020

Application	Proposal	Decision & Date
PDA/2021/0479	Lower ground, ground and first floor alterations and additions to existing dwelling-house, and associated works, including demolition of existing carport and retain carspace at rear accessed via Hanover Street	Issued 23/12/2021
DA/2022/0131	Lower ground, ground and first floor alterations and additions to existing dwelling and associated works, including demolition of rear parking structure and replacement with open parking space	The subject of this assessment report

### Surrounding properties

Not applicable

### 4(b) Application history

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

Date	Discussion / Letter / Additional Information
18.05.2022	Site inspection undertaken on 18.05.2022 at the allotted time.

## 5. Assessment

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

### 5(a) Environmental Planning Instruments

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

- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*

The following provides further discussion of the relevant issues:

#### 5(a)(i) *State Environmental Planning Policy (Resilience and Hazards) 2021*

### Chapter 4 Remediation of land

Section 4.16 (1) of the SEPP requires the consent authority not to grant consent to the carrying out of any development on land unless:

- (a) *it has considered whether the land is contaminated, and*

- (b) *if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

The site has not been used in the past for activities which could have potentially contaminated the site. The land will be suitable for the proposed use as there is no indication of contamination.

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

A BASIX Certificate, certificate number A445395, dated 22 February 2022 was submitted with the application and will be referenced in any consent granted.

**5(a)(iii)     *State Environmental Planning Policy (Biodiversity and Conservation) 2021***

**Chapter 2 Vegetation in non-rural areas**

The protection/removal of vegetation identified under the SEPP and gives effect to the local tree preservation provisions of Council's DCP.

The application seeks the removal of a China Doll/Serpent Tree.

The application was referred to Council's Tree Management Officer whose comments are summarised as follows:

- A site inspection was undertaken as part of pre-DA, PDA/2021/0479.
- A replacement tree will be imposed as condition of consent in a more suitable location.
- Protruding into property No 78 Evans St and originating from 76 Evans St, is a small section of an enlarged woody stem – Dracena/Yucca like species. It is anticipated a small retaining wall be required given the proposed excavation. Slight modifications to the proposal may be required as damage to vegetation on adjacent sites cannot be supported.

Overall, the proposal is considered acceptable with regard to the SEPP and Leichhardt Tree Management DCP subject to the imposition of conditions requiring replacement planting and adequate tree protection measures.

5(a)(iv) *Leichhardt Local Environmental Plan 2013*

*Leichhardt Local Environment Plan 2013 (Leichhardt LEP 2013)*

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

- Clause 1.2 - Aims of the Plan
- Clause 2.3 - Zone objectives and Land Use Table
- Clause 2.7 - Demolition
- Clause 4.3A - Landscaped areas for Residential Accommodation 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 5.10 - Heritage Conservation
- Clause 6.2 - Earthworks
- Clause 6.4 - Stormwater Management

(i) Clause 1.2 – Aims of the Plan

The development as proposed and as conditioned will result in acceptable streetscape for both Evans Street and Hanover Street and amenity impacts and will be a satisfactory response to the existing pattern of development on the street and of the service lane.

(ii) Clause 2.3 - Land Use Table and Zone Objectives

The subject site is zoned R1 General Residential under the *Leichhardt LEP 2013*. The proposed works are to a dwelling house which means a building containing only one dwelling. The proposed works are to a dwelling house and associated works which are permissible developments with consent on land zoned R1 General Residential under the *Leichhardt LEP 2013*.

The objectives of the Zone R1 General Objectives are as follows:

- To provide for the housing needs of the community.
- To provide for a variety of housing types and densities.



- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To improve opportunities to work from home.
- To provide housing that is compatible with the character, style, orientation and pattern of surrounding buildings, streetscapes, works and landscaped areas.
- To provide landscaped areas for the use and enjoyment of existing and future residents.
- To ensure that subdivision creates lots of regular shapes that are complementary to, and compatible with, the character, style, orientation and pattern of the surrounding area.
- To protect and enhance the amenity of existing and future residents and the neighbourhood.

The proposal will continue to provide for a variety of housing types and for the housing needs of the community within a low-density residential environment. Further, the proposal is an acceptable streetscape response to both Evans Street at the front and Hanover Street at the rear, and subject to conditions, will result in no undue adverse amenity impacts on adjoining properties. Further, while the proposed development includes variations to the standards prescribed under the LEP, these variations result in improved amenities at the subject site, improved Landscaped Area and reduced Site Coverage.

Overall, the proposed development, as conditioned, will result in acceptable impacts on adjoining properties, and as discussed in other sections of this report, and the locality in general.

(iii) Clause 2.7 – Demolition

The proposed development includes a partial demolition of sections of the existing dwelling, including some internal walls, the cantilevered deck area on the ground floor, the balcony off Bed 1 on the first floor. It also includes the demolition of the rear outdoor laundry located on the lower ground floor.

The proposed demolition will not detract from the heritage elements of the contributory building of the Heritage Conservation Area. The proposed demolition will maintain the existing footprint of the existing dwelling.

The proposed development was assessed by Council's Heritage Officers, and no objections were raised with regard to the proposed development including the partial demolition for reasons cited previously.

(iv) Clauses 4.3A and 4.4 - Development Standards

The following table outlines an assessment of the proposal against the relevant development standards under Clauses 4.3A and 4.4 of the *Leichhardt LEP 2013*:

Standard	Proposal	Non- compliance	Complies
<b>Landscape Area</b> Minimum permissible: 15% (32.88sqm)	17.31% (37.95sqm)	N/A	Yes
<b>Site Coverage</b> Maximum permissible: 60% (131.52sqm)	63.94% (140.16sqm)	6.57% (8.64sqm)	No
<b>Floor Space Ratio</b> Maximum permissible: 0.8:1 (175.36sqm)	0.96:1 (209.858sqm)	19.67% (34.498sqm)	No

(v) Clause 4.6 Exceptions to Development Standards

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

- Clause 4.3A (3) (b) – Landscaped Areas for Residential Accommodation in Zone R1 – Site Coverage
- Clause 4.4 (2B) (a) (iii) – Floor Space Ratio

The applicant seeks a variation to these development standards under Clause 4.6 Exceptions to Development Standards of the Leichhardt Local Environment Plan 2013. Clause 4.6 allows Council to vary development standards in certain circumstances and provides an appropriate degree of flexibility to achieve better design outcomes.

Clause 4.3A (3) (b) – Site Coverage

As outlined previously in this report, the proposal results in a breach of Clause 4.3A (3) (b).

In order to demonstrate whether strict numeric compliance is unreasonable or unnecessary in this instance, the proposed exception to the development standard has been assessed against the objectives and provisions of Clause 4.6 of the *Leichhardt LEP 2013* below.

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.*

Comment:

Whilst the proposal exceeds the Site Coverage development standard, it results in improved on-site amenity outcomes, with no undue adverse amenity impacts for neighbours, and will be respectful of the existing pattern of development in the street, including the frontage at Evans Street, and rear access via Hanover Street.

Additionally, the non-compliance is a marked improvement of the existing Site Coverage of 76.89% (168.55sqm) which is a non-compliance of 28.16%. The proposed development results in a non-compliance of 6.57% or 63.94% (14.16sqm) Site Coverage. Therefore, while the proposed development results in a non-compliance, this however results in a reduced site coverage. In this instance, it is considered that strict compliance with this development standard is unreasonable and that the proposed development can be supported in this instance. Refer to discussion below for further details.

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:

As previously mentioned, the non-compliance results in improved (through a reduction in) Site Coverage at the subject site. The proposed development will decrease the existing site coverage at the subject site by 28.39sqm. This reduction in Site Coverage will result in an improved and compliant Landscaped Area at the subject site, where no Landscaped Area is currently existing. Additionally, the non-compliance is minimal at 6.57% or 8.64sqm. In consideration of these matters, the proposal is acceptable with respect to this objective of the clause.

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:

A written request under clause 4.6 of the *Leichhardt LEP 2013* has been submitted by the applicant. Their submission which justifies the contravention of this standard is as follows:

*The existing site coverage (77%) has exceeded the allowable maximum 60%. The aim of this proposal is to create a more habitable and integrated living space for a growing family. The existing layout has a small living, kitchen and dining area, with a detached laundry below ground floor separated by an outdoor deck.*

*The proposal aims to reduce the existing terrace deck BLZ and increase the landscaped area. This approach reduces the building footprint by 26.2 sqm and results in 65% site coverage. The reduction in site coverage will create a significant improvement in the internal quality of the space. The proposal, at the same time, will increase the landscape area in the rear courtyard, achieving the minimum required landscaped area under the LEP.*

*In designing a development that compares to the neighbouring properties, the quality of the site and the immediate surroundings is considered acceptable to meet the objectives of the LEP.*

*The existing site coverage of surrounding buildings and the proposal is in keeping with the area.*

*In designing a development that compares to the neighbouring buildings, the quality of the site, and the immediate surroundings is improved.*

*The proposal carefully considers all aspects of the LEP & DCP and the design solution will fit comfortably within its surroundings.*

*The proposal has been designed to preserve the character of the surrounding area. Amenity to the site will not be compromised.*

*Compliance with the standard is unreasonable as the existing site coverage has already exceeded the allowable maximum 60% site coverage.*

*The proposed site coverage is in keeping with the surrounding area. A majority of the existing site coverage at the rear of the property derives from the existing terrace deck. The proposal aims to reduce the existing deck BLZ and increase the landscaped area, which results in reduction in building bulk and scale.*

*It is unreasonable to comply with the standard as this would require further reducing the proposal to site coverage smaller than the existing site coverage as well as the average in the area.*

Overall, the proposed non-compliance is acceptable in this instance as the Site Coverage is decreased, and thus, is improved from the existing site condition. It does not result in any uncharacteristic scale, bulk or density and compliance with the standard would require the removal of existing fabric.

Overall, in this instance, compliance with the development standard in this instance would unnecessarily impact the amenity of residents with no discernible planning benefit.

(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 applicant's written rationale adequately demonstrates compliance with the development standard is unnecessary in the circumstances of the case, and that there are sufficient environmental planning grounds to justify contravening the development standard in this instance.

It is considered that the proposed development is not contrary to public interest because it is consistent with the objectives of the R1 – General Residential zone, in accordance with Clause 4.6(4)(a)(ii) of the LLEP 2013 for reasons discussed previously in this report, including under Clause 2.3 of the Leichhardt LEP2013.

It is also considered that the development is not contrary to public interest because it is consistent with the objectives of the Site Coverage development standard (the same objectives listed above under the Landscaped Area standard), in accordance with Clause 4.6(4)(a)(ii) of the LLEP 2013. The objectives of the Site Coverage development standard are as follows:

(1) *The objectives of this clause are as follows—*

(a) *to provide landscaped areas that are suitable for substantial tree planting and for the use and enjoyment of residents,*

(b) *to maintain and encourage a landscaped corridor between adjoining properties*

(c) *to ensure that development promotes the desired future character of the neighbourhood,*



- (d) to encourage ecologically sustainable development by maximising the retention and absorption of surface drainage water on site and by minimising obstruction to the underground flow of water,*
- (e) to control site density,*
- (f) to limit building footprints to ensure that adequate provision is made for landscaped areas and private open space*

The proposal is consistent with the objectives of the Site Coverage development standard for the following reasons:

- The development does not seek further breaches of Site Coverage development standard;
- The development is compatible with the desired future character of the area in relation to building bulk, form and scale;
- The proposal is compatible with the character, style, orientation and pattern of surrounding buildings, streetscapes, works and Landscaped areas;
- The proposal enhances the amenity of existing residents and subject to conditions does not result in any undue adverse impacts on adjoining properties and the neighbourhood.

The level of non-compliance to the Site Coverage standard is not increasing and does not exceed the assumed concurrence issued by the Secretary 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*

Comment:

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 enforcement of the development standard.

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

Comment:

The breach is an improvement from the existing Site Coverage breach and is minimal. Therefore, the concurrence of the Secretary is assumed in this instance.

Based upon the above considerations, pursuant to Clause 4.6, of the *Leichhardt Local Environmental Plan 2013*, submission for variation of Clause 4.3A (3) (b) Site Coverage is acceptable and supported in this instance

Clause 4.4 (2B) (a) (iii) – Floor Space Ratio

As outlined previously in this report, the proposal results in a further breach to the allowable FSR of 0.8:1 (175.36sqm), and the applicant seeks a variation to Clause 4.4 (2B) (a) (iii).

In order to demonstrate whether strict numeric compliance is unreasonable or unnecessary in this instance, the proposed exception to the development standard has been assessed against the objectives and provisions of Clause 4.6 of the *Leichhardt LEP 2013* below.

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.*

Comment:

The existing dwelling at the subject site currently has an FSR of 0.83:1 (181.99sqm). The proposed development will result in a further breach of the FSR provision by an increased 19.67% (34.498sqm). The proposed FSR is 0.96:1 or 209.858sqm.

The proposed variation is mainly the result of utilising and improving the use of the existing and redundant sub-floor area located on the lower ground floor. This area is proposed to contain a rumpus with a powder room and a storage area. The proposed rumpus on the lower ground floor is not visible from the public domain and will result in improved on-site amenity outcomes with no undue adverse amenity impacts for neighbours, and will be respectful of the existing pattern of development in the street. In this instance, it is considered that strict compliance with this development standard is unreasonable. Refer to discussion below for further details.

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 proposal will result in a non-compliance of the 0.8:1 Floor Space Ratio development standard as prescribed by Clause 4.4 of the *Leichhardt LEP 2013* of 19.67% (34.498sqm). A clause 4.6 Exceptions to Development Standard variation has been submitted and is assessed below.

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:

A written request under clause 4.6 of the *Leichhardt LEP 2013* has been submitted by the applicant to justify the contravention of this standard. Their submission is as follows;

*Compliance with the standard is unreasonable as the existing building has an FSR of 0.85:1 which is over the allowable maximum 0.8:1.*

*The proposed additions have a minimal non-compliance to FSR. The proposed rumpus has a floor area of 35.2 sqm which is the cause for the non-compliance. The proposed rumpus will be located below the deck, and merely replacing the existing sub-floor area below the terrace deck. The proposal has carefully considered the position of the rumpus to create no additional bulk and scale or privacy concerns to the neighbouring properties. The proposal is compliant with landscaped area.*

*Amending the proposal to comply with FSR controls would require deletion of the rumpus. It is unreasonable to comply with the standard as this would require reducing the proposal to an FSR lower than the existing FSR.*

*It should be noted the proposal complies with the objectives of the FSR controls and the inclusion of the rumpus will have no impact and is consistent with objectives of Clause 4.4 of LEP 2013 relating to an FSR of 0.8:1 as the development proposal, with an FSR of 0.99:1, is sympathetic to the surrounding area.*

*FSR is compatible with the adjoining properties & has minimal impact on the amenity of the neighbouring properties, including privacy & solar access. Site coverage and building bulk & scale has been reduced, there is an improvement to neighbour's solar access. Landscaped area has been greatly improved. There will be no impact to the streetscape since the rumpus addition is not visible from the street.*

In this instance, the proposed development and FSR variation is acceptable as it provides for amenity outcomes for the current and future residents of the subject site. There is no undue adverse impact on the adjacent properties or neighbourhood as it maintains a similar bulk and scale as the existing dwelling. The proposal is consistent with the objectives of the desired future character of the area and R1 zone. The proposal also improves the rear elevation of the subject site consistent with the character of Hanover Street and maintains consistency in the neighbourhood via the continuity of the existing built form and density prevalent in the locality.

Overall, the proposed development will increase and comply the landscaped area where currently none exists, and the Site Coverage is markedly improved. Therefore, upon considerations of the above, strict compliance with the code in this instance would be unreasonable and unnecessary.

(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 applicant's written rationale adequately demonstrates compliance with the development standard is unnecessary in the circumstances of the case, and that there are sufficient environmental planning grounds to justify contravening the development standard in this instance.

It is considered that the development is not contrary to public interest because it is consistent with the objectives of the R1 – General Residential zone, in accordance with Clause 4.6(4)(a)(ii) of the LLEP 2013 for reasons discussed previously in this report, including under Clause 2.3 of the *Leichhardt LEP 2013*.

It is also considered that the development is not contrary to public interest because it is consistent with the objectives of the FSR development standard, in accordance with Clause 4.6(4)(a)(ii) of the LLEP 2013. The objectives of the FSR standard are as follows:

- (a) *to ensure that residential accommodation—*
- (i) *is compatible with the desired future character of the area in relation to building bulk, form and scale, and*
  - (ii) *provides a suitable balance between landscaped areas and the built form, and*
  - (iii) *minimises the impact of the bulk and scale of buildings,*
- (b) *to ensure that non-residential development is compatible with the desired future character of the area in relation to building bulk, form and scale.*

The proposal is considered to be consistent with the FSR development standard for the following reasons:

- The non-compliance is due to the rumpus room that will not be highly visible from the public domain, and it does not result in uncharacteristic bulk to the street of both Evans Street and Hanover Street.
- Minimal difference in the impacts between a compliant and non-compliant proposal in terms of visual and acoustic privacy, visual impacts and solar impacts on the immediately adjacent and surrounding neighbourhood as the existing building footprint is retained.
- The proposal enhances the amenity of existing and future residents, and subject to conditions, will not result in any undue adverse amenity impacts on adjoining properties.

The concurrence of the Planning Secretary may be assumed for matters dealt with by the Local Planning Panel.

- (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*

Comment:

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 enforcing the development standard in this instance.



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

Comment:

The proposed FSR does not comply with the standards, however, given the improvement in site coverage and the now compliant Landscaped Area, the proposed development results in better amenity outcomes and the concurrence of the Secretary can be assumed in this instance.

Based upon the above considerations, pursuant to Clause 4.6, of the *Leichhardt Local Environmental Plan 2013*, the proposed variation of the development standard under Clause 4.4 A (3)(b) – Floor Space Ratio for residential development in Zone R1 is acceptable and supported in this instance.

(vi) Clause 5.10 - Heritage Conservation

The subject property at 78 Evans Street, Rozelle, is a contributory dwelling located within The Valley Heritage Conservation Area (C7 in Schedule 5 of the *Leichhardt LEP 2013*). It is also in the vicinity of the heritage listed terraces at 101 and 103 Evans Street, Rozelle (I762 and I763).

The proposed development has been designed to respond to the significance of the HCA and preserve the contributory elements and fabric of the existing building.

Council's Heritage Advisor has reviewed the proposal and raised no objections given the works will not detract from the heritage significance of the HCA, the works are consistent with the objectives and controls of the relevant clauses of *Leichhardt LEP 2013* and *Leichhardt DCP 2013*.

Given the above, the development will be of a form, size, scale, finishes and materials, and design and detail that will be compatible with, and that will not detract from, the existing dwelling-house, adjoining or nearby buildings, nearby environmental heritage or the HCA, and will satisfy the streetscape / heritage provisions of this part of the *Leichhardt LEP 2013* and those contained in the *Leichhardt DCP 2013*.

(vii) Clause 6.2 – Earthworks

The proposed development includes excavation and earthworks to accommodate the proposed rumpus and storage.

The application was accompanied by a Geotechnical Investigation Report which contains a number of recommendations for works during excavation and construction, ensuring the work can be achieved safely.

Overall, the proposed earthworks are consistent with the objectives of this clause.

## (viii) Clause 6.4 - Stormwater Management

The proposed development includes excavation which will alter the topography of the subject site, stormwater management.

The proposal was reviewed by Council's Development Engineer, who provided conditions in relation to stormwater drainage design plans being provided to the Certifying Authority prior to the issue of a Construction Certificate.

As such, subject to recommended conditions, the proposal will comply with the provisions of Clause 6.4 of LLEP 2013.

## 5(b) Draft Environmental Planning Instruments

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

Draft Environmental Planning Instruments	Compliance
Draft State Environmental Planning Policy (Remediation of Land) 2018	Yes
Draft State Environmental Planning Policy (Environment) 2017	Yes
Draft Inner West Leichhardt Environmental Plan 2020	Yes

## 5(d) Development Control Plans

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

LDCP2013	Compliance
<b>Part A: Introductions</b>	
Section 3 – Notification of Applications	Yes
<b>Part B: Connections</b>	
B1.1 Connections – Objectives	Yes
<b>Part C</b>	
C1.0 General Provisions	Yes
C1.1 Site and Context Analysis	Yes
C1.2 Demolition	Yes
C1.3 Alterations and additions	Yes, subject to condition - see discussion below.
C1.4 Heritage Conservation Areas and Heritage Items	Yes - see discussion below.
C1.7 Site Facilities	Yes
C1.8 Contamination	N/A.
C1.9 Safety by Design	Yes

C1.10 Equity of Access and Mobility	N/A
C1.11 Parking	Yes, subject to conditions - see discussion below.
C1.12 Landscaping	Yes
C1.13 Open Space Design Within the Public Domain	N/A
C1.14 Tree Management	Yes, subject to conditions
C1.17 Minor Architectural Details	N/A
C1.18 Laneways	N/A
<b>Part C: Place – Section 2 Urban Character</b>	
The Valley “Rozelle” Distinctive Neighbourhood	Yes
<b>Part C: Place – Section 3 – Residential Provisions</b>	
C3.1 Residential General Provisions	Yes
C3.2 Site Layout and Building Design	No but acceptable - see discussion below.
C3.3 Elevation and Materials	Yes
C3.4 Dormer Windows	N/A
C3.5 Front Gardens and Dwelling Entries	N/A
C3.6 Fences	N/A
C3.7 Environmental Performance	Yes
C3.8 Private Open Space	Yes
C3.9 Solar Access	Yes, see discussion below.
C3.10 Views	Yes
C3.11 Visual Privacy	Yes, subject to conditions - see discussion below.
C3.12 Acoustic Privacy	Yes
<b>Part D: Energy</b>	
Section 1 – Energy Management	Yes
Section 2 – Resource Recovery and Waste Management	
D2.1 General Requirements	Yes
D2.2 Demolition and Construction of All Development	Yes
D2.3 Residential Development	Yes
<b>Part E: Water</b>	
Section 1 – Sustainable Water and Risk Management	
E1.1 Approvals Process and Reports Required With Development Applications	Yes
E1.1.1 Water Management Statement	Yes
E1.1.2 Integrated Water Cycle Plan	N/A
E1.1.3 Stormwater Drainage Concept Plan	Yes
E1.1.4 Flood Risk Management Report	N/A

E1.1.5 Foreshore Risk Management Report	N/A
E1.2 Water Management	Yes
E1.2.1 Water Conservation	Yes
E1.2.2 Managing Stormwater within the Site	Yes
E1.2.3 On-Site Detention of Stormwater	N/A
E1.2.4 Stormwater Treatment	N/A
E1.2.5 Water Disposal	Yes
E1.2.6 Building in the vicinity of a Public Drainage System	N/A
E1.2.7 Wastewater Management	N/A
E1.3 Hazard Management	N/A
E1.3.1 Flood Risk Management	N/A
E1.3.2 Foreshore Risk Management	N/A

### **C1.3 – Alterations and additions**

#### *Streetscape*

The additions are sited at the rear, behind the contributory front dwelling form comprising a gabled roof which is to be retained. The proposed works will be sited in a location where it can be reasonably expected that development be carried out in response to streetscape / heritage controls and the building typology statements of the Leichhardt DCP 2013. Further, the proposed rumpus room at the lower ground floor is not visible from the public domain. The proposed works to the ground floor and first-floor at the rear of the site will be contained within a low and complementary gabled roof form. These works are largely contained within the existing footprint of the existing dwelling. The proposed works are not visible from Evans Street.

As for the characteristics of development at the rear of the subject site, at Hanover Street, the proposed development is consistent with the existing development pattern found therein.

The proposed development will maintain the bulk and scale of developments on this street and the proposed rumpus room is not visible from the public domain.

Overall, the alterations will complement the scale, form and materials of the existing dwelling and the streetscape and neighbourhood character and will appear as a sympathetic addition to the existing building.

### **C1.4 – Heritage Conservation Areas and Heritage Items**

The subject property at 78 Evans Street, Rozelle, is a contributory dwelling located within The Valley Heritage Conservation Area (C7 in Schedule 5 of the Leichhardt LEP 2013). It is also in the vicinity of the heritage listed terraces at 101 and 103 Evans Street, Rozelle (I762 and I763).

The Statement of Significance for The Valley Heritage Conservation Area is in the Leichhardt DCP 2013, which is available via the link below:

<https://www.innerwest.nsw.gov.au/develop/planning-controls/heritage-andconservation/heritage-conservation-areas>

It is considered the development has been designed to respond to the significance of the conservation area and preserve the contributory elements and fabric of the existing building. Council's Heritage Advisor has reviewed the proposal and raised no objections as the proposed works are able to maintain the heritage elements of the contributory building within the HCA, the works are not visible from the public domain of Evans Street thereby satisfying C1.4 of LDCP 2013

### **C1.11 – Parking**

The subject site currently has one off-street parking located at the rear of the site, accessed via Hanover Street. While the carport is proposed to be demolished as part of this development and the car space area is proposed to be covered in turf (noting that the parking space is recommended to be conditioned to provide for an all-weather surface (i.e. the turf to the car space shall be deleted); the intended use of this area is to maintain the existing off-street parking at the subject site.

It is noted, the car space area is excluded from the calculation of landscaped area. Despite this, the Landscaped Area complies at 17% which is noted previously in this report. Thus, in this instance this proposal is acceptable.

Overall, proposed on-site parking provision is not contrary to the objectives and controls of this section of the DCP.

### **C3.2 – Site Layout and Building Design**

#### **Building Location Zone**

The proposed lower ground floor additions and works will alter the BLZ on this level as it pushes out the rear setback established by the adjoining properties at 78A Evans Street (north of the subject site) and 80 Evans Street (south of the subject site). The proposed works to the ground floor and first floor will not alter the existing BLZ as established by the existing dwelling and adjacent properties.

Pursuant to Control C6 of this section of the DCP, to gain support for the proposed lower ground floor BLZ, various requirements need to be met. An assessment of the proposal against these tests is carried out below.

- *The proposed building is consistent with the pattern of development in the immediate locality.*

Comment:

The proposed lower ground floor is not inconsistent with development in this section of Evans Street. The proposed lower ground floor is a sympathetic addition to the existing dwelling and is not visible from the public domain. As such, the proposed lower ground floor is not inconsistent with the pattern of development.

- *Amenity to adjacent properties (i.e. sunlight, privacy, views) is protected and compliance with the solar access controls is achieved.*

Comment:

As will be discussed in detail later in this report, the proposed development will have very minimal and acceptable impacts with regard to solar access, and subject to appropriate privacy mitigation measures, visual privacy controls. Additionally, there is no view loss that will be impacted by the proposed development.

Overall, the proposed development is acceptable in this regard.

- *The proposed development will be compatible with the existing streetscape, desired future character and scale of surrounding development.*

Comment:

As noted previously, the proposed additions and alterations will be respectful of the desired future character of the streetscape of Evans Street and Hanover Street and will be compatible with the scale of other developments within the neighbourhood.

- *The proposal is compatible in terms of size, dimensions privacy and solar access of private open space, outdoor recreation and landscaping.*

Comment:

The proposed lower ground floor BLZ is acceptable as it is not out of character with neighbouring development and will provide for an improved and compliant Landscaped Area and private open space which will be compatible in terms of size, dimensions to that of neighbouring properties. The ground floor and first floor BLZ will have minimal implications on POS provision or solar access to the subject site.

- *Retention of existing significant vegetation and opportunities for new significant vegetation is maximised.*

Comment:

The subject site does not currently have any significant vegetation with the exception of the tree which will be conditioned to be replaced. The proposed development will provide for an increased Landscaped Area, including private open space.

- *The height of the development has been kept to a minimum to minimise visual bulk and scale, as viewed from adjoining properties, in particular when viewed from the private open space of adjoining properties.*

Comment:

Where the BLZ breaches occur, these occur in the location of, and adjacent to, existing and adjoining building forms. Further, the proposed development will reduce the existing Site Coverage which further minimises the bulk and scale of the development as viewed from adjoining properties and its private open space. In addition, proposed building heights are respectful of the existing dwelling-house and adjoining properties. All the above will assist in mitigating adverse impacts on adjoining properties.

Given the above, it is considered that the proposed addition, subject to the imposition of conditions to manage visual privacy will meet the objectives and controls of this section of the DCP.

Site Boundary Setbacks

The proposed development does not include any works that will alter the side wall heights and setbacks of the approved development on both the northern and boundary walls on the first floor. However, a new wall on the south-eastern boundary is proposed to enable a larger kitchen overlooking the rear yard and new deck. Additionally, the proposed rumpus room on the lower ground floor requires new boundary walls to be constructed on both the north-eastern and south-western boundaries which will not comply with the side boundary setback control prescribed in this part of the DCP. Thus, the proposed development triggers control C8 of this section of the DCP.

Pursuant to Control C8 of this section of the Leichhardt DCP 2013, to gain support for the proposed setback variations, various requirements need to be demonstrated to be met. An assessment of the proposal against these tests is carried out below:

- e. *The development is consistent with relevant Building Typology Statements as outlined within Appendix B – Building Typologies of this Development Control Plan.*

Comment:

The proposal raises no issues in this regard.

- b. *The pattern of development within the streetscape is not compromised.*

Comment:

As discussed throughout this report, the proposed development is consistent with the streetscape of Evans Street with the main form of the terrace row retained. The proposed development maintains the development pattern on Hanover Street and is also consistent with the streetscape. The majority of the works are proposed towards the rear and the proposed development results in a sympathetic bulk and scale all assisting in minimising the visibility of the alterations from the street.

- c. *The potential impacts on amenity of adjoining properties, in terms of sunlight and privacy.*

Comment:

As discussed elsewhere in this report, the development as proposed and as conditioned will result in acceptable amenity impacts on adjoining properties.

- d. *Bulk and scale, are minimised.*

Comment:

For reasons discussed in this report, including under the BLZ assessment above, the proposal is considered to be of an acceptable bulk and scale.

- e. *Reasonable access is retained for necessary maintenance of adjoining properties.*

Comment:

The proposed changes will not obstruct adjoining properties for maintenance purposes.

Therefore, and with respect to the above, the proposed is considered to satisfy the above tests, and as such, the proposed side setbacks are supported in this instance.

### **C3.9 – Solar Access**

The subject site is on a west/east (front/rear) orientation, and therefore the following solar access controls apply pursuant to Part C3.9 of the Leichhardt DCP 2013: C11, C12, C15, C18 and C19.

#### **Alterations and Additions – Subject Site**

##### ***C11 – designed to minimise overshadowing to subject site***

Comment:

The proposed development will maintain the existing solar access to the western fenestrations at the subject site. The proposed additions and alterations maximise solar access to the glazing on the eastern wall of the subject dwelling. The fenestrations on this boundary will allow direct sunlight and daylight into living areas and natural ventilation throughout the rooms. In this regard, this control of the DCP is satisfied.



Minimise impact to neighbouring properties – Living areas

- *C12 – where the surrounding allotments are orientated east/west, main living room glazing must maintain a minimum of two hours solar access between 9am and 3pm during the winter solstice.*
- *C15 – where surrounding dwellings currently receive less than the required amount of solar access to the main living room between 9am and 3pm during the winter solstice, no further reduction of solar access is permitted*

Comment:

Due to the orientation of the subject site being west/east (front/rear), the adjoining property immediately to the south-west of the subject site, that is, 80 Evans Street, is susceptible to overshadowing and would be the only adjoining property that will be impacted by overshadowing from any proposed works at the subject site.

The applicant provided shadow diagrams on plan and elevation demonstrating the shadows cast to the south-eastern wall glazing (living room) area of the adjoining neighbour at 80 Evans Street. The shadow diagrams indicate that solar access to the south-east facing living room glazing of No. 80 Evans Street is substantially improved at 9:00am during the winter solstice compared to existing, and there is a combination of reduced and additional overshadowing of this adjoining glazing at 10:00am resulting in a net and minor increase in overshadowing at this time in mid-winter. However, in totality when comparing existing and proposed shadows cast at 9:00am and 10:00am, there is a net decrease in overshadowing of the south-east facing living room glazing of No. 80 Evans Street of a morning in mid-winter, and hence, the proposal does not further breach the Solar Access controls prescribed above.

Minimise impact to neighbouring properties – Private Open Space

The following solar access controls apply to the private open space of 80 Evans Street pursuant to Part C3.9 of the Leichhardt DCP 2013:

- *C18 – where surrounding dwellings have east/west facing private open space, ensure solar access is retained for 2.5 hours between 9am and 3pm 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 am and 3pm during the winter solstice, no further reduction of solar access is permitted.*

Comment:

The proposed development improves the overshadowing impact to the private open space (POS) of 80 Evans Street, Rozelle. At 10:00am and 11:00am, the proposed development results in reduced overshadowing to the private open space of the adjacent dwelling. It is noted that the submitted shadow diagrams indicate that the private open space of the adjacent dwelling is already in shadow at 9:00am, as well as from 12:00pm to 3:00pm.

Thus, the adjoining property at 80 Evans Street already does not have 2.5 hours of solar access to 50% of its POS from 9:00am to 3:00pm in mid-winter, and the proposed development improves the solar access to the POS of the adjoining site albeit minimally. Therefore, given this scenario, while C18 is not satisfied, the condition is existing and improved, and C19 is not triggered by the proposed development.

### C3.11 – Visual Privacy

#### *Lower Ground Floor*

Fencing to side boundaries will ensure no undue adverse privacy implications arise from the lower-level works.

#### *Ground Floor*

A large expanse of glazing is proposed to the combined kitchen/dining at the rear of the subject site. The following images in Figure 11 demonstrate the existing conditions at the subject with regard to visual privacy. These images demonstrate the lack of visual privacy for the residents at the subject site as well as both adjoining dwellings.

Whilst the proposed development is a marked improvement on the visual privacy overall, conditions are included in the recommendation requiring that privacy screening be included to the ground floor deck on its north-eastern and south-western sides to a height of 1.6m above the finished floor level to mitigate any undue adverse privacy impacts for neighbours and ensure the above provisions of Part C3.11 of the DCP are met.

#### *First Floor*

As seen in Figure 11, there is currently a large balcony at the subject site with a length of 6.77m and a depth of 0.9m. The proposed development will see the proposed balcony shortened to 6.61m. The proposed depth of 1.2m is consistent with Control C9, however, the proposed length is non-compliant to the recommended 2m maximum length of any balcony.

It is proposed however, that the balcony on the south-western boundary is reduced in depth in an attempt to minimise overlooking. While this is an improvement, and the proposed balcony length is largely an existing condition, a condition of consent is included in the recommendation requiring the provision of a privacy screen, a minimum of 1.6m in height and with a density of 75% to its north-eastern end to prevent adverse view lines into No. 76 Evans Street (the existing north-east facing wall and privacy screening to the dwelling at No. 80 Evans Street will be adequate to screen direct and undue adverse view lines from the balcony into No. 80 Evans Street).

Figure 11: overlooking available from the cantilevered deck at the subject site: Source: site inspection 18.05.2022.



Figure 11a: overlooking from the cantilevered deck. Source: site inspection, 18.05.2022





Figure 11b: direct overlooking from the balcony on the first floor. Source: site inspection 18.05.2022.



Figure 11c: direct overlooking from the balcony on the first floor. Source: site inspection 18.05.2022.



Figure 11d: view of the first-floor balcony which has overlooking of the POS of the adjoining properties. Source: site inspection 18.05.2022.



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

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(g) Any submissions

The application was notified in accordance with the Community Engagement Framework from 08 March 2022 to 22 March 2022. No submissions were received in response to notification.

#### 5(h) 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 considered contrary to public interest.

## 6 Referrals

### 6(a) Internal

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

- Development Engineer – conditions provided
- Heritage Advisors – acceptable as lodged
- Urban Forest – conditions provided

### 6(b) External

N/A

## 7. Section 7.11 Contributions/7.12 Levy

A Section 7.12 levy is 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 contribution of \$3000 would be required for the development under the following plan:

- Former Leichhardt Local Government Area Section 7.12 Development Contributions Plan 2020

A condition requiring that contribution to be paid is included in the recommendation.

## 8. Conclusion

The proposal generally complies with the aims, objectives and design parameters contained Leichhardt Local Environmental Plan 2013 and Leichhardt Development Control Plan 2013.

The development will not result in any significant impacts on the amenity of the adjoining premises/properties and the streetscape and the proposed development is not considered contrary public interest.

The application is considered suitable for approval subject to the imposition of appropriate conditions.



## 9. Recommendation

- A. The applicant has made a written request pursuant to Clause 4.3A(3)(b) of the Leichhardt Local Environmental Plan 2013. After considering the request, and assuming the concurrence of the Secretary has been given, the Panel is satisfied that compliance with the standard is unnecessary in the circumstance of the case and that there are sufficient environmental grounds to support the variation. The proposed development will be in the public interest because the exceedance is not inconsistent with the objectives of the standard and of the zone in which the development is to be carried out.
- B. The applicant has made a written request pursuant to Clause 4.4 of the Leichhardt Local Environmental Plan 2013. After considering the request, and assuming the concurrence of the Secretary has been given, the Panel is satisfied that compliance with the standard is unnecessary in the circumstance of the case and that there are sufficient environmental grounds to support the variation. The proposed development will be in the public interest because the exceedance is not inconsistent with the objectives of the standard and of the zone in which the development is to be carried out.
- C. That the Inner West Local Planning Panel exercising the functions of the Council as the consent authority, pursuant to s4.16 of the *Environmental Planning and Assessment Act 1979*, grant consent to Development Application No. DA/2022/0131 for lower ground, ground and first floor alterations and additions to existing dwelling and associated works, including demolition of rear parking structure and replacement with open parking space at 78 Evans Street, Rozelle subject to the conditions listed in Attachment A.

## Attachment A – Recommended conditions of consent

### CONDITIONS OF CONSENT

#### DOCUMENTS RELATED TO THE CONSENT

##### 1. Documents related to the consent

The development must be carried out in accordance with plans and documents listed below:

Plan, Revision and Issue No.	Plan Name	Date Issued	Prepared by
21-514 - DA01 - Issue B	Site Analysis	22.02.2022	Studio Panetta
21-514 - DA02 - Issue B	Site Plan	22.02.2022	Studio Panetta
21-514 - DA03 - Issue B	Floor Plans - Existing - Subfloor	22.02.2022	Studio Panetta
21-514 - DA04 - Issue B	Floor Plans - Existing - Ground Floor	22.02.2022	Studio Panetta
21-514 - DA05 - Issue B	Floor Plans - Existing - Level 1	22.02.2022	Studio Panetta
21-514 - DA06 - Issue B	Roof Plan - Existing	22.02.2022	Studio Panetta
21-514 - DA07 - Issue B	Elevations - Existing - North/West and South/East	22.02.2022	Studio Panetta
21-514 - DA08 - Issue B	Elevations - Existing - South/West and North/East	22.02.2022	Studio Panetta
21-514 - DA09 - Issue B	Sections - Existing - Cross Section 1 and Cross Section 2	22.02.2022	Studio Panetta
21-514 - DA10 - Issue B	Sections - Existing - Long Section 1 and Long Section 2	22.02.2022	Studio Panetta
21-514 - DA11 - Issue B	Floor Plans - Proposed - Rumpus	22.02.2022	Studio Panetta
21-514 - DA12 - Issue B	Floor Plans - Proposed - Ground Floor	22.02.2022	Studio Panetta
21-514 - DA13 - Issue B	Floor Plans - Proposed - Level 1	22.02.2022	Studio Panetta
21-514 - DA14 - Issue B	Concepts Stormwater Drainage Plan - Proposed Roof Plan	22.02.2022	Studio Panetta



21-514 - DA15 - Issue B	Elevations - Proposed North/West and South/East	22.02.2022	Studio Panetta
21-514 - DA16 - Issue B	Elevations - Proposed South/West and North/East	22.02.2022	Studio Panetta
21-514 - DA17 - Issue B	Sections - Proposed - Cross Sections 1, 2 and 3	22.02.2022	Studio Panetta
21-514 - DA18 - Issue B	Sections - Proposed - Long Section 1 & Long Section 2	22.02.2022	Studio Panetta
21-514 - DA19 - Issue B	Sections - Proposed - Cross Section 4 and Long Section 3	22.02.2022	Studio Panetta
21-514 - DA27 - Issue B	Materials and Finishes - Elevations - South/East, North/East and South/West	22.02.2022	Studio Panetta
210615 - C01 - Issue A	Stormwater Drainage Plan	27.01.2022	Development Engineering Solution
210615 - C02 - Issue A	Driveway Access Plan	27.01.2022	Development Engineering Solution
A445395	BASIX Certificate	22.02.2022	Raymond Panetta
Unnumbered	Arboricultural Impact Assessment (AIA) Report	Report Date: 21.01.2022	Margot Blues Consulti Arborist
ESWN-PR-2021-1156	Geotechnical Investigation Report	17.01.2022	ESWNMAN Pty Ltd

As amended by the conditions of consent.

## **FEES**

### **2. Security Deposit - Custom**

Prior to the commencement of demolition works or prior to the issue of a Construction Certificate, the Certifying Authority must be provided with written evidence that a security deposit and inspection fee has been paid to Council to cover the cost of making good any damage caused to any Council property or the physical environment as a consequence of

carrying out the works and as surety for the proper completion of any road, footpath and drainage works required by this consent.

**Security Deposit:** Min \$2,254.00

**Inspection Fee:** \$241.50

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

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

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

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

The amount nominated is only current for the financial year in which the initial 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.

### **3. Section 7.12 (formerly section 94A) Development Contribution Payments**

Prior to the issue of a Construction Certificate, written evidence must be provided to the Certifying Authority that a monetary contribution to the Inner West Council has been paid, towards the provision of infrastructure, required to address increased demand for local services generated by additional development within the Local Government Area (LGA). This condition is imposed in accordance with Section 7.12 of the *Environmental Planning and Assessment Act 1979* and in accordance with *Former Leichhardt Local Government Area Section 7.12 Development Contributions Plan 2020*.

Note: Copies of these contribution plans can be inspected at any of the Inner West Council Service Centres or viewed online at <https://www.innerwest.nsw.gov.au/develop/planning-controls/section-94-contributions>

Payment amount\*:

\$3,000.00

\*Indexing of the Section 7.12 contribution payment:

The contribution amount to be paid to the Council is to be adjusted at the time of the actual payment in accordance with the provisions of the relevant contributions plan. In this regard, you are recommended to make contact with Inner West Council *prior to arranging your payment method* to confirm the correct current payment amount (at the expected time of payment).

Payment methods:

The required contribution must be paid either *by BPAY (to a maximum of \$500,000); unendorsed bank cheque (from an Australian Bank only); EFTPOS (Debit only); credit card (Note: A 1% credit card transaction fee applies to all credit card transactions; cash (to a maximum of \$10,000))*. It should be noted that personal cheques or bank guarantees cannot be accepted for the payment of these contributions. **Prior to payment contact Council's Planning Team to review charges to current indexed quarter, please allow a minimum of 2 business days for the invoice to be issued before payment can be accepted.**

**4. Long Service Levy**

Prior to the issue of a Construction Certificate, written evidence must be provided to the Certifying Authority that the long service levy in accordance with Section 34 of the *Building and Construction Industry Long Service Payments Act 1986* has been paid 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.

**GENERAL CONDITIONS**

**5. Boundary Alignment Levels**

Alignment levels for the site at all pedestrian and vehicular access locations must match the existing back of footpath levels at the boundary.

**6. Tree Protection**

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.

Any public tree within five (5) metres of the development must be protected in accordance with Council's *Development Fact Sheet—Trees on Development Sites*.

No activities, storage or disposal of materials taking place beneath the canopy of any tree (including trees on neighbouring sites) protected under Council's Tree Management Controls at any time.

#### 7. Works to Trees

Approval is given for the following works to be undertaken to trees on the site after the issuing of a Construction Certificate:

Tree/location	Approved works
<i>Radermacheria sinica</i> (China Doll) - rear	Removal

Removal or pruning of any other tree (that would require consent of Council) on the site is not approved and shall be retained and protected in accordance with Council's *Development Fact Sheet—Trees on Development Sites*.

#### 8. Privacy

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with amended plans indicating the following:

- the erection of a privacy screen on the north-eastern and south-western ends of the ground floor rear deck having a minimum block out density of 75% and a height of 1.6 metres above the finished floor level of the deck.
- the erection of a privacy screen on the north-eastern end of the first-floor rear balcony having a minimum block out density of 75% and a height of 1.6m metres above the finished floor level of the balcony.

#### 9. Waste Management Plan

Prior to the commencement of any works (including any demolition works), the Certifying Authority is required to be provided with a Recycling and Waste Management Plan (RVMP) in accordance with the relevant Development Control Plan.

**10. Erosion and Sediment Control**

Prior to the issue of a commencement of any works (including any demolition works), the Certifying Authority must be provided with an erosion and sediment control plan and specification. Sediment control devices must be installed and maintained in proper working order to prevent sediment discharge from the construction site.

**11. Works Outside the Property Boundary**

This development consent does not authorise works outside the property boundaries on adjoining lands.

**PRIOR TO ANY DEMOLITION****12. Hoardings**

The person acting on this consent must ensure the site is 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 roads or Council controlled lands 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. An awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling onto public property.

Separate approval is required from the Council under the *Roads Act 1993* to erect a hoarding or temporary fence or awning on public property.

**13. Dilapidation Report**

Prior to any works commencing (including demolition), the Certifying Authority and owners of identified properties, must be provided with a colour copy of a dilapidation report prepared by a suitably qualified person. The report is required to include colour photographs of all the adjoining properties at No. 76 Evans Street and No. 80 Evans Street, Rozelle to the Certifying Authority's satisfaction. In the event that the consent of the adjoining property owner cannot be obtained to undertake the report, copies of the letter/s that have been sent via registered mail and any responses received must be forwarded to the Certifying Authority before work commences.

**14. Construction Fencing**

Prior to the commencement of any works (including demolition), the site must be enclosed with suitable fencing to prohibit unauthorised access. The fencing must be erected as a barrier between the public place and any neighbouring property.

**PRIOR TO CONSTRUCTION CERTIFICATE****15. Dilapidation Report – Pre-Development – Minor**

Prior to the issue of a Construction Certificate or any demolition, the Certifying Authority must be provided with a dilapidation report including colour photos showing the existing condition of the footpath and roadway adjacent to the site.

**16. Stormwater Drainage System – Minor Developments (OSD is not required)**

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with stormwater drainage design plans certified by a suitably qualified Civil Engineer that the design of the site drainage system complies with the following specific requirements:

- a. The design must generally be in accordance with the Stormwater Drainage Concept plan on Drawing No. C02 prepared by DEVELOPMENT ENGINEERING SOLUTIONS and dated 2 February 2022, as amended to comply with the following;
- b. Stormwater runoff from all roof areas within the property being collected in a system of gutters, pits and pipeline and be discharged, together with overflow pipelines from any rainwater tank(s), by gravity to the kerb and gutter of a public road;
- c. Comply with Council's Stormwater Drainage Code, Australian Rainfall and Runoff (A.R.R.), Australian Standard AS3500.3-2018 'Stormwater Drainage' and Council's DCP;
- d. Pipe and channel drainage systems must be designed to cater for the twenty (20) year Average Recurrence Interval (ARI) storm in the case of low and medium residential developments, the twenty (20) year ARI Storm in the case of high-density residential development and commercial and/or industrial developments and the fifty (50) year ARI Storm in the case of heavy industry. In all cases, the major event surface flow paths must be designed to cater for the one hundred (100) year ARI Storm;
- e. Charged or pump-out stormwater drainage systems are not permitted including for roof drainage
- f. To provide for adequate site drainage all roof and surface stormwater from the site and any catchment external to the site that presently drains to it, must be collected in a system of pits and pipelines/channels and major storm event surface flow paths and being discharged to a stormwater drainage system in accordance with the

requirements of Council's DCP. Please note any stormwater outlets through sandstone kerbs must be carefully core drilled;

- g. The design plans must detail the existing and proposed site drainage layout, size, class and grade of pipelines, pit types, roof gutter and downpipe sizes;
- h. A minimum 150mm step up shall be provided between all external finished surfaces and adjacent internal floor areas;
- i. The design must make provision for the natural flow of stormwater runoff from uphill/upstream properties/lands;
- j. No nuisance or concentration of flows to other properties;
- k. The design plans must specify that any components of the existing system to be retained must be certified during construction to be in good condition and of adequate capacity to convey the additional runoff generated by the development and be replaced or upgraded if required;
- l. An inspection opening or stormwater pit must be installed inside the property, adjacent to the boundary, for all stormwater outlets;
- m. Only a single point of discharge is permitted to the kerb and gutter, per frontage of the site;
- n. 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 4.0 mm and a maximum section height and width of 100 mm or sewer grade uPVC pipe with a maximum diameter of 100 mm;
- o. All stormwater outlets through sandstone kerbs must be carefully core drilled in accordance with Council standard drawings;
- p. All redundant pipelines within footpath area must be removed and footpath/kerb reinstated; and
- q. No impact to street tree(s).

#### 17. Changes to Levels

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with amended plans incorporating the following amendments:

- a. A 150 mm step up must be provided between the finished surface level of the external area and the finished floor level of the internal room.

#### 18. Amended Architectural Plans to Reflect Requirements Listed Below

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with amended architectural plans that incorporate the following recommendations:

- a. The design of the vehicular access and off-street parking facilities must comply with Australian Standard AS/NZS2890.1-2004 Parking Facilities – Off-Street Car Parking and the following specific requirements:
  - i. The parking space shall be amended provide for an all-weather surface (e. the turf to the car space shall be deleted);

- ii. The parking slab or driveway must rise within the property to be 170mm above the adjacent road gutter level and higher than the street kerb and footpath across the full width of the vehicle crossing. The longitudinal profile across the width of the vehicle crossing must comply with the Ground Clearance requirements of AS/NZS 2890.1-2004;
  - iii. A minimum of 2200mm headroom must be provided throughout the access and parking facilities. Note that the headroom must be measured at the lowest projection from the ceiling, such as lighting fixtures, and to open garage doors;
  - iv. Longitudinal sections along each outer edge of the access and parking facilities, extending to the centreline of the road carriageway must be provided at a natural scale of 1:25, demonstrating compliance with the above requirements. Distances (chainages), existing and design levels, including level at the boundary must be shown on the long section. Changing of the existing surface ground levels within the road reserve is not permitted;
  - v. The enclosed carport/ parking space must have minimum clear internal dimensions of x 3000 mm (length x width) The dimensions must be exclusive of obstructions such as walls, doors and columns, except where they do not encroach inside the design envelope specified in Section 5.2 of AS/NZS 2890.1-2004;
  - vi. A plan of the proposed access and adjacent laneway, drawn at a 1:100 scale, demonstrating that vehicle manoeuvrability for entry and exit to the parking space complies with swept paths from AS/NZS 2890.1:2004. The plan must include any existing on-street parking spaces;
  - vii. The maximum gradients within the parking module must not exceed 1 in 20 (5%), measured parallel to the angle of parking and 1 in 16 (6.25%), measured in any other direction in accordance with the requirements of Section 2.4.6 of AS/NZS 2890.1-2004;
- b. A minimum 150 mm step up shall be provided between all external finished surfaces and finished floor level of the proposed rumpus room. The finished floor level of the rumpus room below the external finished surfaces is not permitted.

#### 19. Construction Methods to Minimise Impact on Trees

Prior to the issue of a Construction Certificate, the Certifying Authority must be provided with details certified by a suitably qualified Arborist demonstrating that the design has allowed for the retention of the base of the trunk and structural roots of the Dracena/Yucca tree located at the rear of 76 Evans Street. Refer to the Arboricultural Impact Assessment report prepared by Margot Blues and dated 21/01/2 for details.

#### 20. Structural Certificate for retained elements of the building

Prior to the issue of a Construction Certificate, the Certifying Authority is required to be provided with a Structural Certificate prepared by a practising structural engineer, certifying the structural adequacy of the property and its ability to withstand the proposed additional, or altered structural loads during all stages of construction. The certificate must also include all details of the methodology to be employed in construction phases to achieve the above



requirements without result in demolition of elements marked on the approved plans for retention.

#### **21. Sydney Water – Tap In**

Prior to the issue of a Construction Certificate, the Certifying Authority is required to ensure approval has been granted through Sydney Water's online 'Tap In' program 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.

*Note: Please refer to the web site <http://www.sydneywater.com.au/tapin/index.htm> for details on the process or telephone 13 20 92*

### **DURING DEMOLITION AND CONSTRUCTION**

#### **22. Construction Hours – Class 1 and 10**

Unless otherwise approved by Council, excavation, demolition, construction or subdivision work are only permitted between the hours of 7:00am to 5:00pm, Mondays to Saturdays (inclusive) with no works permitted on, Sundays or Public Holidays.

#### **23. Survey Prior to Footings**

Upon excavation of the footings and before the pouring of the concrete, the Certifying Authority must be provided with a certificate of survey from a registered land surveyor to verify that the structure will not encroach over the allotment boundaries.

#### **24. Excavation Works**

Excavation works and construction excavation works must be carried out in accordance with the findings and recommendations made in the Geotechnical Investigation Report, reference number: ESWN-PR-2021-1156, dated 17 January 2022, prepared by ESWNMAN Pty Ltd.

### **PRIOR TO OCCUPATION CERTIFICATE**

#### **25. No Encroachments**

Prior to the issue of an Occupation Certificate, the Principal Certifier must ensure that any encroachments on to Council road or footpath resulting from the building works have been removed, including opening doors, gates and garage doors with the exception of any awnings or balconies approved by Council.

**26. Protect Sandstone Kerb**

Prior to the issue of an Occupation Certificate, the Principal Certifier must ensure that any stone kerb, damaged as a consequence of the work that is the subject of this development consent, has been replaced.

**27. Certification of Tree Planting**

Prior to the issue of any Occupation Certificate, the Principal Certifier is to be provided with evidence certified by a person holding a minimum qualification of AQF3 Certificate of Horticulture or Arboriculture that:

A minimum of 1 x 45 litre (container size) size tree, which will attain a minimum mature height of seven (7) metres, has been planted in a suitable location within the property at a minimum of 1.5 metres from any boundary or structure and 2.3 metres from the dwelling wall. The tree is to conform to AS2303—*Tree stock for landscape use*. Trees listed on the Tree Minor Works list in Council's Tree Management Controls, Palms, fruit trees and species recognised to have a short life span will not be accepted as suitable replacements.

If the tree is found dead or dying before it reaches a height where it is protected by Council's Tree Management Controls, it must be replaced in accordance with this condition.

**ADVISORY NOTES****Permits**

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

- a. Work zone (designated parking for construction vehicles). Note that a minimum of 2 months should be allowed for the processing of a Work Zone application;
- b. A concrete pump across the roadway/footpath;
- c. Mobile crane or any standing plant;
- d. Skip Bins;
- e. Scaffolding/Hoardings (fencing on public land);
- f. Public domain works including vehicle crossing, kerb & guttering, footpath, stormwater, etc.;

- g. Awning or street veranda over the footpath;
- h. Partial or full road closure; and
- i. Installation or replacement of private stormwater drain, utility service or water supply.

If required contact Council's Road Access team to ensure the correct Permit applications are made for the various activities. Applications for such Permits must be submitted and approved by Council prior to the commencement of the works associated with such activity.

#### **Insurances**

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

#### **Consent of Adjoining property owners**

This consent does not authorise the applicant, or the contractor engaged to do the tree works to enter a neighbouring property. Where access to adjacent land is required to carry out approved tree works, Council advises that the owner's consent must be sought. Notification is the responsibility of the person acting on the consent. Should the tree owner/s refuse access to their land, the person acting on the consent must meet the requirements of the *Access To Neighbouring Lands Act 2000* to seek access.

#### **Tree Protection Works**

All tree protection for the site must be undertaken in accordance with Council's *Development Fact Sheet—Trees on Development Sites* and AS4970—*Protection of trees on development sites*.

#### **Prescribed Conditions**

This consent is subject to the prescribed conditions of consent within clause 98-98E of the *Environmental Planning and Assessment Regulations 2000*.

#### **Notification of commencement of works**

At least 7 days before any demolition work commences:

- a. The Council must be notified of the following particulars:

- i. the name, address, telephone contact details and licence number of the person responsible for carrying out the work; and
  - ii. the date the work is due to commence and the expected completion date; and
- b. A written notice must be placed in the letter box of each directly adjoining property identified advising of the date the work is due to commence.

**Storage of Materials on public property**

The placing of any materials on Council's footpath or roadway is prohibited, without the prior consent of Council.

**Toilet Facilities**

The following facilities must be provided on the site:

- a. Toilet facilities in accordance with WorkCover NSW requirements, at a ratio of one toilet per every 20 employees; and
- b. A garbage receptacle for food scraps and papers, with a tight fitting lid.

Facilities must be located so that they will not cause a nuisance.

**Infrastructure**

The developer must liaise with the Sydney Water Corporation, Ausgrid, AGL and Telstra concerning the provision of water and sewerage, electricity, natural gas and telephones respectively to the property. Any adjustment or augmentation of any public utility services including Gas, Water, Sewer, Electricity, Street lighting and Telecommunications required as a result of the development must be undertaken before occupation of the site.

**Other Approvals may be needed**

Approvals under other acts and regulations may be required to carry out the development. It is the responsibility of property owners to ensure that they comply with all relevant legislation. Council takes no responsibility for informing applicants of any separate approvals required.

**Failure to comply with conditions**

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.

**Other works**

Works or activities other than those approved by this Development Consent will require the submission of a new Development Application or an application to modify the consent under Section 4.55 of the *Environmental Planning and Assessment Act 1979*.

**Obtaining Relevant Certification**

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; or
- g. Development Application for subdivision if consent for subdivision is not granted by this consent.

**Disability Discrimination Access to Premises Code**

The *Disability Discrimination Act 1992* (Commonwealth) and the *Anti-Discrimination Act 1977* (NSW) impose obligations on persons relating to disability discrimination. Council's determination of the application does not relieve persons who have obligations under those Acts of the necessity to comply with those Acts.

**National Construction Code (Building Code of Australia)**

A complete assessment of the application under the provisions of the National Construction Code (Building Code of Australia) has not been carried out. All building works approved by this consent must be carried out in accordance with the requirements of the National Construction Code.

**Notification of commencement of works**

Residential building work within the meaning of the *Home Building Act 1989* must not be carried out unless the PCA (not being the council) has given the Council written notice of the following information:

- 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.
- 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.

**Dividing Fences Act**

The person acting on this consent must comply with the requirements of the *Dividing Fences Act 1991* in respect to the alterations and additions to the boundary fences.

**Permits from Council under Other Acts**

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

- a. Work zone (designated parking for construction vehicles). Note that a minimum of 2 months should be allowed for the processing of a Work Zone application;
- b. A concrete pump across the roadway/footpath;
- c. Mobile crane or any standing plant;
- d. Skip bins;
- e. Scaffolding/Hoardings (fencing on public land);
- f. Public domain works including vehicle crossing, kerb & guttering, footpath, stormwater, etc.;
- g. Awning or street verandah over footpath;
- h. Partial or full road closure; and
- i. Installation or replacement of private stormwater drain, utility service or water supply.

Contact Council's Road Access team to ensure the correct Permit applications are made for the various activities. A lease fee is payable for all occupations.



**Noise**

Noise arising from the works must be controlled in accordance with the requirements of the *Protection of the Environment Operations Act 1997*.

**Amenity Impacts General**

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

**Lead-based Paint**

Buildings built or painted prior to the 1970's may have surfaces coated with lead-based paints. Recent evidence indicates that lead is harmful to people at levels previously thought safe. Children particularly have been found to be susceptible to lead poisoning and cases of acute child lead poisonings in Sydney have been attributed to home renovation activities involving the removal of lead based paints. Precautions should therefore be taken if painted surfaces are to be removed or sanded as part of the proposed building alterations, particularly where children or pregnant women may be exposed, and work areas should be thoroughly cleaned prior to occupation of the room or building.

**Dial before you dig**

Contact "Dial Prior to You Dig" prior to commencing any building activity on the site.

**Useful Contacts**

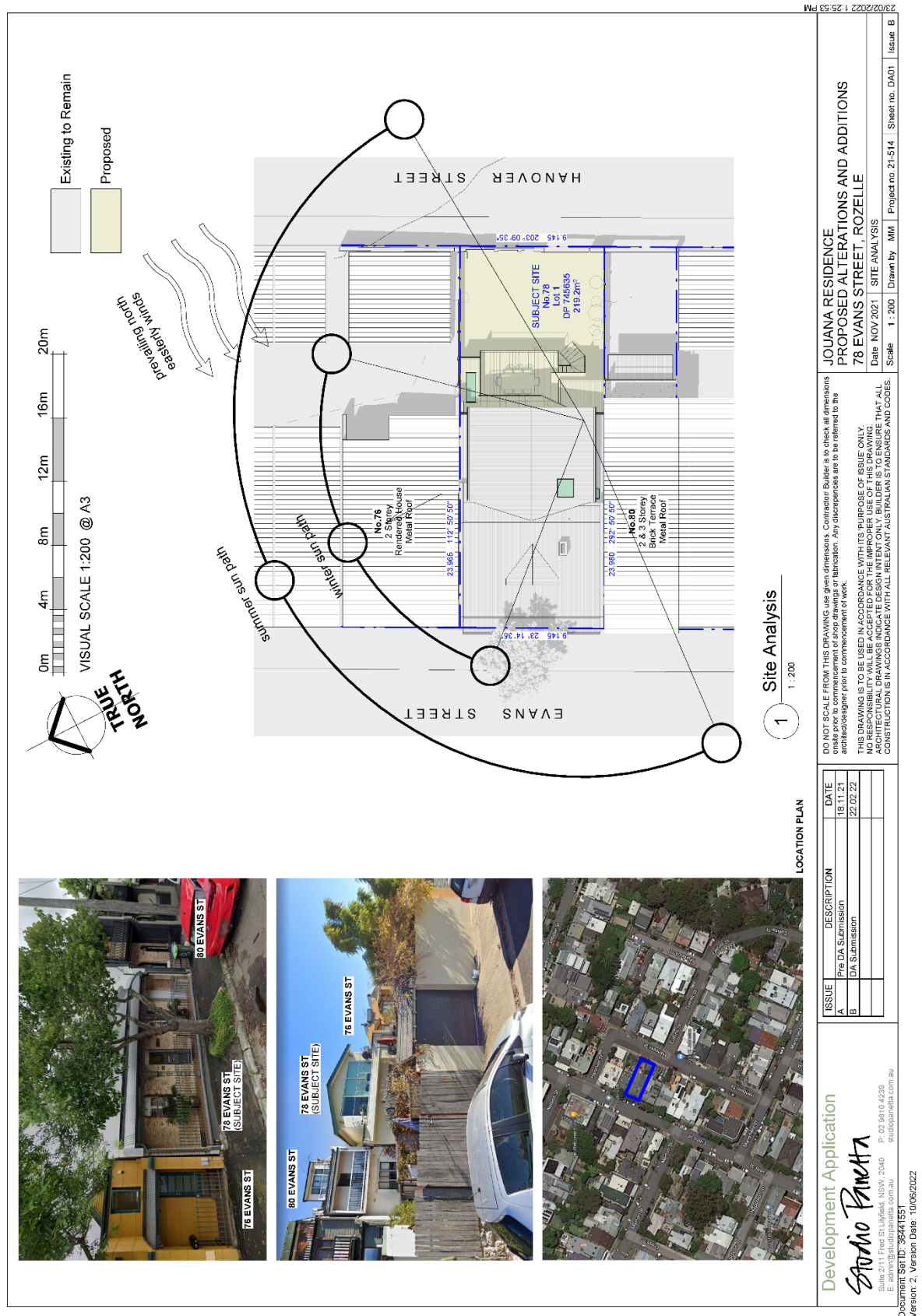
BASIX Information	1300 650 908 weekdays 2:00pm - 5:00pm <a href="http://www.basix.nsw.gov.au">www.basix.nsw.gov.au</a>
Department of Fair Trading	13 32 20 <a href="http://www.fairtrading.nsw.gov.au">www.fairtrading.nsw.gov.au</a> Enquiries relating to Owner Builder Permits and Home Warranty Insurance.
Dial Prior to You Dig	1100

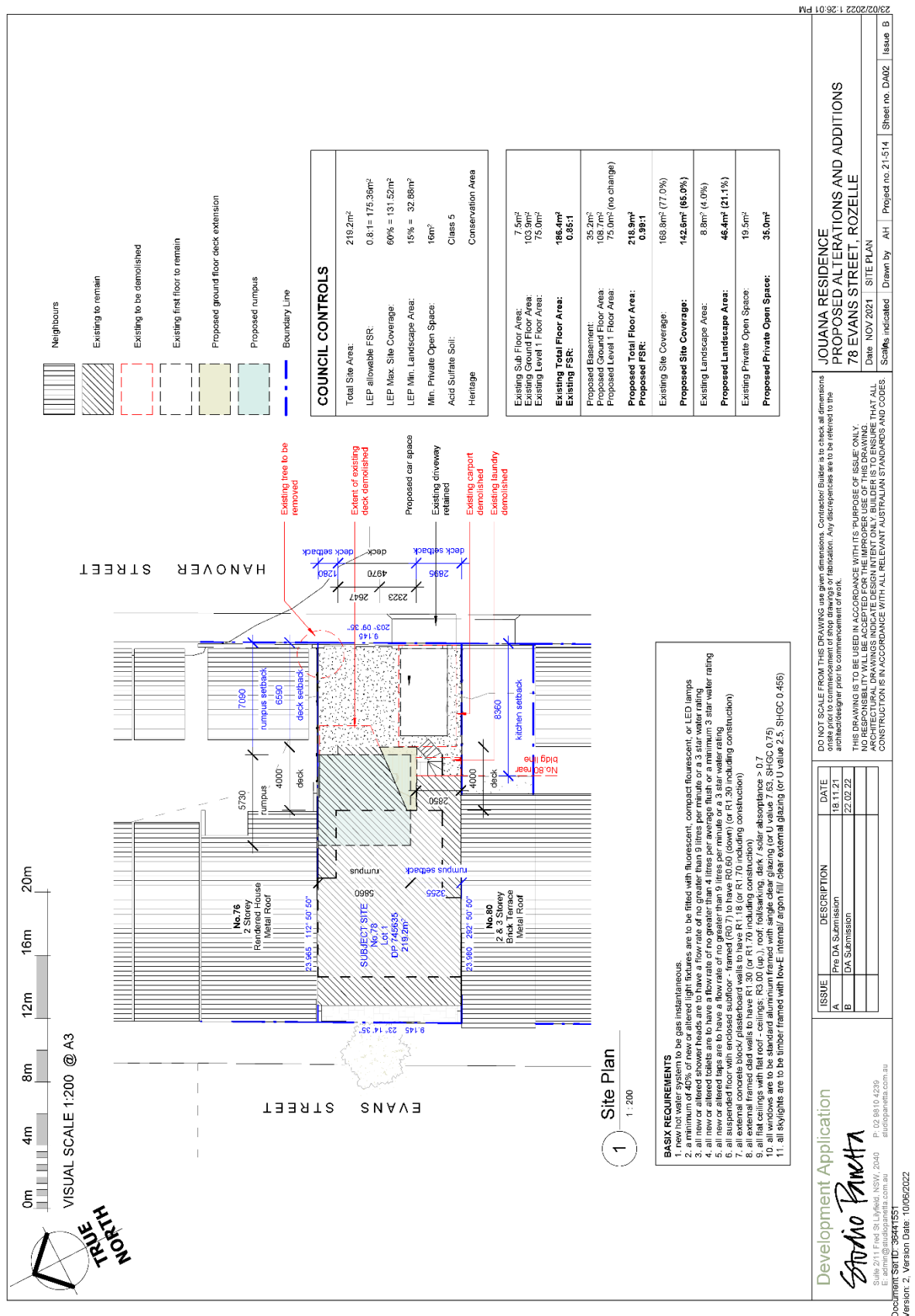
			<a href="http://www.dialprior toyoudig.com.au">www.dialprior toyoudig.com.au</a>
Landcom		9841 8660	
			To purchase copies of Volume One of "Soils and Construction"
Long Service Corporation	Payments	131441	
			<a href="http://www.lspc.nsw.gov.au">www.lspc.nsw.gov.au</a>
NSW Food Authority		1300 552 406	
			<a href="http://www.foodnotify.nsw.gov.au">www.foodnotify.nsw.gov.au</a>
NSW Government			<a href="http://www.nsw.gov.au/fibro">www.nsw.gov.au/fibro</a>
			<a href="http://www.diysafe.nsw.gov.au">www.diysafe.nsw.gov.au</a>
			Information on asbestos and safe work practices.
NSW Office of Environment and Heritage		131 555	
			<a href="http://www.environment.nsw.gov.au">www.environment.nsw.gov.au</a>
Sydney Water		13 20 92	
			<a href="http://www.sydneywater.com.au">www.sydneywater.com.au</a>
Waste Service - Environmental Solutions	SITA	1300 651 116	
			<a href="http://www.wasteservice.nsw.gov.au">www.wasteservice.nsw.gov.au</a>
Water Efficiency Labelling and Standards (WELS)			<a href="http://www.waterrating.gov.au">www.waterrating.gov.au</a>
WorkCover Authority of NSW		13 10 50	
			<a href="http://www.workcover.nsw.gov.au">www.workcover.nsw.gov.au</a>
			Enquiries relating to work safety and asbestos removal and disposal.

**Street Numbering**

If any new street numbers or change to street numbers (this includes unit and shop numbers) are required, a separate application must be lodged with and approved by Council's GIS Team before being displayed.

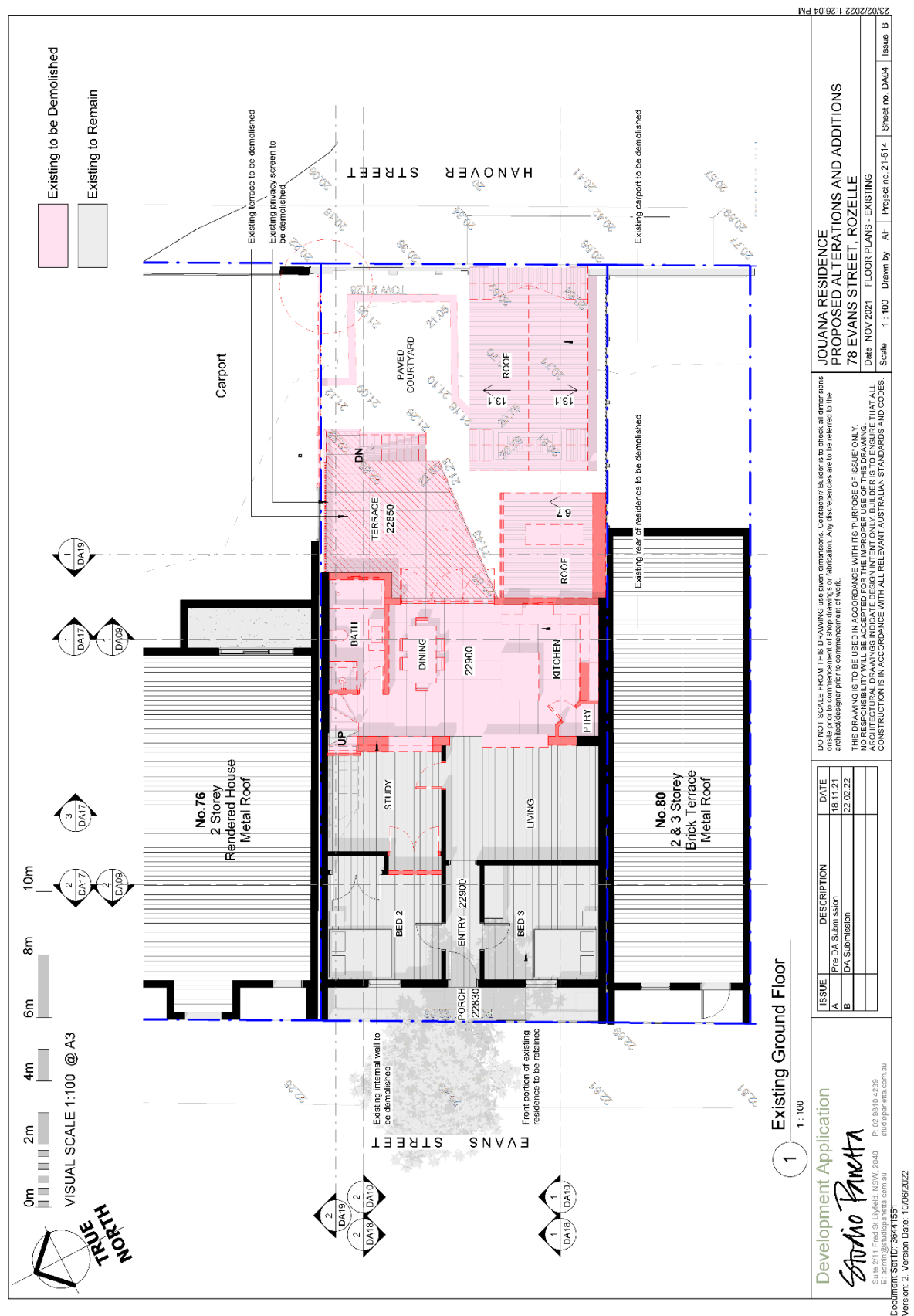
## Attachment B – Plans of proposed development

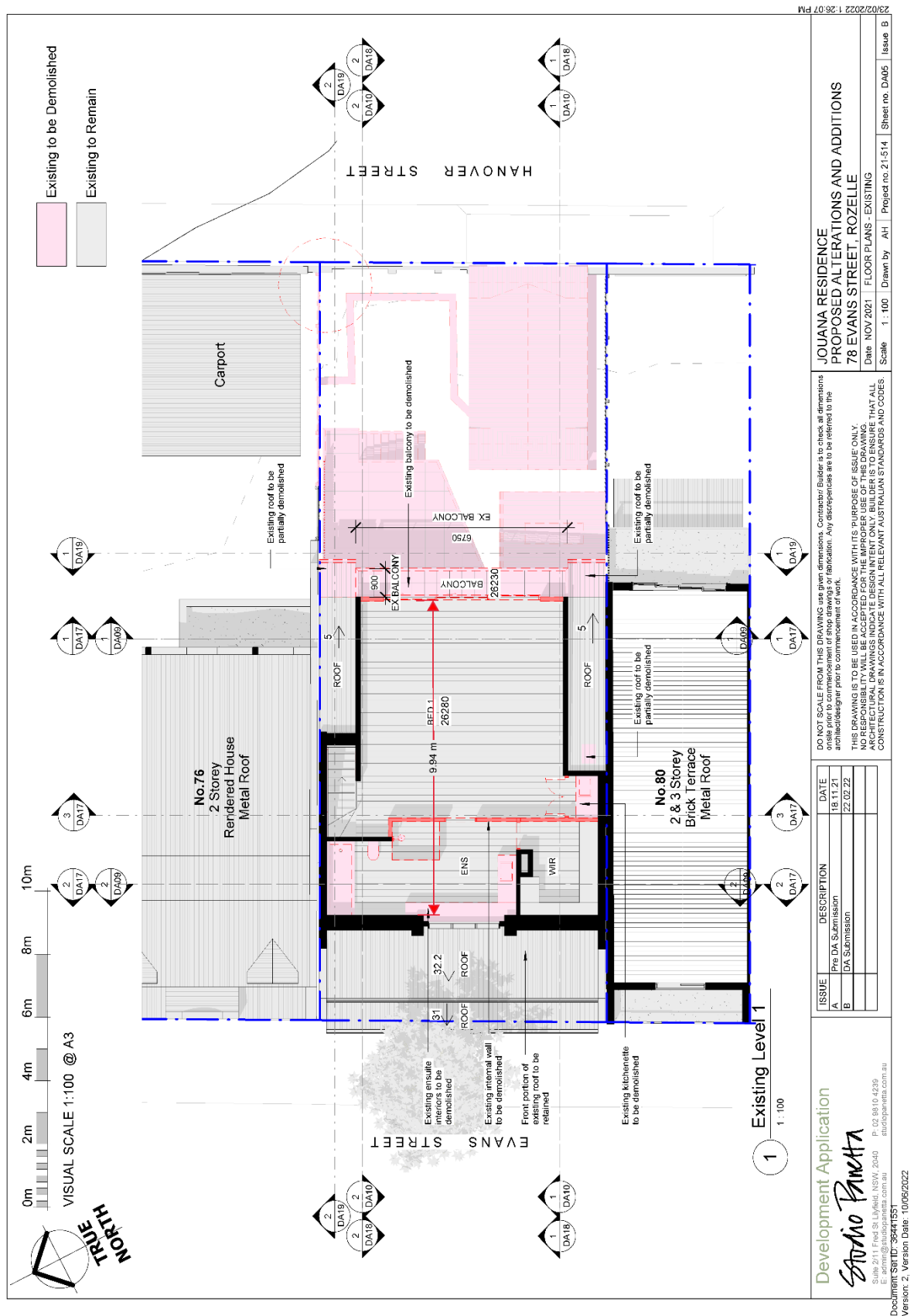




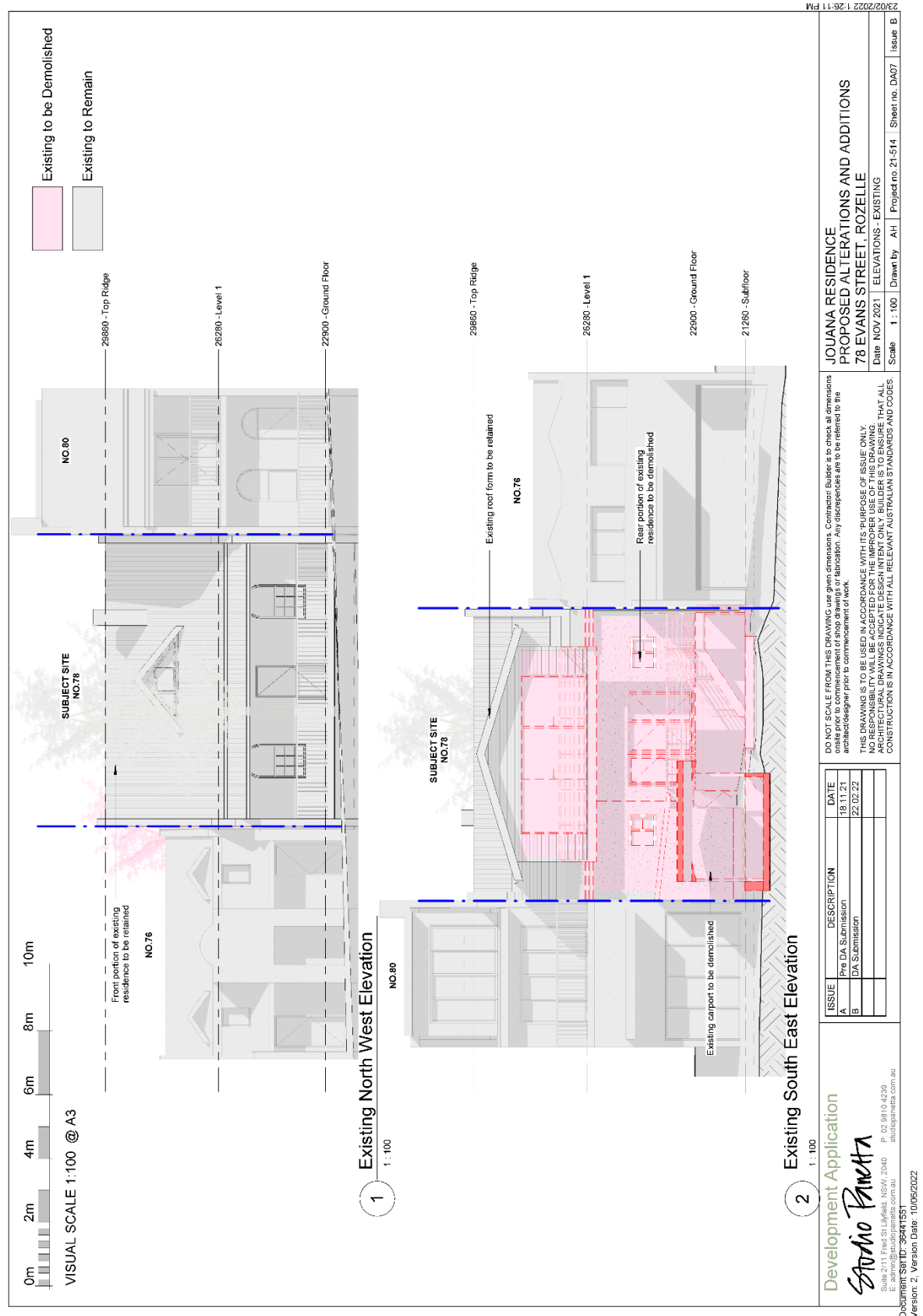


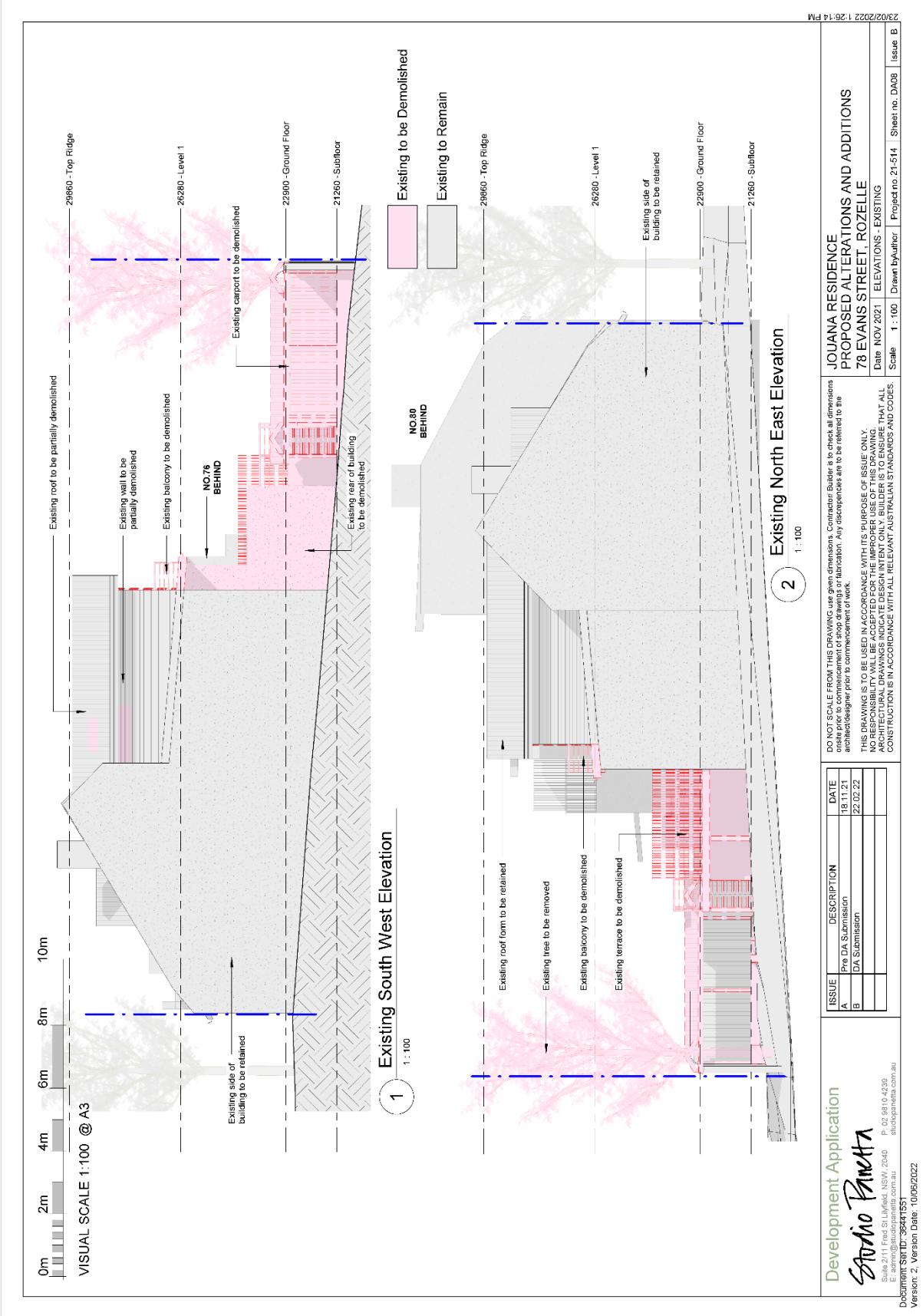


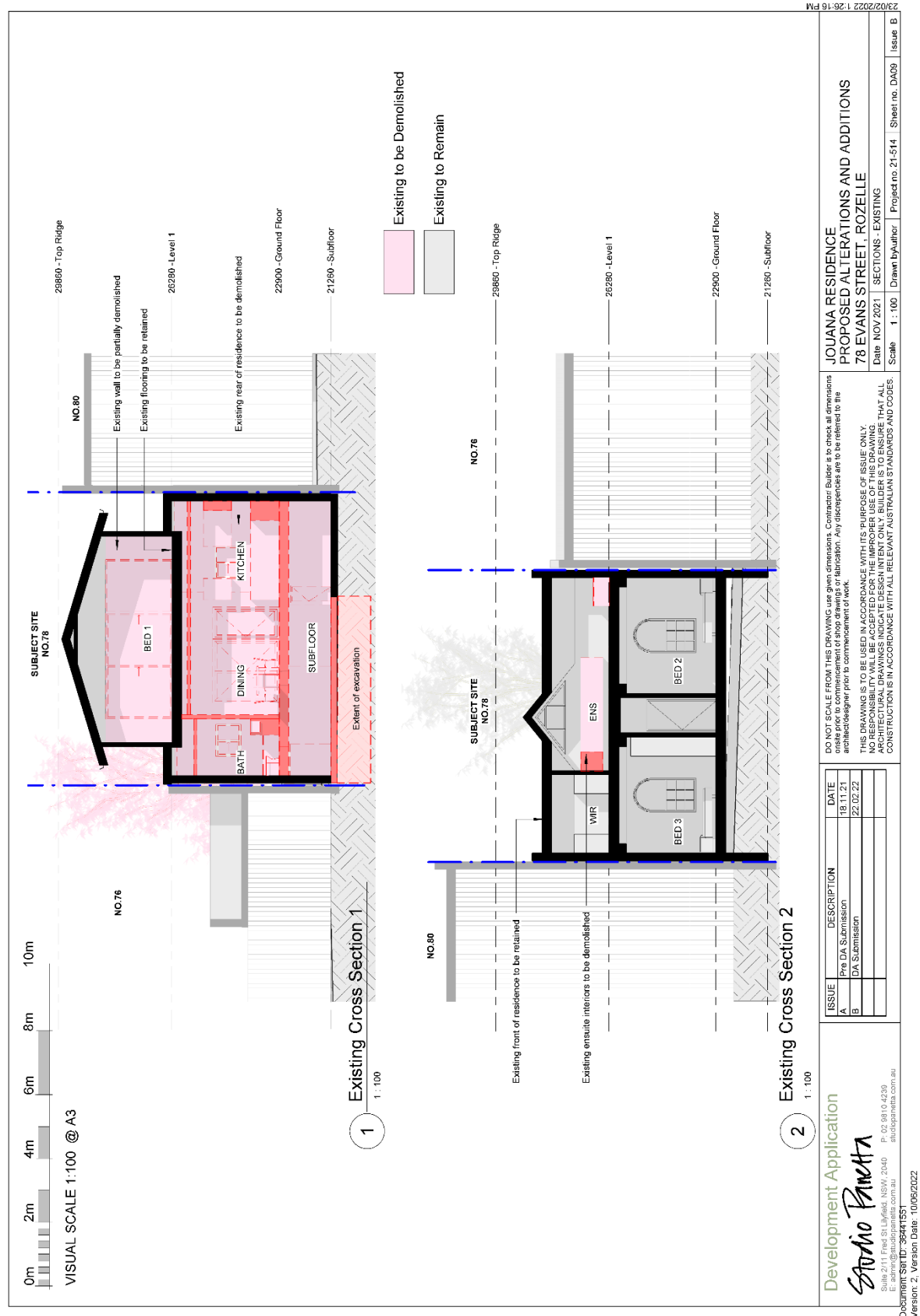




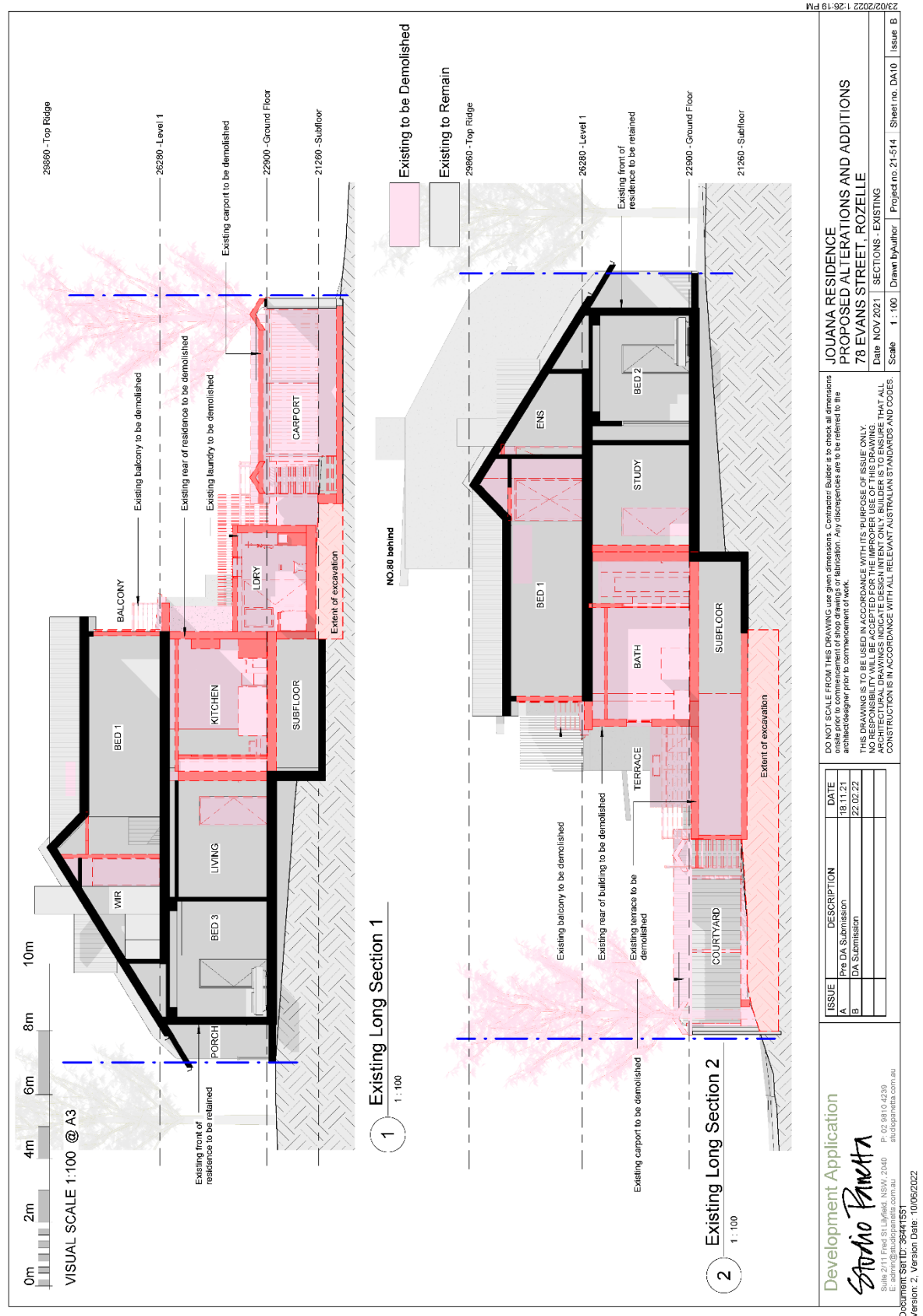




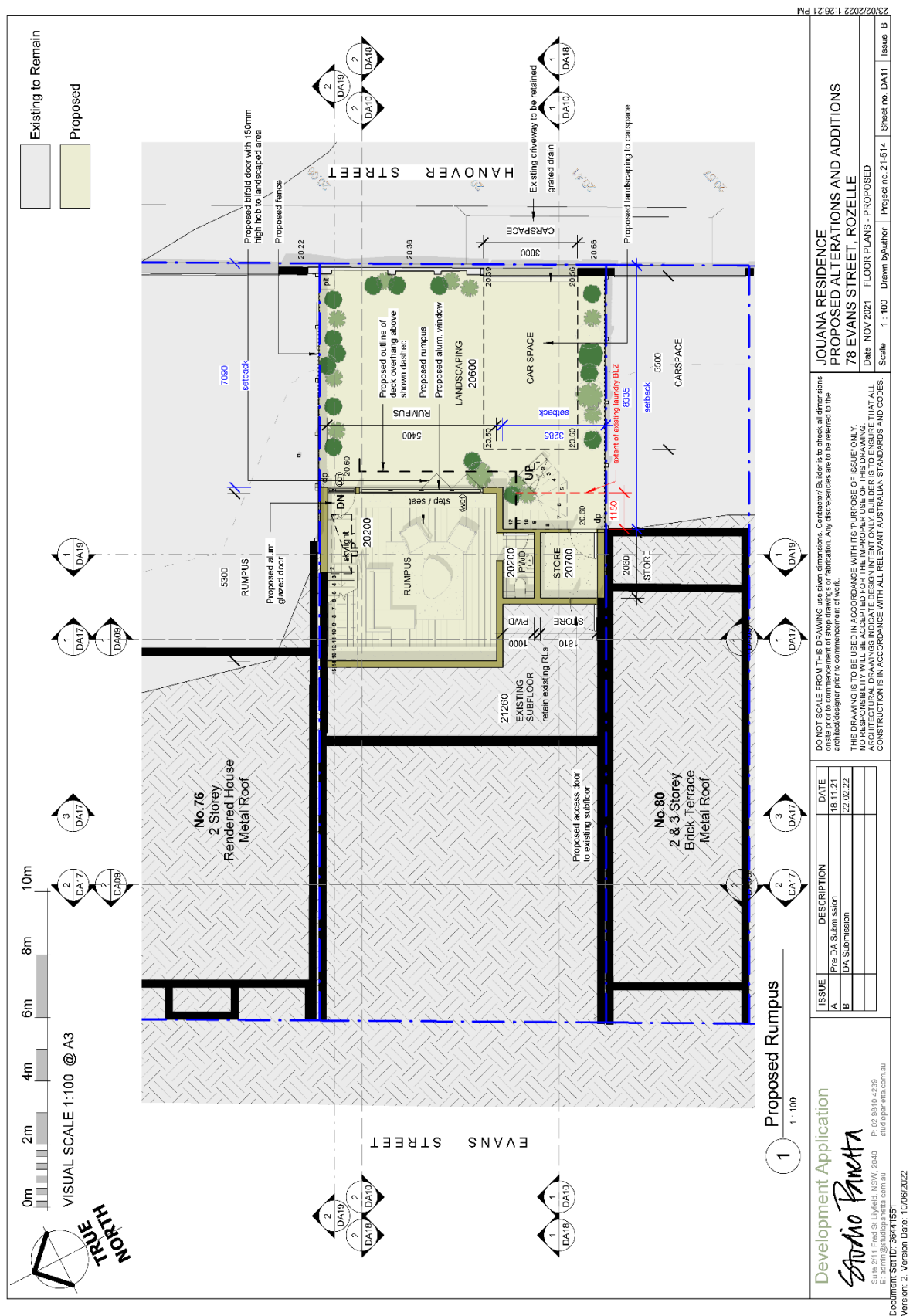


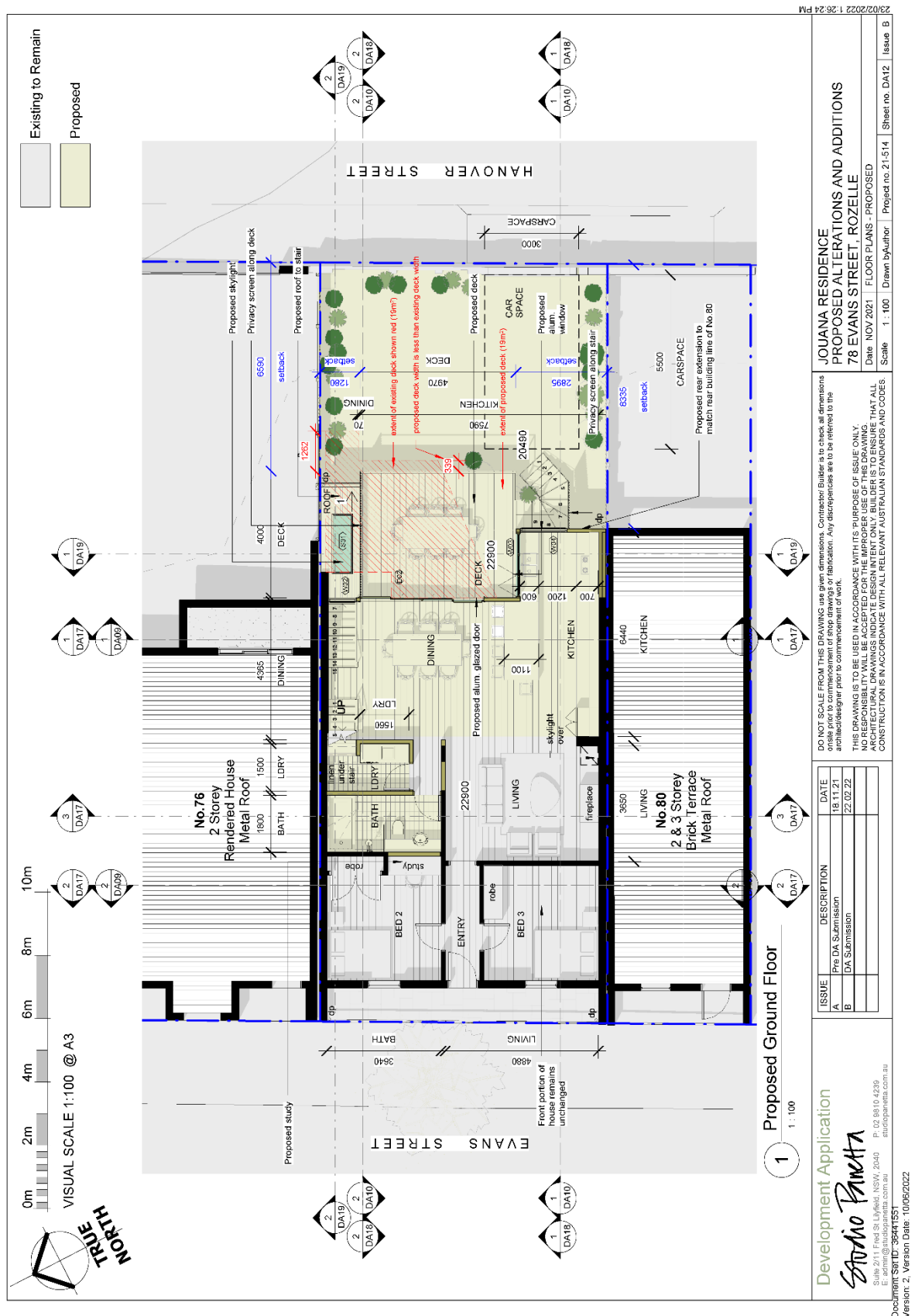


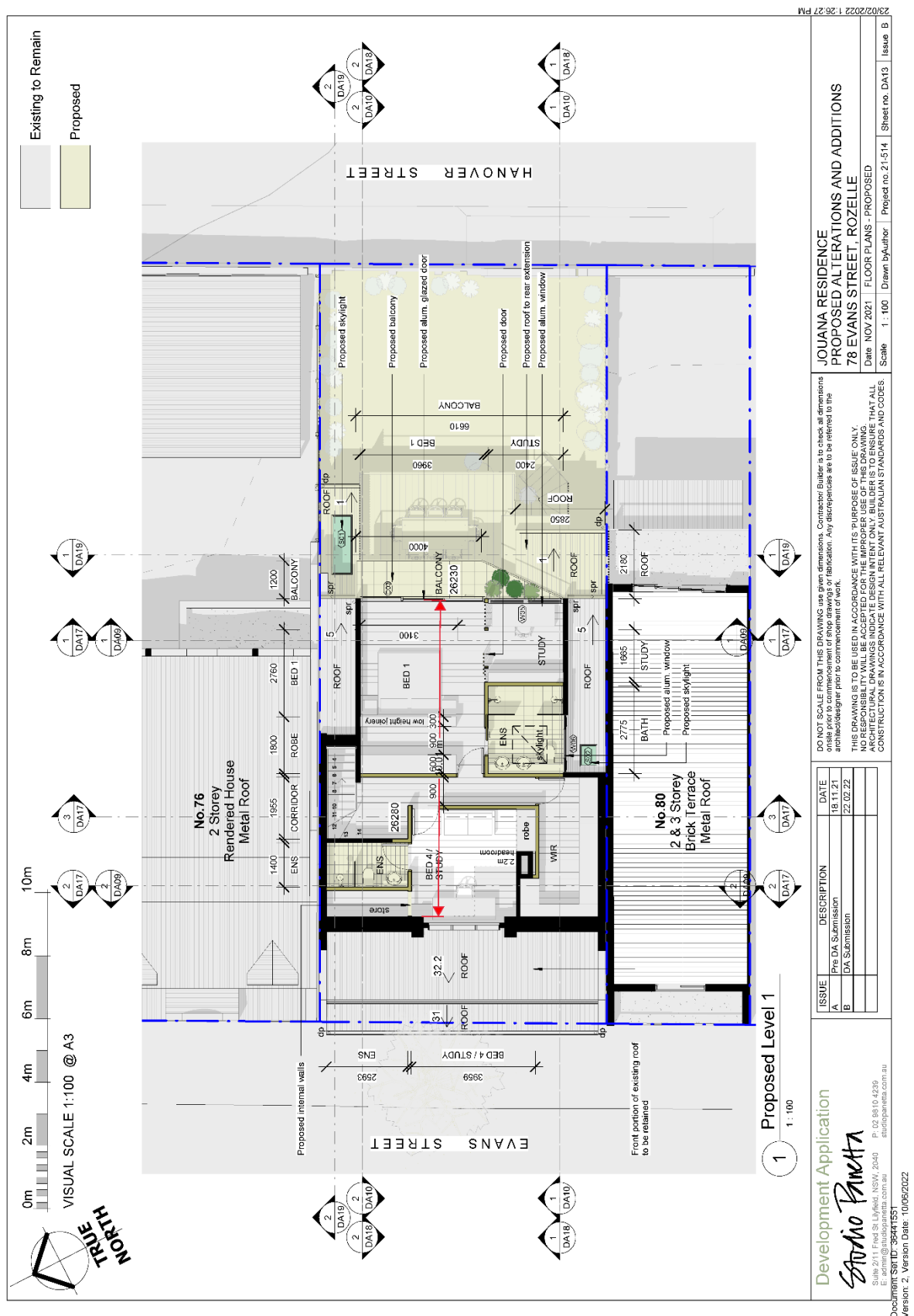


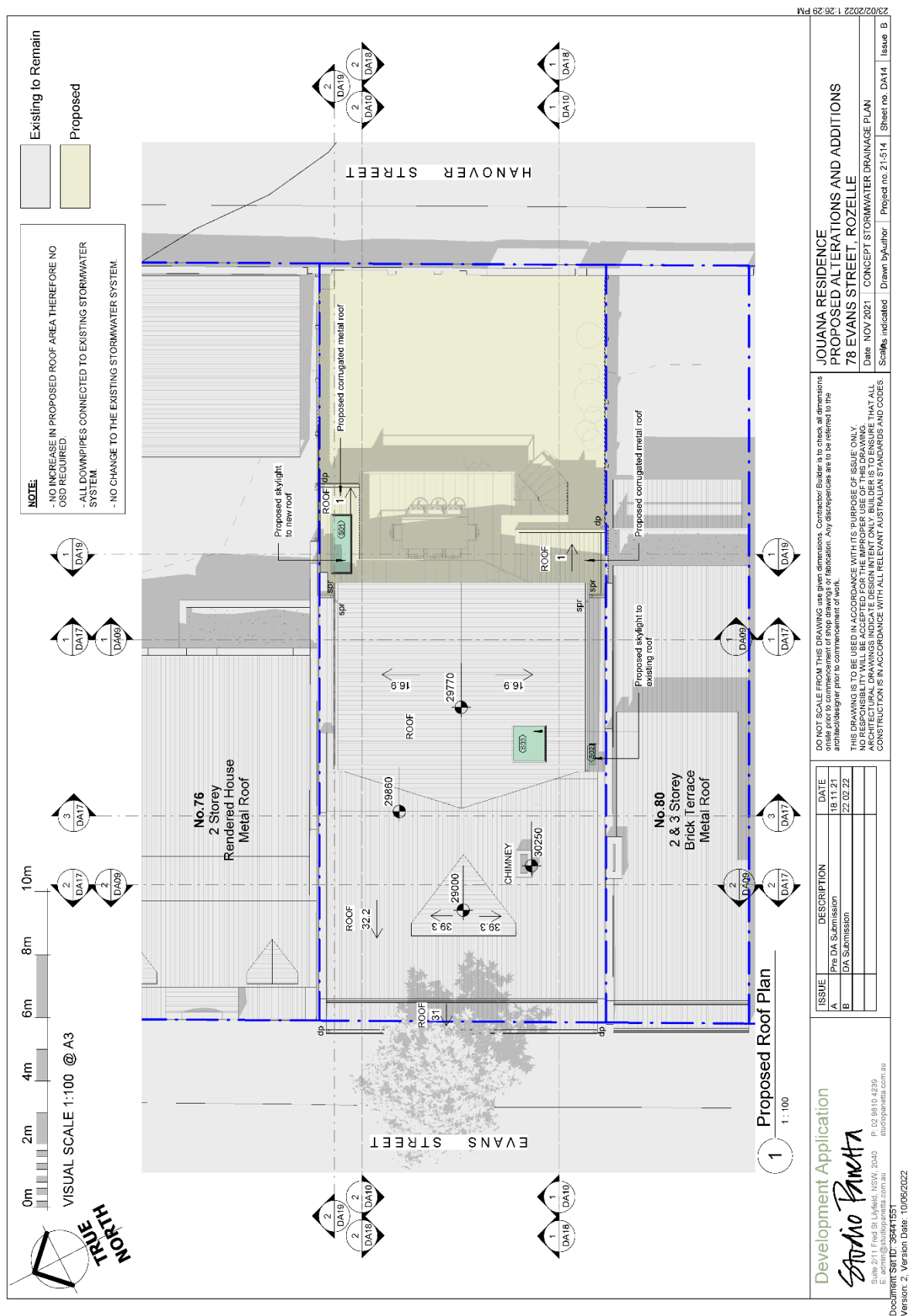


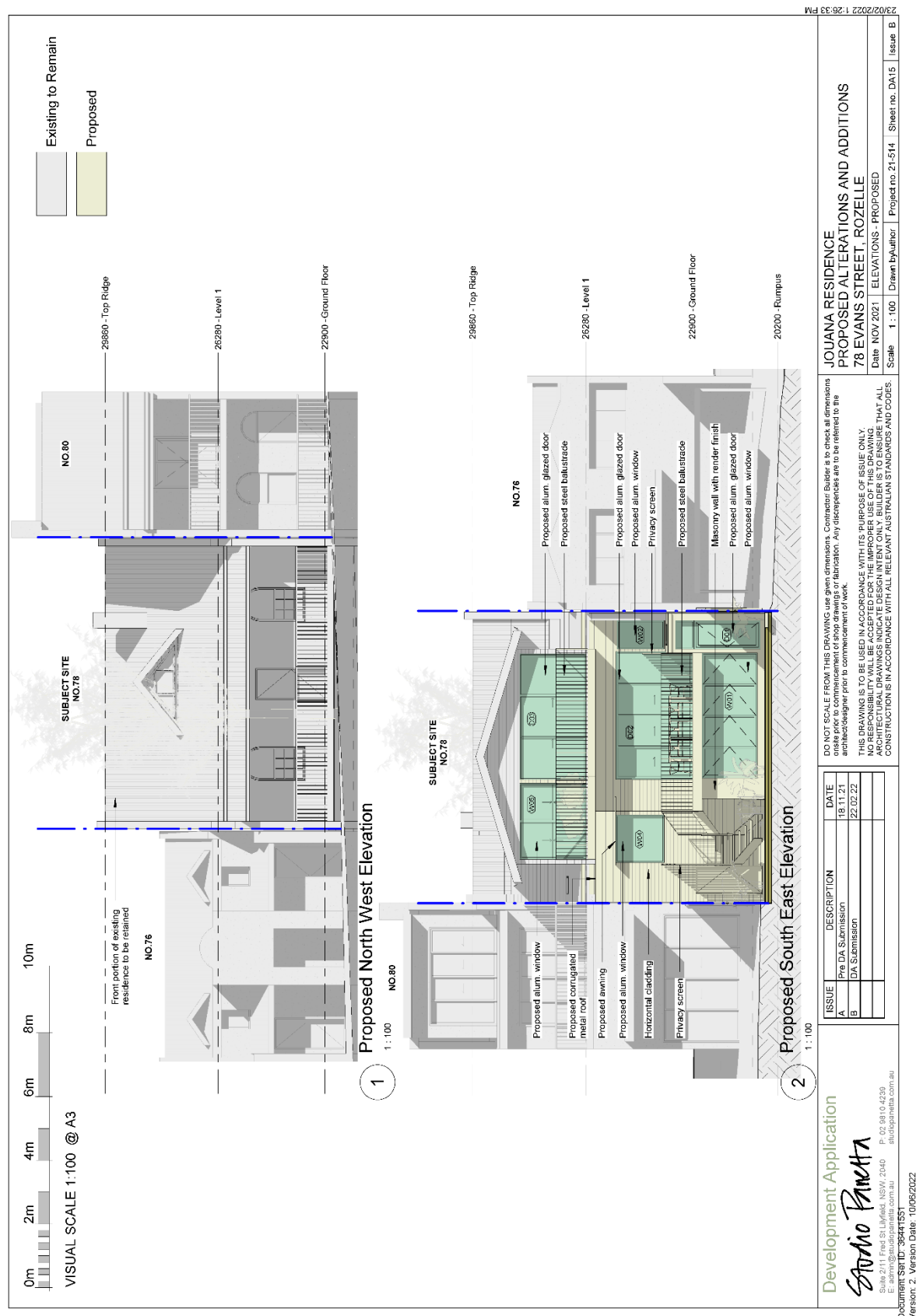


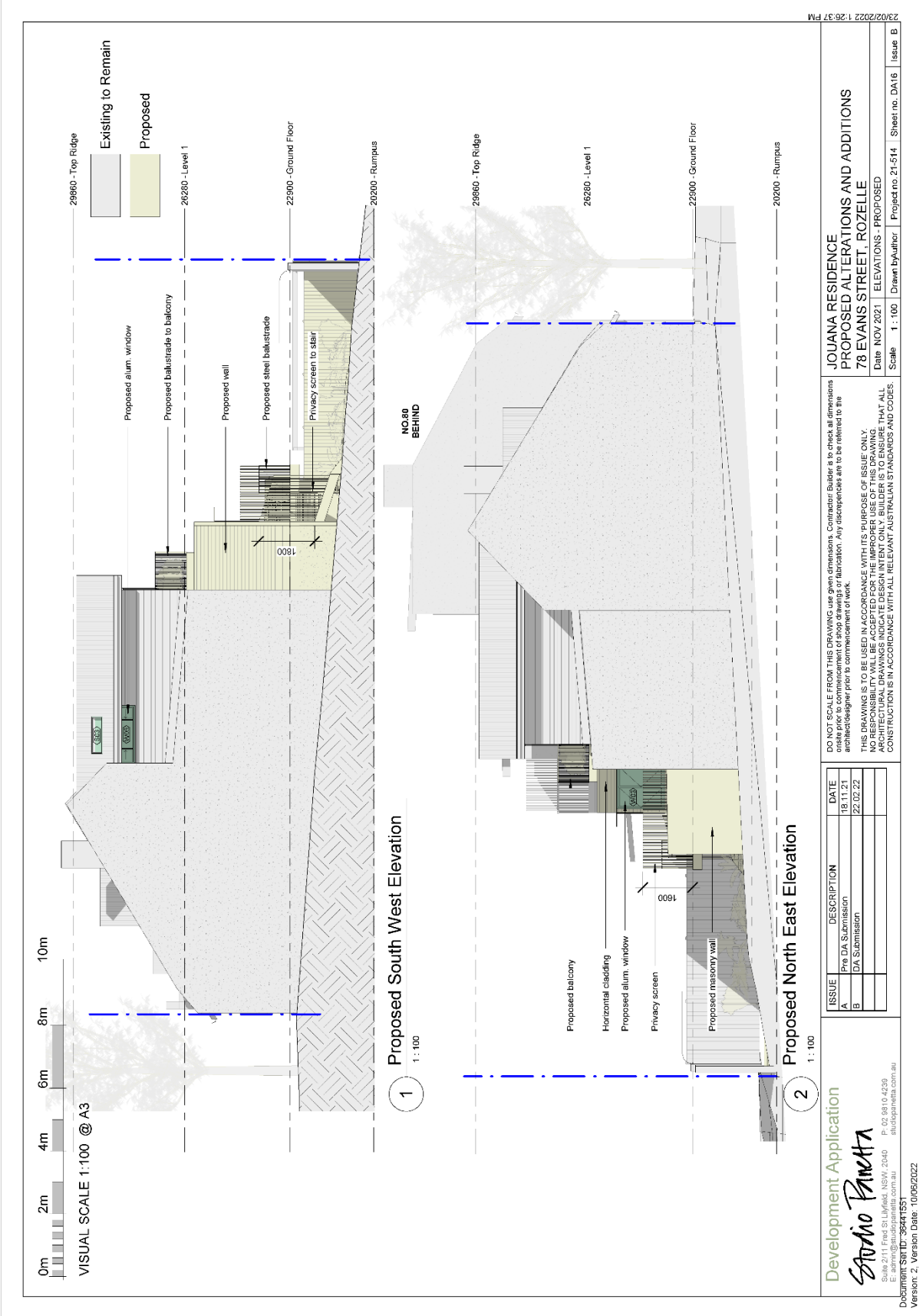




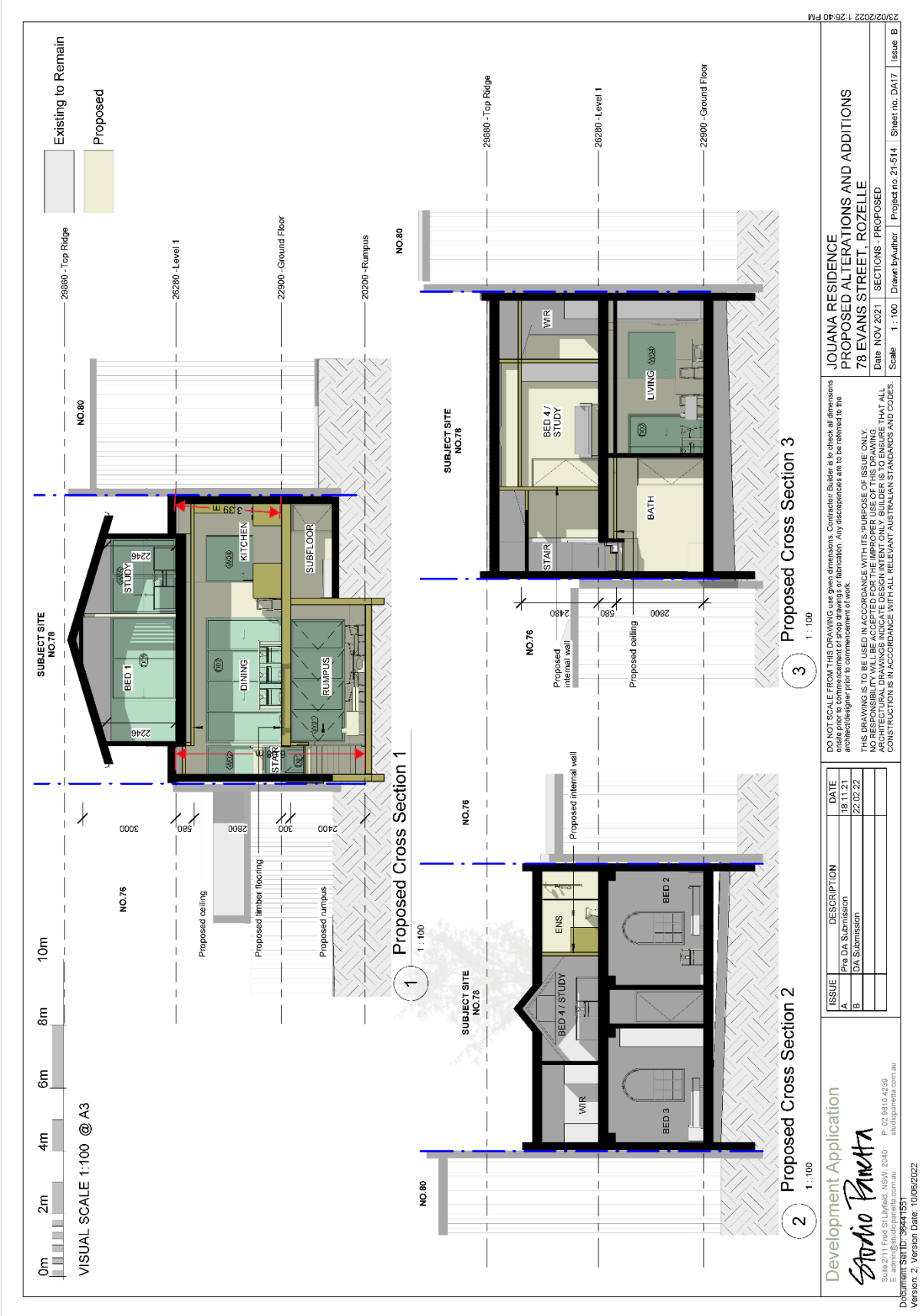




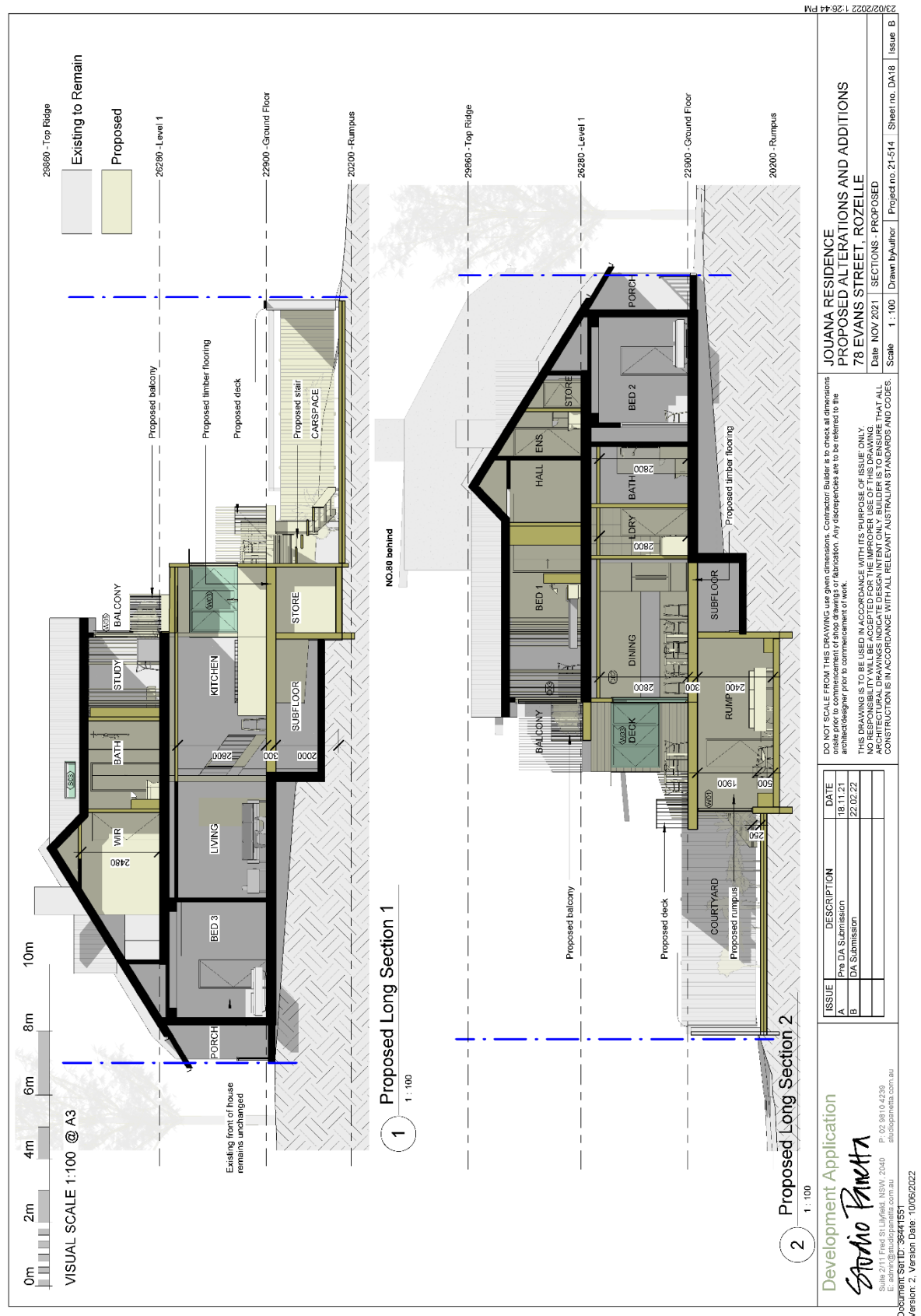


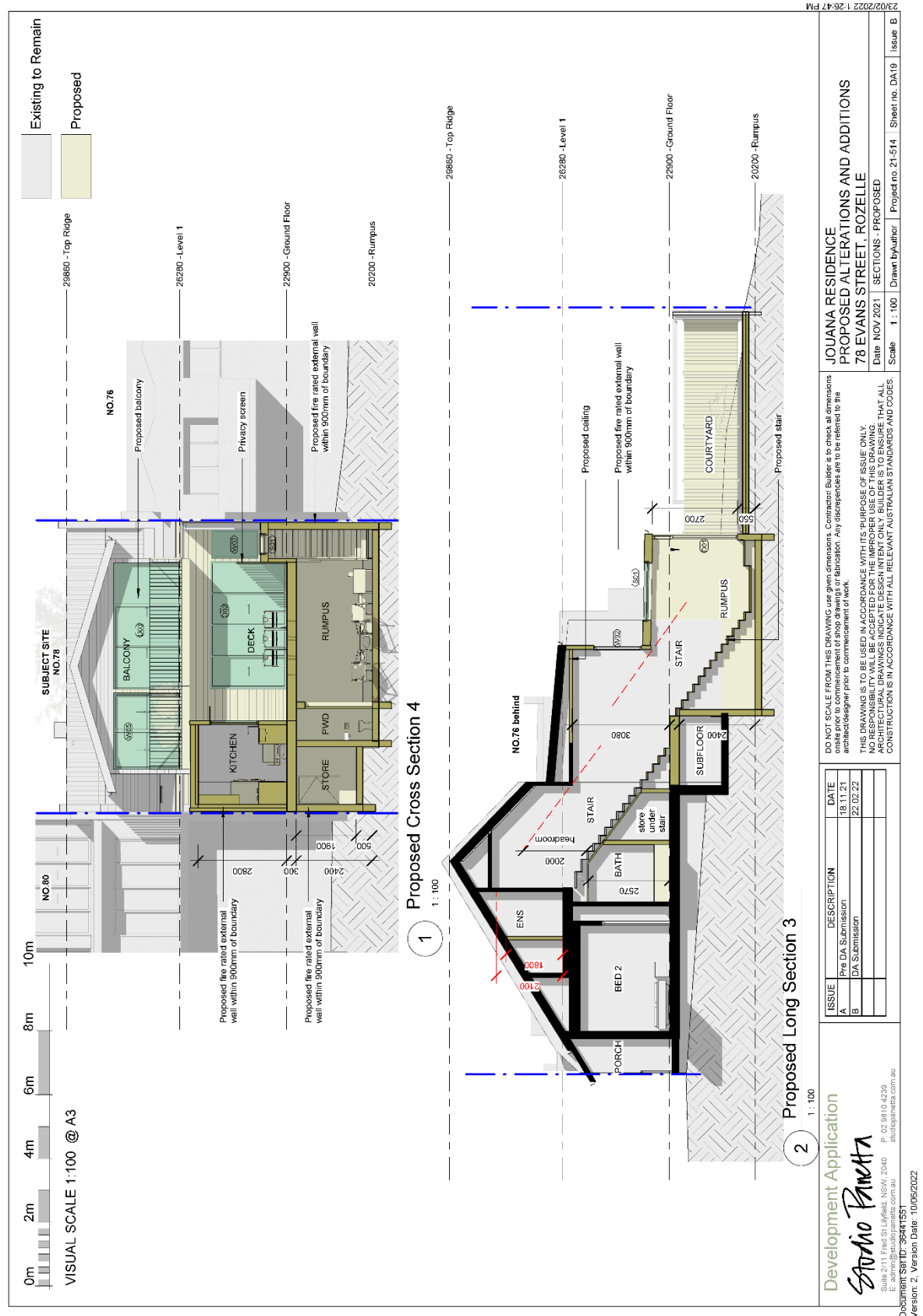


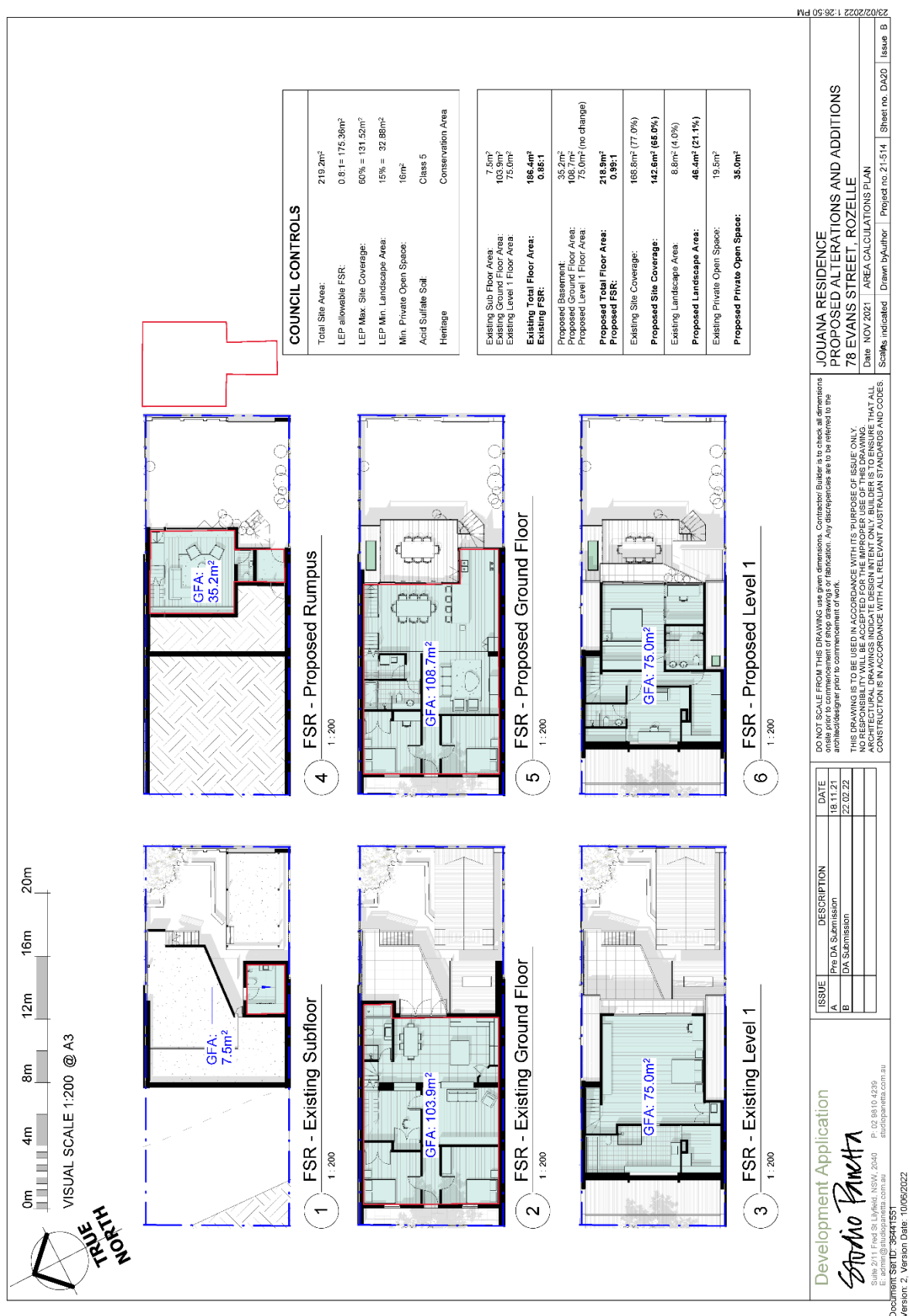


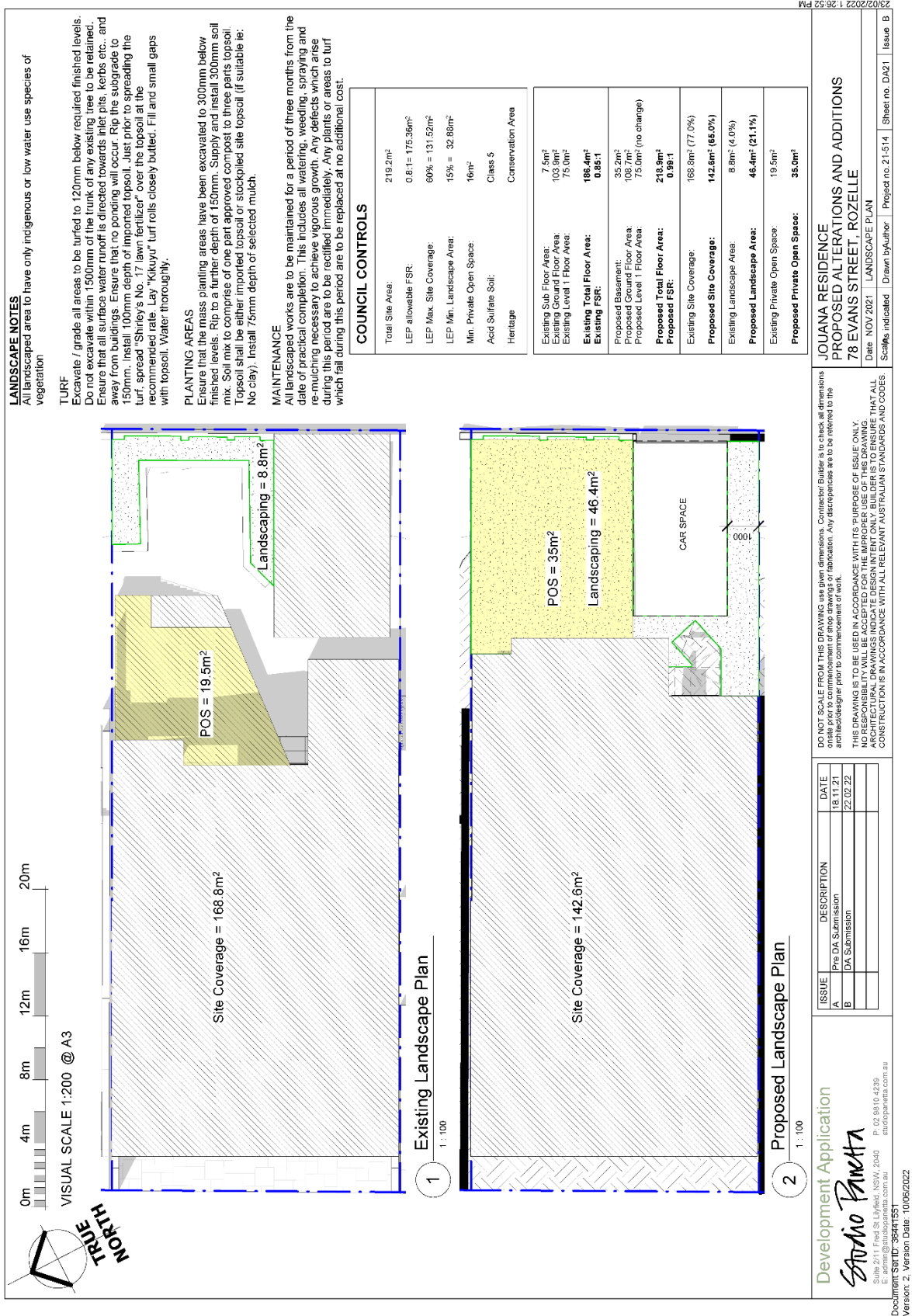


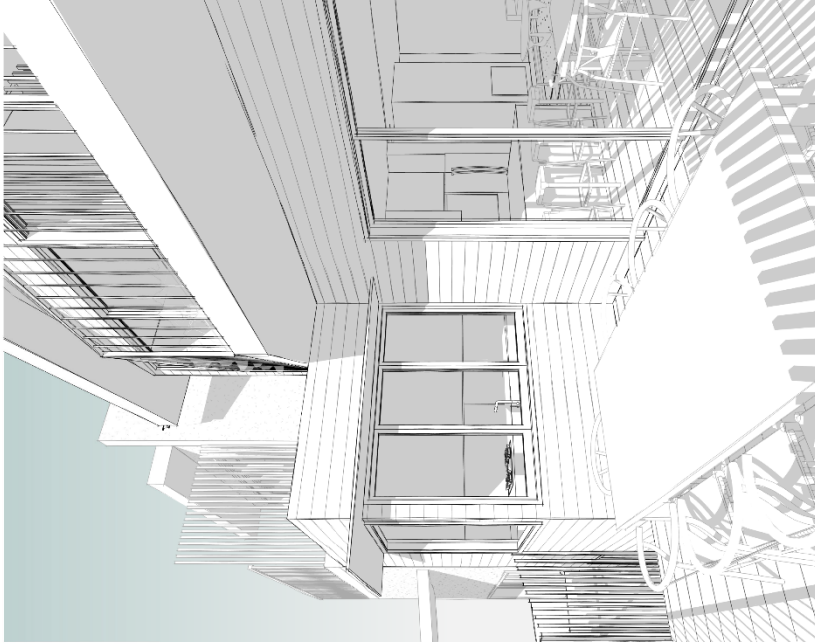












Rear Facade

Outdoor Deck

Development Application

*Studio Panetta*

Suite 2/11 Fred St Lilyfield, NSW 2040

E: admin@studiopanetta.com.au

P: 02 9810 4239

studiopanetta.com.au

ISSUE	DESCRIPTION	DATE
A	Pre DA Submission	18.11.21
B	DA Submission	22.02.22

DO NOT SCALE FROM THIS DRAWING as given dimensions create prior to commencement of shop drawing or fabrication. Any discrepancies are to be referred to the architect/designer prior to commencement of work.

THIS DRAWING IS TO BE USED IN ACCORDANCE WITH ITS PURPOSE OF ISSUE ONLY. NO RESPONSIBILITY WILL BE ACCEPTED FOR THE IMPROPER USE OF THIS DRAWING. ARCHITECTURAL DRAWINGS INDICATE DESIGN INTENT ONLY. BUILDER IS TO ENSURE THAT ALL CONSTRUCTION IS IN ACCORDANCE WITH ALL RELEVANT AUSTRALIAN STANDARDS AND CODES.

JOUANA RESIDENCE  
PROPOSED ALTERATIONS AND ADDITIONS  
78 EVANS STREET, ROZELLE

Date NOV 2021

Scale

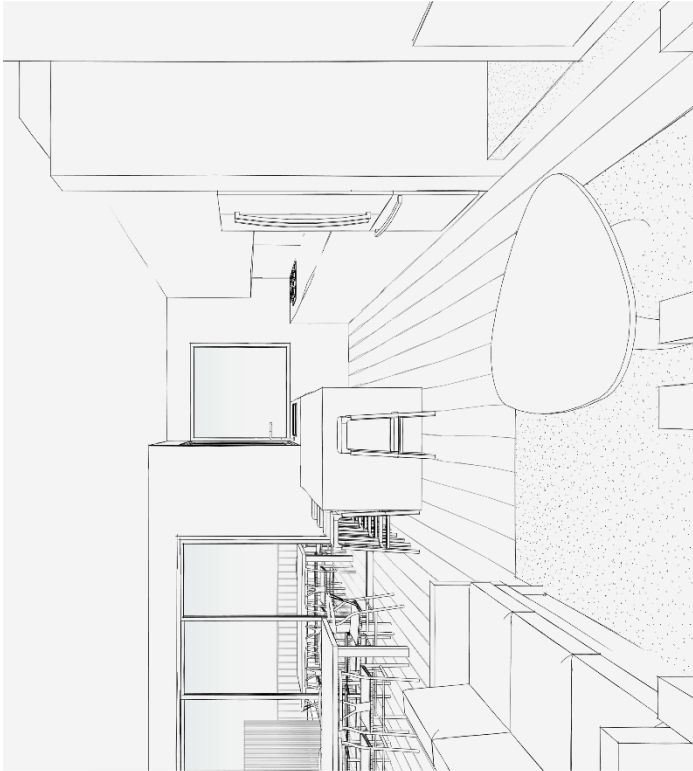
Drawn by Author

Project no. 21-514

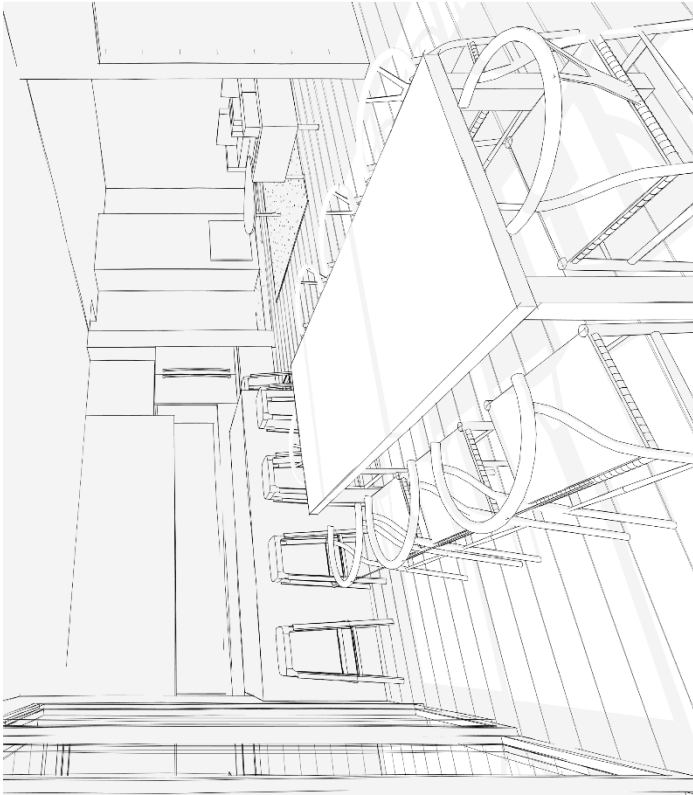
Sheet no. DA22

Issue B






Living



Dining

Development Application



Sulla 2/11 Fred St Lilyfield, NSW 2040  
E: admin@studiopanetta.com.au P: 02 9810 4239  
studiopanetta.com.au

ISSUE	DESCRIPTION	DATE
A	Pre DA Submission	18.11.21
B	DA Submission	22.02.22

DO NOT SCALE FROM THIS DRAWING as given dimensions create prior to commencement of shop drawings or fabrication. Any discrepancies are to be referred to the architect/designer prior to commencement of work.

THIS DRAWING IS TO BE USED IN ACCORDANCE WITH ITS PURPOSE OF ISSUE ONLY. NO RESPONSIBILITY WILL BE ACCEPTED FOR THE IMPROPER USE OF THIS DRAWING. ARCHITECTURAL DRAWINGS INDICATE DESIGN INTENT ONLY. BUILDER IS TO ENSURE THAT ALL CONSTRUCTION IS IN ACCORDANCE WITH ALL RELEVANT AUSTRALIAN STANDARDS AND CODES.

JOUANA RESIDENCE  
PROPOSED ALTERATIONS AND ADDITIONS  
78 EVANS STREET, ROZELLE

Date NOV 2021 | PERSPECTIVES

Scale

Drawn by Author | Project no. 21-514 | Sheet no. DA23 | Issue B

23/02/2022 1:27:03 PM

PAGE 309



Rumpus

New Stair to Rumpus

Development Application

Studio Panetta

Suite 2/11 Fred St Lilyfield, NSW 2040

E: admin@studiopanetta.com.au

P: 02 9410 4239

studiopanetta.com.au

ISSUE	DESCRIPTION	DATE
A	Pre DA Submission	18.11.21
B	DA Submission	22.02.22

JOUANA RESIDENCE

PROPOSED ALTERATIONS AND ADDITIONS

78 EVANS STREET, ROZELLE

Date NOV 2021

Scale

Drawn by Author

Project no. 21-514

Sheet no. DA24

Issue B

DO NOT SCALE FROM THIS DRAWING as given dimensions include prior to commencement of shop drawings or fabrication. Any discrepancies are to be referred to the architect/designer prior to commencement of work.

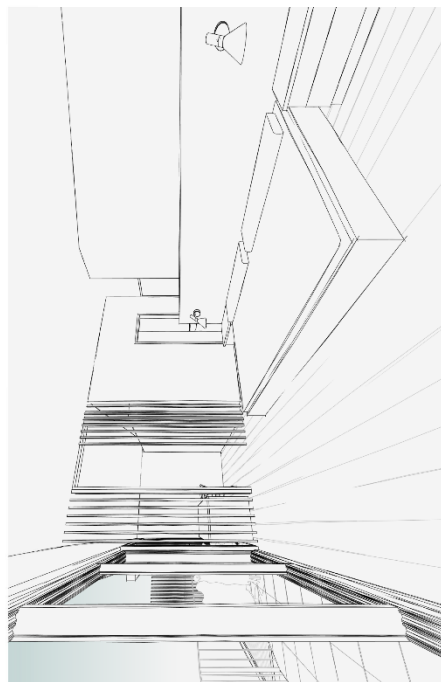
THIS DRAWING IS TO BE USED IN ACCORDANCE WITH ITS PURPOSE OF ISSUE ONLY. NO RESPONSIBILITY WILL BE ACCEPTED FOR THE IMPROPER USE OF THIS DRAWING. ARCHITECTURAL DRAWINGS INDICATE DESIGN INTENT ONLY. BUILDER IS TO ENSURE THAT ALL CONSTRUCTION IS IN ACCORDANCE WITH ALL RELEVANT AUSTRALIAN STANDARDS AND CODES.

PAGE 310





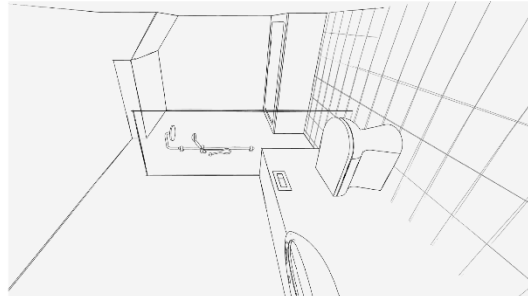
Bed 1 - View towards Balcony



Bed 1



Bed 4 / Study



GF Bath

ISSUE	DESCRIPTION	DATE
A	Pre DA Submission	18.11.21
B	DA Submission	22.02.22

## Development Application

Studio Pinetta

Suite 2/11 Fred St Lilyfield, NSW, 2040  
E: [admin@studiopanelta.com.au](mailto:admin@studiopanelta.com.au)  
P: 02 9810 4239  
[studiopanelta.com.au](http://studiopanelta.com.au)

ment Set ID: 36441551

E: [admin@studiopanella.com.au](mailto:admin@studiopanella.com.au)  
Document Set ID: 36441551  
Version: 2; Version Date: 10/06/2022

Document Set ID: 36441331  
Version: 2; Version Date: 10/06/2022

DO NOT SCALE FROM THIS DRAWING use given dimensions. Contractor/ Builder is to check all dimensions onsite prior to commencement of shop drawings or fabrication. Any discrepancies are to be referred to the architect/designer prior to commencement of work

THIS DRAWING IS TO BE USED IN ACCORDANCE WITH ITS 'PURPOSE OF ISSUE' ONLY. NO RESPONSIBILITY WILL BE ACCEPTED FOR THE IMPROPER USE OF THIS DRAWING.

NO RESPONSIBILITY WILL BE ACCEPTED FOR THE IMPROPER USE OF THIS DRAWING.  
ARCHITECTURAL DRAWINGS INDICATE DESIGN INTENT ONLY. BUILDER IS TO ENSURE THAT ALL  
CONSTRUCTION IS IN ACCORDANCE WITH ALL RELEVANT AUSTRALIAN STANDARDS AND CODES.

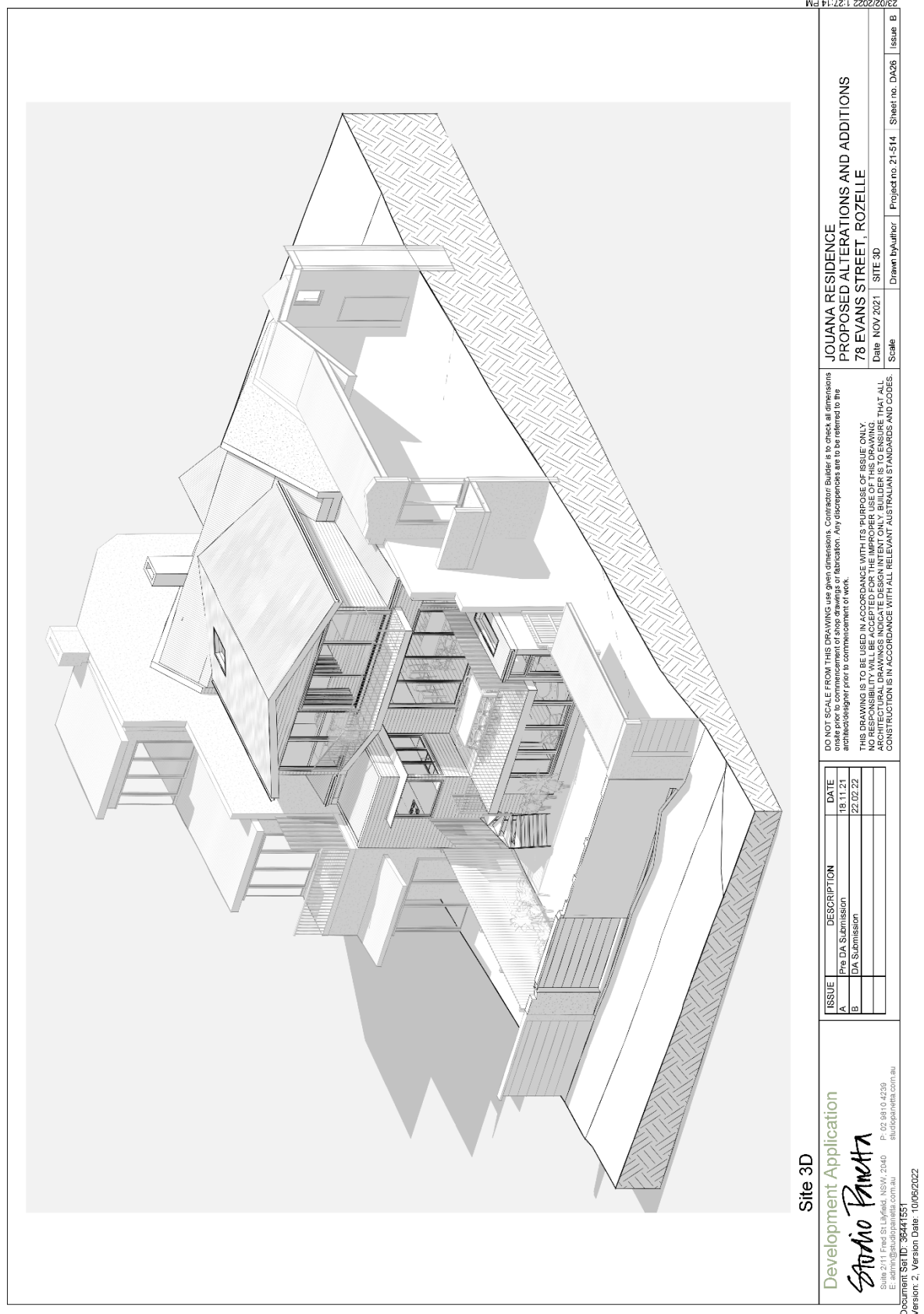
JOUANA RESIDENCE  
PROPOSED ALTERATIONS AND ADDITIONS  
78 EVANS STREET, ROZELLE

Date	NOV 2021	PERSPECTIVES
------	----------	--------------

Scale	Drawn by Author	File
-------	-----------------	------

Project no. 21-514	Sheet no. DA25
--------------------	----------------

Issue B



**Development Application**

**SUDIO PANELOTTA**

Sudio Panetta Pty Ltd  
Suite 2/11 First St Lilyfield NSW 2040  
E: admin@sudiopanetta.com.au P: 02 8610 4239  
www.sudiopanetta.com.au

Document Set ID: 38441551  
Version 2, Version Date: 10/05/2022

ISSUE	DESCRIPTION	DATE
B	DA Submission	22/02/22

DO NOT SCALE FROM THIS DRAWING use given dimensions. Contractor/Builder is to check all dimensions against the actual site conditions prior to commencement of work.

THIS DRAWING IS TO BE USED IN ACCORDANCE WITH ITS PURPOSE OF ISSUE ONLY.  
NO RESPONSIBILITY WILL BE ACCEPTED FOR THE IMPROPER USE OF THIS DRAWING.  
ARCHITECTURAL DRAWINGS INDICATE DESIGN INTENT ONLY. BUILDER IS TO ENSURE THAT ALL CONSTRUCTION IS IN ACCORDANCE WITH ALL RELEVANT AUSTRALIAN STANDARDS AND CODES.

JOUANA RESIDENCE  
PROPOSED ALTERATIONS AND ADDITIONS  
78 EVANS STREET, ROZELLE  
Date NOV 2021 | MATERIALS AND FINISHES  
Scale 1 : 100 Drawn by: author Project no. 21-514 Sheet no. DA27 Issue B

**Proposed Finishes - North East Elevation**

1:100

**Proposed Finishes - South West Elevation**

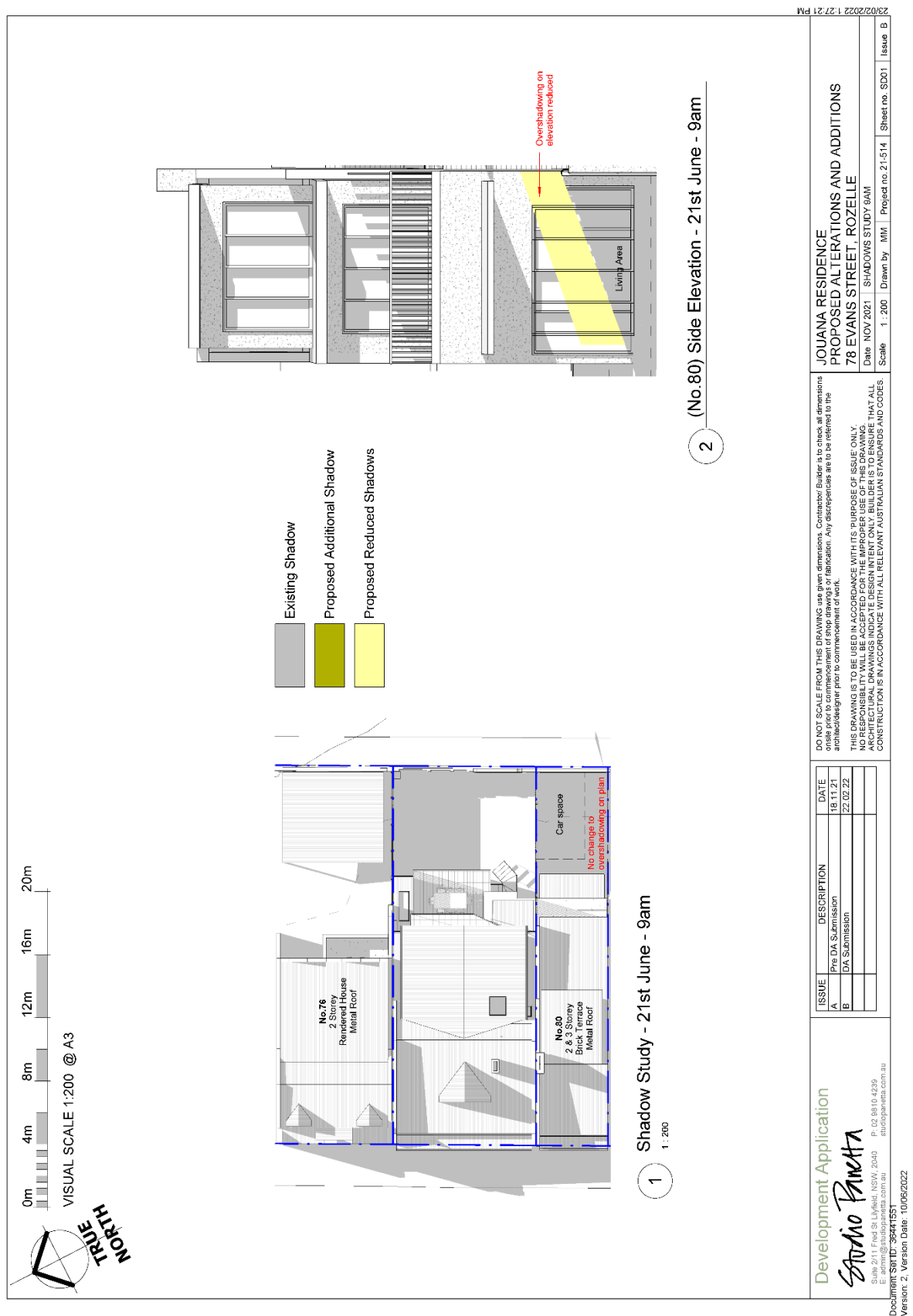
1:100

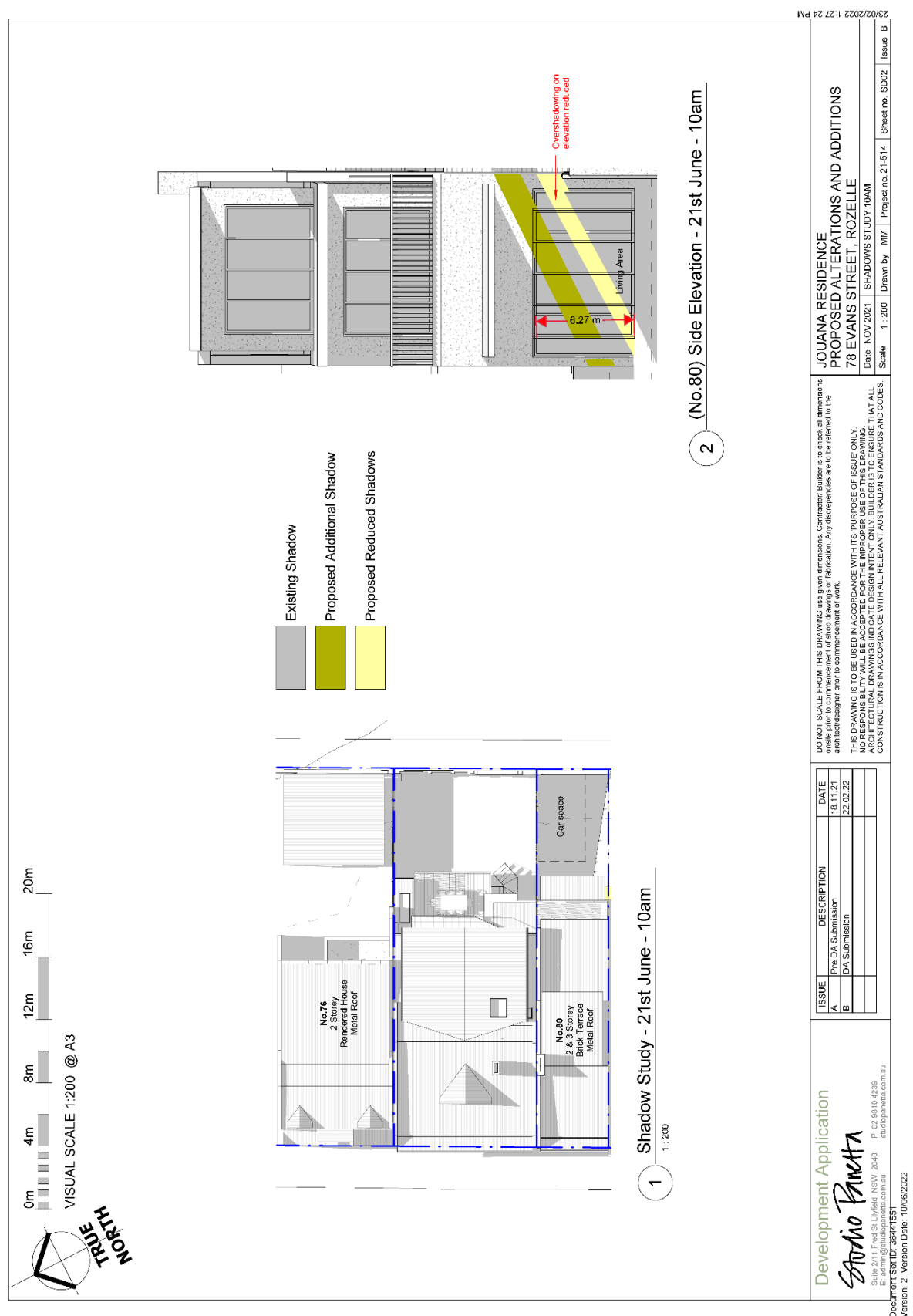
**Proposed Finishes - South East Elevation**

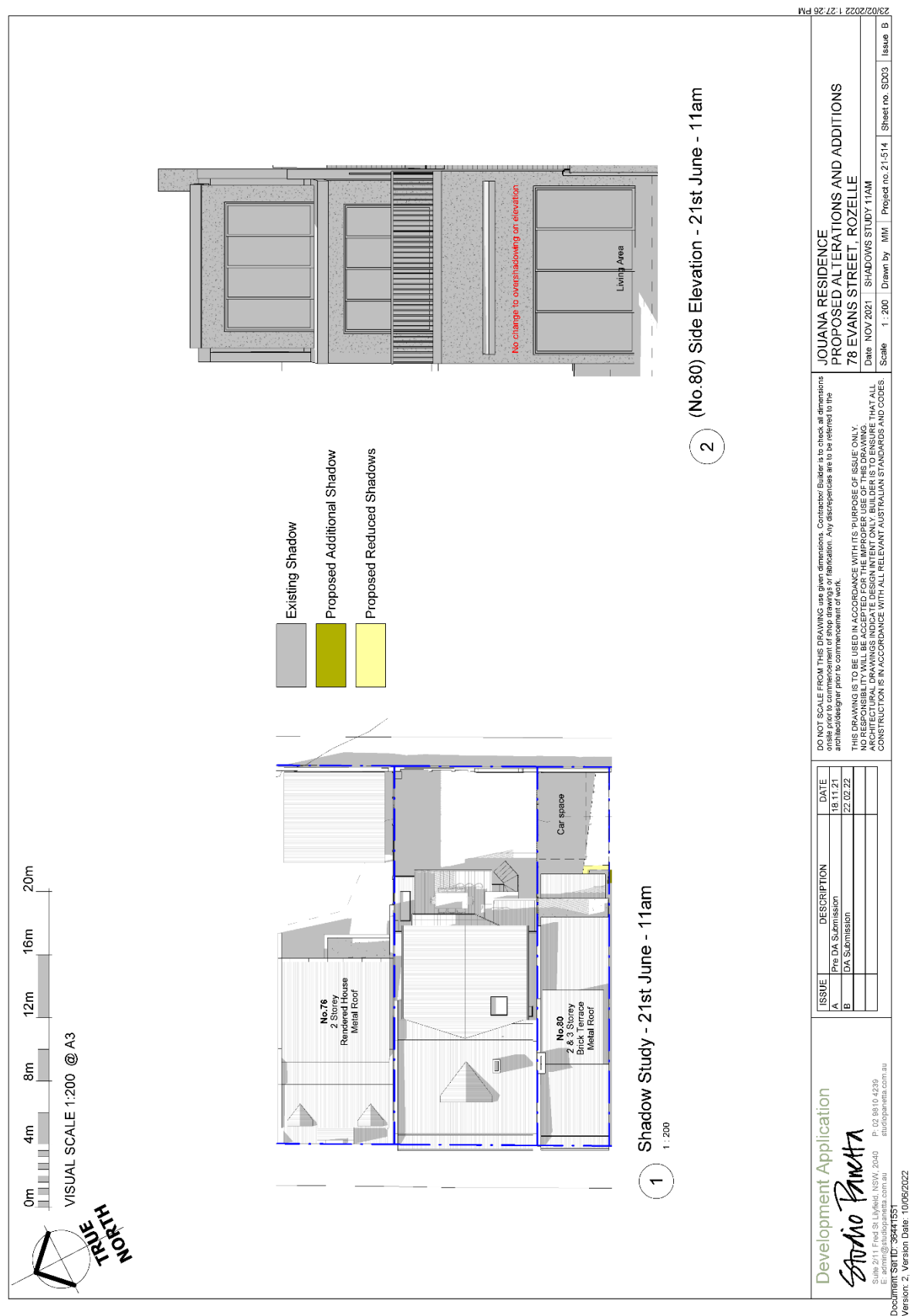
1:100

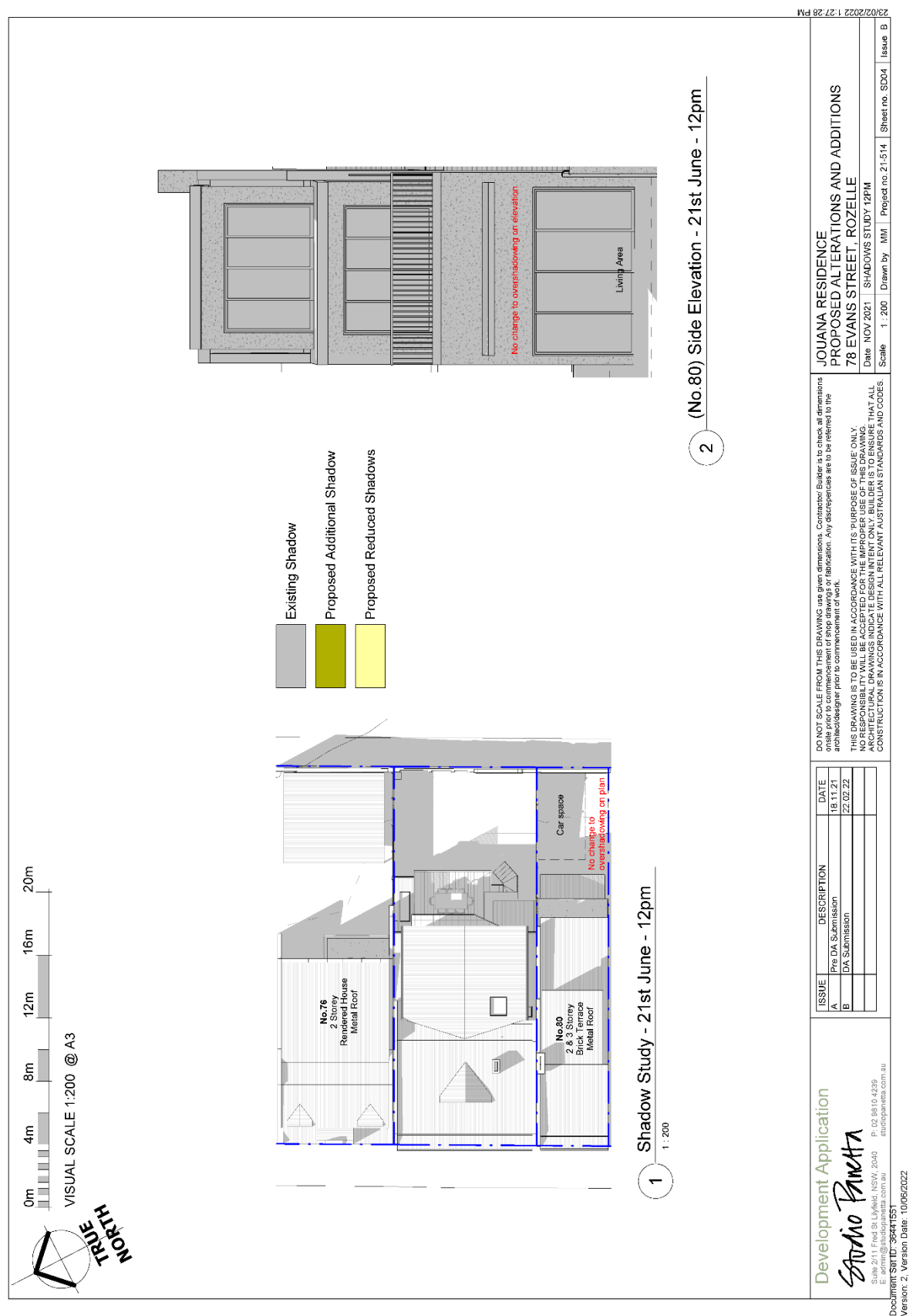
**Legend:**

- 1 Duux Terrace White (All new walls)
- 2 Duux Lexicon Quarter (New aluminium windows & doors, awning)
- 3 Timber Battens (Privacy Screen)
- 4 Monument (Steel Balustrade)

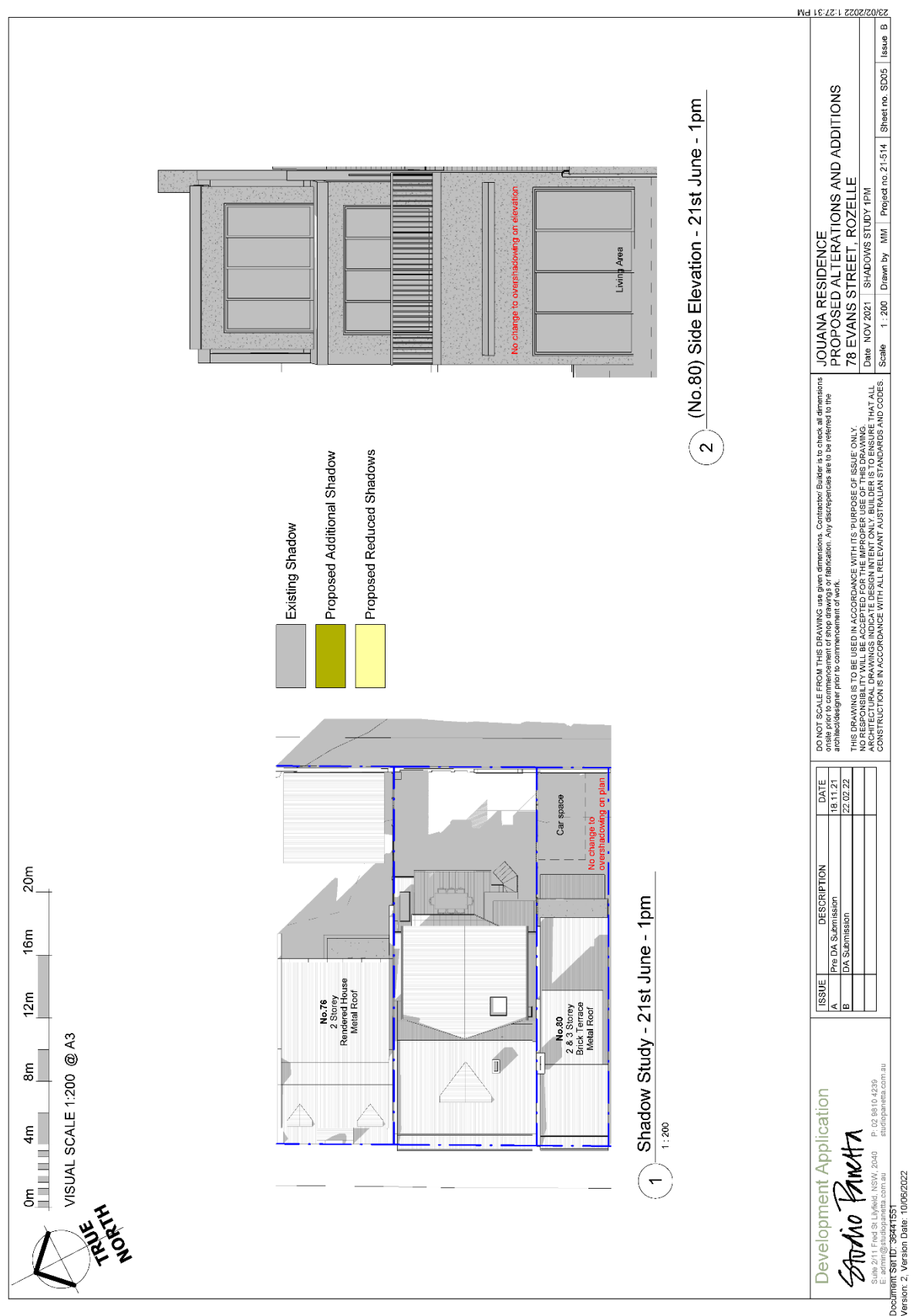


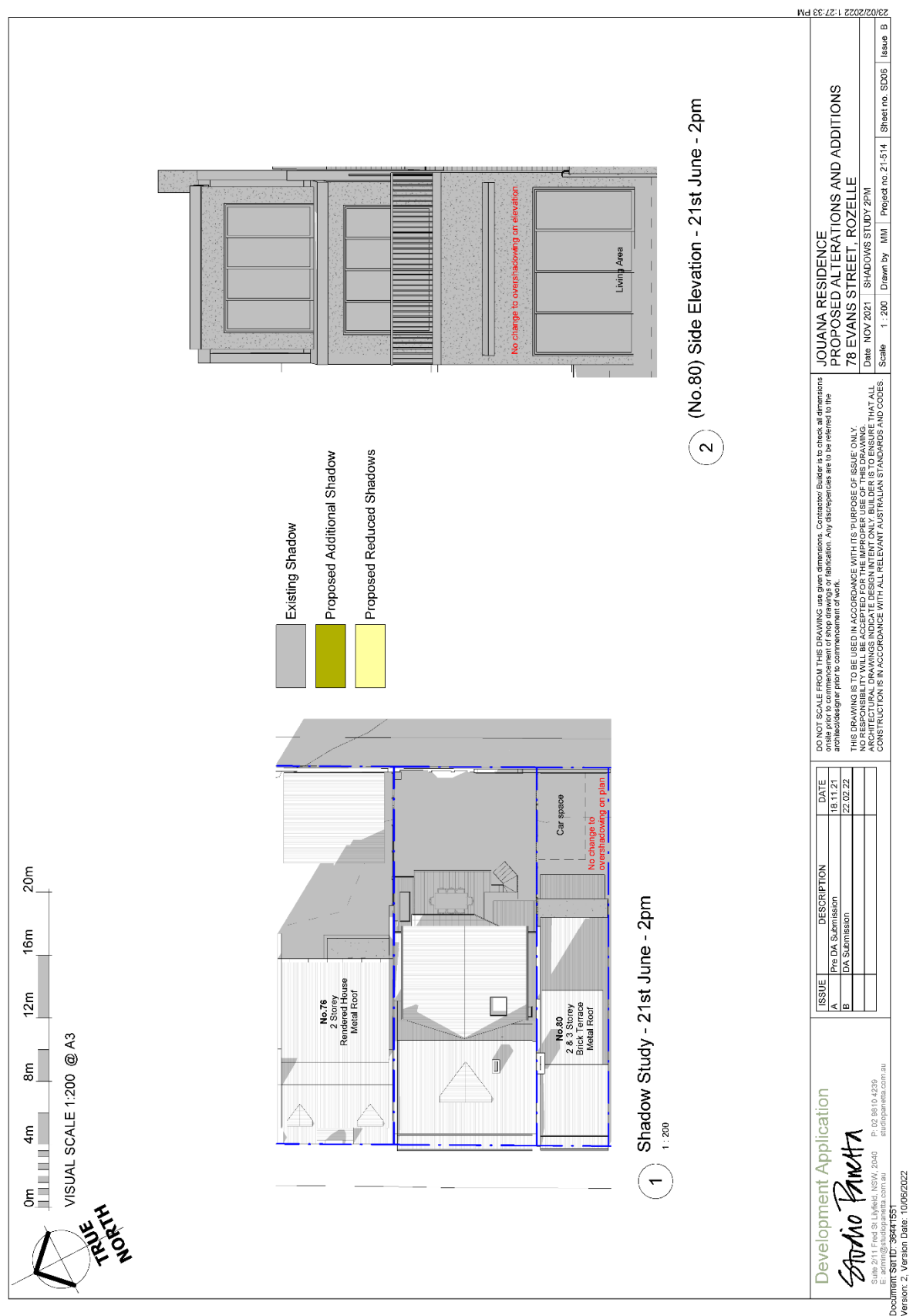


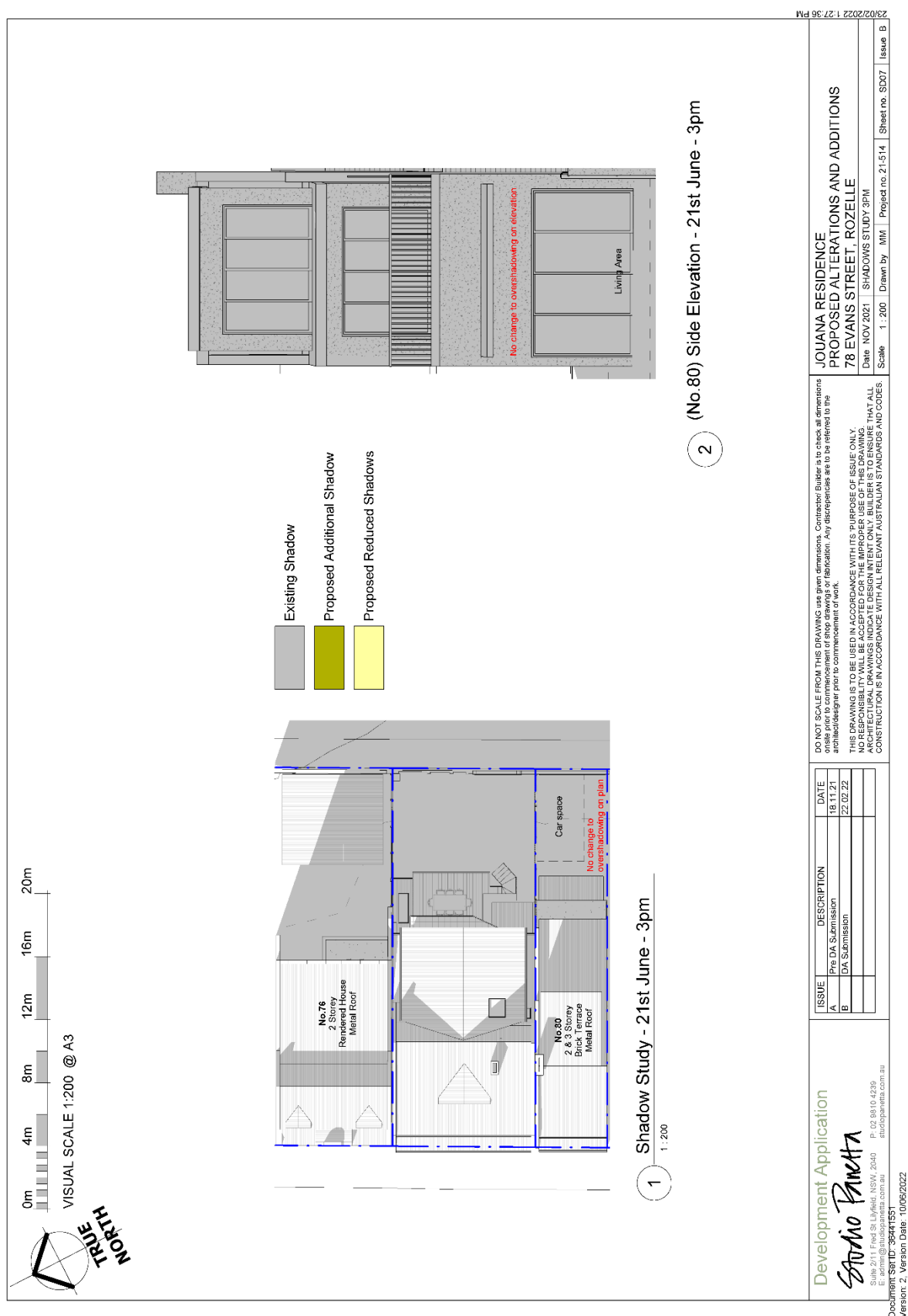


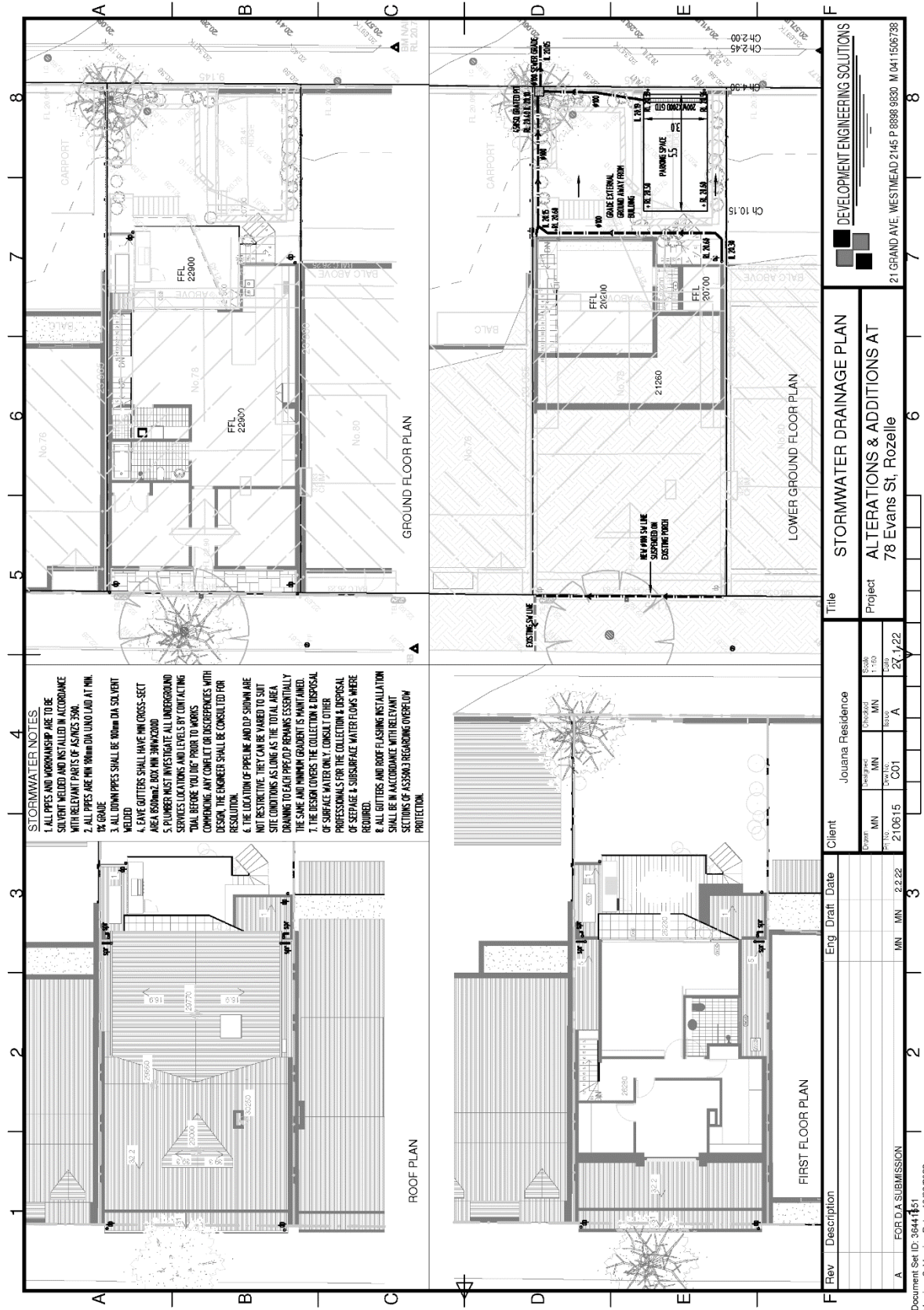


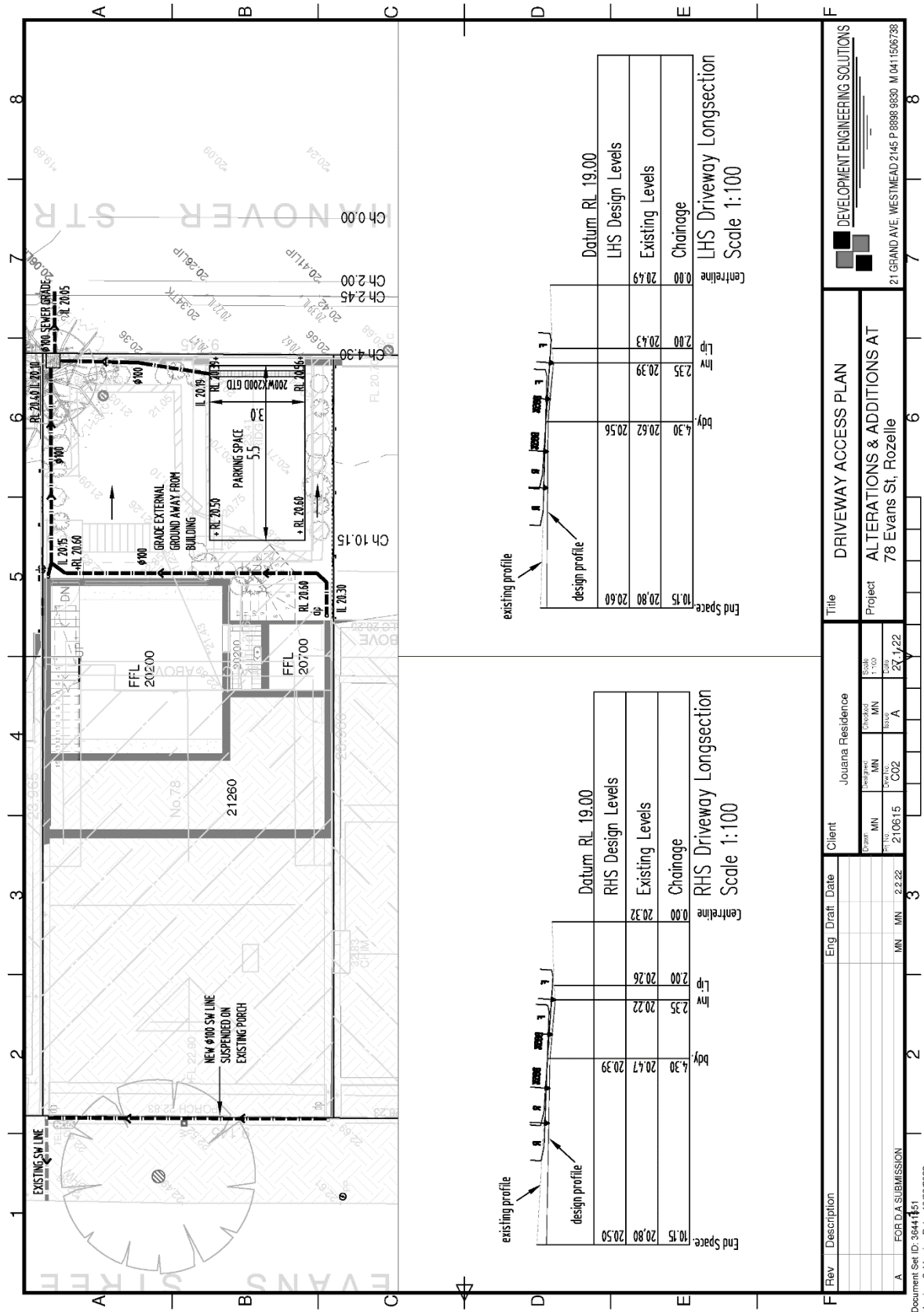












## Attachment C- Clause 4.6 Exception to Development Standards

The logo for Studio Panetta, featuring the name in a stylized, handwritten green font.

Suite 2/11 Fred St Lilyfield, NSW, 2040

P: 02 9810 4239

E: admin@studiopanetta.com.au

studiopanetta.com.au

NSW Registered Architect No.7466

# DEVELOPMENT APPLICATION EXCEPTION TO DEVELOPMENT STANDARDS

Pursuant to clause 4.6 of Leichhardt Local Environmental  
Plan 2013 – Site Coverage – Clause 4.3A.3b of LEP 2013

for

**78 Evans Street,  
Rozelle**

Prepared For

**INNER WEST  
COUNCIL  
(LEICHHARDT)**  
(Development Application)

Prepared by

**Studio Panetta**

Nominated Architect: Raymond Panetta

ARAIA BA(Arch)BArchitecture(Hons) Reg. No. 7466

Architects

Interiors

Document Set ID: 36441550

Version: 1, Version Date: 10/06/2022



Suite 2/11 Fred St Lilyfield, NSW, 2040

P: 02 9810 4239

E: admin@studiopanetta.com.au

studiopanetta.com.au

NSW Registered Architect No.7466

**Proposed development:**

Proposed alterations and additions to existing residence.

We wish to lodge an objection to the following development standard for the reasons indicated:

- **Site Coverage – Clause 4.3A of LEP 2013**

The purpose of the above standards is:

- (a) to provide landscaped areas that are suitable for substantial tree planting and for the use and enjoyment of residents,
- (b) to maintain and encourage a landscaped corridor between adjoining properties,
- (c) to ensure that development promotes the desired future character of the neighbourhood,
- (d) to encourage ecologically sustainable development by maximising the retention and absorption of surface drainage water on site and by minimising obstruction to the underground flow of water,
- (e) to control site density,
- (f) to limit building footprints to ensure that adequate provision is made for landscaped areas and private open space.

Where an applicant wishes to vary a development standard, the application must be accompanied by a well-founded, written objection which demonstrates:

- (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

***What are the environmental planning grounds that justify contravening the development standard?***

The existing site coverage (77%) has exceeded the allowable maximum 60%. The aim of this proposal is to create a more habitable and integrated living space for a growing family. The existing layout has a small living, kitchen and dining area, with a detached laundry below ground floor separated by an outdoor deck.

Addressing this issue, the proposal aims to re-configure the ground floor layout, provide a slightly larger living, kitchen and dining area retaining the connection to the outdoor deck. The external laundry will be relocated internally. The existing sub-floor will be enclosed partially and be converted to a rumpus.

The proposal aims to reduce the existing terrace deck BLZ and increase the landscaped area. This approach reduces the building footprint by 26.2 sqm and

Architects

Interiors

Document Set ID: 36441550  
Version: 1, Version Date: 10/06/2022





Suite 2/11 Fred St Lilyfield, NSW, 2040

P: 02 9810 4239

E: admin@studiopanetta.com.au

studiopanetta.com.au

NSW Registered Architect No.7466

result in 65% site coverage. The reduction in site coverage will create a significant improvement in the internal quality of the space. The proposal, at the same time, will increase the landscape area in the rear courtyard, achieving the minimum required landscaped area under the LEP.

In designing a development that compares to the neighbouring properties, the quality of the site and the immediate surroundings is considered acceptable to meet the objectives of the LEP.

The existing site coverage of surrounding buildings and the proposal is in keeping with the area.

In designing a development that compares to the neighbouring buildings, the quality of the site, and the immediate surroundings is improved.

The proposal carefully considers all aspects of the LEP & DCP and the design solution will fit comfortably within its surroundings.

The proposal does not involve the removal of trees and is suitable for the use and enjoyment of residents. Site density and building footprint are acceptable.

The proposal has been designed to preserve the character of the surrounding area.

Amenity to the site will not be compromised.

***Why is compliance with the standard unreasonable or unnecessary? What are the special circumstances in this case?***

Compliance with the standard is unreasonable as the existing site coverage has already exceeded the allowable maximum 60% site coverage.

The proposed site coverage is in keeping with the surrounding area. A majority of the existing site coverage at the rear of the property derives from the existing terrace deck. The proposal aims to reduce the existing deck BLZ and increase the landscaped area, which results in reduction in building bulk and scale.

It is unreasonable to comply with the standard as this would require further reducing the proposal to site coverage smaller than the existing site coverage as well as the average in the area.

***Is the proposal consistent with the objectives of the relevant development standard? Is the proposal consistent with the objectives of the relevant zone?***

Architects

Interiors

Document Set ID: 36441550  
Version: 1, Version Date: 10/06/2022



Suite 2/11 Fred St Lilyfield, NSW, 2040

P: 02 9810 4239

E: admin@studiopanetta.com.au

studiopanetta.com.au

NSW Registered Architect No.7466

The proposal is consistent with objectives of Clause 4.3A of LEP 2013 relating to site coverage of 60% as the development proposal, with a site coverage of 65%, is sympathetic to the surrounding area as well as addressing the following:

- (a) to provide landscaped areas that are suitable for substantial tree planting and for the use and enjoyment of residents,
- (b) to maintain and encourage a landscaped corridor between adjoining properties,
- (c) to ensure that development promotes the desired future character of the neighbourhood

Site Coverage has been calculated based on architectural DA drawings.

Site Area	219.2 sqm	
Existing Site Coverage	168.8 sqm	(77%)
Proposed Site Coverage	142.6 sqm	(65%)
Net change in Site Coverage	26.2 sqm reduction	( 12%)

With a maximum allowable site coverage of 60%, the proposal has a non-compliance of 11.08 sqm (5%), however this is considered satisfactory as the built form is sympathetic to the surrounding area, site coverage is compatible with the adjoining properties & has minimal impact on the amenity of the neighbouring properties, including privacy & solar access.

Architects

Interiors

Document Set ID: 36441550

Version: 1, Version Date: 10/06/2022



Suite 2/11 Fred St Lilyfield, NSW, 2040

P: 02 9810 4239

E: admin@studiopanetta.com.au

studiopanetta.com.au

NSW Registered Architect No.7466

# DEVELOPMENT APPLICATION EXCEPTION TO DEVELOPMENT STANDARDS

Pursuant to clause 4.6 of Leichhardt Local Environmental  
Plan 2013 – Floor Space Ratio – Clause 4.4 of LEP 2013

for

**78 Evans Street,  
Rozelle**

Prepared For

**INNER WEST  
COUNCIL  
(LEICHHARDT)**  
(Development Application)

Prepared by

**Studio Panetta**

Nominated Architect: Raymond Panetta

ARAIA BA(Arch)BArchitecture(Hons) Reg. No. 7466

Architects

Interiors

Document Set ID: 36441550

Version: 1, Version Date: 10/06/2022



Suite 2/11 Fred St Lilyfield, NSW, 2040

P: 02 9810 4239

E: admin@studiopanetta.com.au

studiopanetta.com.au

NSW Registered Architect No.7466

**Proposed development:**

Proposed alterations and additions to existing residence.

We wish to lodge an objection to the following development standard for the reasons indicated:

- **Floor Space Ratio – Clause 4.4 of LEP 2013**

The purpose of the above standards is:

- (a) to ensure that residential accommodation:
  - (i) is compatible with the desired future character of the area in relation to building bulk, form and scale, and
  - (ii) provides a suitable balance between landscaped areas and the built form, and
  - (iii) minimises the impact of the bulk and scale of buildings,
- (b) to ensure that non-residential development is compatible with the desired future character of the area in relation to building bulk, form and scale.

Where an applicant wishes to vary a development standard, the application must be accompanied by a well-founded, written objection which demonstrates:

- (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

***What are the environmental planning grounds that justify contravening the development standard?***

The existing FSR of existing building is over the allowable 0.8:1 and the proposal is in keeping with the area.

In designing a development that compares to the neighbouring buildings, the quality of the site, and the immediate surroundings is improved.

The proposal carefully considers all aspects of the LEP & DCP and the design solution will fit comfortably within its surroundings.

The proposed FSR of the area is compatible with the adjoining properties.

The proposal will have acceptable impacts on the streetscape. The form, bulk & scale are considered satisfactory.

The proposal has been designed to preserve the character of the surrounding area.

Architects

Interiors



Suite 2/11 Fred St Lilyfield, NSW, 2040

P: 02 9810 4239

E: admin@studiopanetta.com.au

studiopanetta.com.au

NSW Registered Architect No.7466

Amenity impacts on neighbours in terms of solar access, privacy, bulk & scale are minimal & considered satisfactory.

Amenity to the site will not be compromised.

***Why is compliance with the standard unreasonable or unnecessary? What are the special circumstances in this case?***

Compliance with the standard is unreasonable as the existing building has an FSR of 0.85:1 which is over the allowable maximum 0.8:1.

The proposed additions have a minimal non-compliance to FSR. The proposed rumpus has a floor area of 35.2 sqm which is the cause for the non-compliance. The proposed rumpus will be located below the deck, and merely replacing the existing sub-floor area below the terrace deck. The proposal has carefully considered the position of the rumpus create no additional bulk and scale or privacy concerns to the neighbouring properties. The proposal is compliant with landscaped area.

Amending the proposal to comply with FSR controls would require deletion of the rumpus. It is unreasonable to comply with the standard as this would require reducing the proposal to an FSR lower than the existing FSR.

***Is the proposal consistent with the objectives of the relevant development standard? Is the proposal consistent with the objectives of the relevant zone?***

We note that FSR has been discussed with the Planner during the Pre-DA meeting, however it has not been written in the Pre-DA minute the discussion point that the proposal is potentially acceptable on the grounds that there is no increase in building bulk and scale.

It should be noted the proposal complies with the objectives of the FSR controls and the inclusion of the rumpus will have no impact and is consistent with objectives of Clause 4.4 of LEP 2013 relating to an FSR of 0.8:1 as the development proposal, with an FSR of 0.99:1, is sympathetic to the surrounding area as well as addressing the following:

- (a) to ensure that residential accommodation:
  - i. is compatible with the desired future character of the area in relation to building bulk, form and scale, and
  - ii. provides a suitable balance between landscaped areas and the built form, and
  - iii. minimises the impact of the bulk and scale of buildings

Architects

Interiors



Suite 2/11 Fred St Lilyfield, NSW, 2040

P: 02 9810 4239

E: admin@studiopanetta.com.au

studiopanetta.com.au

NSW Registered Architect No.7466

FSR has been calculated based on architectural DA drawings.

Site Area	219.2 sqm
Existing Floor Area	186.4 sqm
Existing FSR	0.85:1
Proposed Floor Area	218.9 sqm
Proposed FSR	0.99:1

With an allowable FSR of 0.8:1, the proposal has a non compliance of 43.5 sqm (0.99:1), however this is considered satisfactory as the built form is sympathetic to the surrounding area. FSR is compatible with the adjoining properties & has minimal impact on the amenity of the neighbouring properties, including privacy & solar access. Site coverage and building bulk & scale has been reduced, there is an improvement to neighbour's solar access. Landscaped area has been greatly improved. There will be no impact to the streetscape since the rumpus addition is not visible from the street.

Architects

Interiors

Document Set ID: 36441550  
Version: 1, Version Date: 10/06/2022

## Attachment D – Arboricultural Impact Assessment Report





## ARBORICULTURAL IMPACT ASSESSMENT (AIA) REPORT

Prepared For:	Andrew & Rebecca Jouana
Site Address:	78 Evans Street, Rozelle
Inspection Date:	18 January 2022
Report Date:	21 January 2022



*Image 1: The property as viewed from Hanover Street frontage.*

Prepared by Margot Blues  
Diploma (Arboriculture) AQF 5  
0414991122





AIA REPORT  
78 EVANS STREET ROZELLE

ASSESSED 18 JANUARY 2022  
REPORT DATE: 21 JANUARY 2022

## 1 Executive Summary

- 1.1.1 Margot Blues Consulting Arborist has been engaged by the owners to inspect and report on one tree located close to the rear boundary for development purposes. The tree species *Radermachera sinica* (China Doll; Serpent Tree) was mature, in good health and fair condition.
- 1.1.2 Proposed alterations are to occur throughout the site inclusive of lowering the rear courtyard level impacting the tree.
- 1.1.3 In reviewing the supplied architectural plans, the following recommendations resulted:-
- Based on the proposal the single tree located within the property is not retainable :

High Retention	Moderate Retention	Low Retention	Exempt Species
		T1	

- 1.1.4 Protruding into property No 78 Evans St and originating from 76 Evans St, is a small section of an enlarged woody stem – *Dracena* like species. It is anticipated a small retaining will be required given the proposed excavation. Slight modifications to the proposal may be required.



AIA REPORT  
78 EVANS STREET ROZELLE

ASSESSED 18 JANUARY 2022  
REPORT DATE: 21 JANUARY 2022

## 1 Table of Contents

1	EXECUTIVE SUMMARY .....	II
2	INTRODUCTION .....	1
2.1	BACKGROUND .....	1
3	METHODOLOGY .....	2
4	RESULTS .....	3
4.1	DESKTOP RESEARCH .....	3
4.2	THE SITE .....	3
4.3	THE TREE .....	3
4.4	THE DEVELOPMENT: PROPOSED EXCAVATION AND CONSTRUCTION IMPACT .....	4
5	CONCLUSION & RECOMMENDATION .....	4
	APPENDIX 1 - TREE IDENTIFICATION AND INCURSION POTENTIALS .....	5
	APPENDIX 2 – PHOTOGRAPHS .....	7



AIA REPORT  
78 EVANS STREET ROZELLE

ASSESSED 18 JANUARY 2022  
REPORT DATE: 21 JANUARY 2022

## 2 Introduction

### 2.1 Background

- 2.1.1 The owners have commissioned this report for development application lodgement.
- 2.1.2 The report's aim was to:
- Conduct a visual assessment of the tree protected in accordance with Inner West Council policy.
  - Determine the construction impact to trees as per the Australian Standard AS4970:2009 *Protection of trees on development sites*.
  - Categorise the trees into retention priority (High/Medium/Low Retention value).
- 2.1.3 Extensive alterations are proposed throughout the property inclusive of demolition of the rear half of the property.
- 2.1.4 Information supplied and relied upon for the preparation of this report include:
- Architectural suite of plans by Raymond Panetta Architect; Issue A, Dated 18/11/21.
  - NSW Planning Portal property report;
  - Survey by Benchmark Surveys NSW Pty Ltd and dated 4/8/2021.
  - Published directives Inner West Council.
- 2.1.5 As bulk of the work required is at the rear half of the property and with construction access existing at the Hanover St frontage, no construction activities from the Evans Street frontage is anticipated. Therefore the street tree will not require protective fencing.
- 2.1.6 The use of these documents is acknowledged with thanks.



AIA REPORT  
78 EVANS STREET ROZELLE

ASSESSED 18 JANUARY 2022  
REPORT DATE: 21 JANUARY 2022

### 3 Methodology

- 3.1.1 Site attendance occurred on the 18 January 2022. A single tree was located close to the rear boundary and assessed using the Visual Tree Assessment (VTA) methodology derived by Mattheck and Breloer (1994) encompassing the biological and mechanical characteristics as presented.
- Biological assessment included leaves (volume and colour); the presence of pests and diseases, canopy dieback, deadwood and epicormic growth.
  - Tree mechanics included assessment of structural stability, previous pruning and any damage/disturbance which may have occurred.
- 3.1.2 Tree mechanics included assessment of structural stability, previous pruning and any damage/disturbance which may have occurred.
- 3.1.3 No destructive or aerial investigations occurred to any tree.
- 3.1.4 Tree height and canopy width were estimated.
- 3.1.5 Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) have been calculated as per AS4970-2009 *Protection of trees on development sites*. Measurements were achieved with the assistance of a builder's tape measure, diameter tape, and *Leica® Distometer™* (Laser).
- 3.1.6 The supplied survey included a single tree on the site.
- 3.1.7 This report does not include a tree data sheet given only one tree was assessed or a scaled drawing. Appendix 1 shows the trees positioning and proposed finished elevations.
- 3.1.8 Appendix 2: Photographs.
- 3.1.9 This report is considered limited to what could reasonably be seen from ground level and expresses no commentary on changes which may have, or will, impact the trees or their environment outside the scope of works.
- 3.1.10 Tree retention values have been assessed based on the IACA *Significance of a Tree, Assessment Rating System (STARS)* methodology.



## 4 Results

### 4.1 Desktop Research

- 4.1.1 Research from the NSW Planning portal identified the following information for the property:
- Zoning: R1 – General Residential
  - General Conservation Area: The Valley Heritage Conservation Area
  - Significant: Local
- 4.1.2 In accordance with published directives by Inner West Council– A Protected Tree is:
- Having a height of 6 metres or more,
  - Any tree with a trunk diameter or more than 300mm at ground level (existing)
  - Not listed on the *Exempt tree species list* or listed as a weed species.

### 4.2 The Site

- 4.2.1 The site sloped downwards west to east. Vehicular access was via Hanover Street with the existing, small, paved courtyard slightly elevated than the carport floor. At the time of inspection very limited opportunity presented for deep soil planting was seen.

### 4.3 The Tree

- 4.3.1 The single tree *Radermachera sinica* (China Doll; Serpent Tree) was located in the north eastern corner of the property and planted in an elevated garden bed above the existing courtyard level. The tree was bounded by a high, masonry perimeter wall to the east and a lower masonry wall to the north (within neighbouring property No 76 Evans Street).
- 4.3.2 The tree was considered protected as its trunk diameter at ground level (existing) is greater than 300mm (Inner West Tree Management DCP Clause 5). The tree was estimated as having a height of approximately 5 metres.
- 4.3.3 The tree was single trunked to 0.35m then divided into co-dominant branches. Decay was present in the co-dominant union. A constrictive band was present around one of the codominant stems (Photos 1 & 2). Otherwise it presented as being in good health as determined by the high leaf volume present within the canopy.
- 4.3.4 Within property No 76 Evans Street, a *Dracena* like plant was positioned in a narrow elevated garden bed and close to the boundary fence. The enlarged woody basal section of the plant extended into property 78 Evans St. Given the extent of excavation proposed, a retaining wall is thought to be necessary and should be stepped inwards from the boundary by approximately 20cm to accommodate this protrusion.



#### 4.4 The Development: Proposed excavation and construction impact

##### 4.4.1 The development proposed around the tree includes:

- The tree falls within the footprint of the proposed excavation.
- Lowering of the ground level within the SRZ/TPZ of the tree by a minimum average of 41cm. (Survey/Architectural Plans).
- Demolition of the rear masonry boundary wall.
- It is anticipated a new retaining wall will be required along the side boundary adjoining property No 76 Evans Street.

Under the proposed plans this tree is not retainable (see appendices 1 and 2)

##### 4.4.2 Neighbouring Dracena (76 Evans Street) will potentially require construction modifications to protect the small volume of its basal woody protrusion across the boundary with 78 Evans Street (Photos 4 & 5).

### 5 Conclusion & Recommendation

#### 5.1.1 One mature *Radermachera sinica* (China Doll; Serpent Tree) was located within the north eastern corner of the property. Despite the tree exhibiting good health and vigour, decay was present in the co-dominant stem union at the main trunk union. Of a lesser importance was the constrictive band wrapped around one of the main branches.

The tree falls within the proposed excavation to lower the rear courtyard by an approximate minimum of 41cm.

The tree is not retainable given the proposal.

#### 5.1.2 Design modifications potentially are required for the protection of the neighbouring plant and could potentially include:

- Step in the retaining wall by an approximate 20cm to accommodate the woody protrusion.
- Transplant or remove the Dracena.

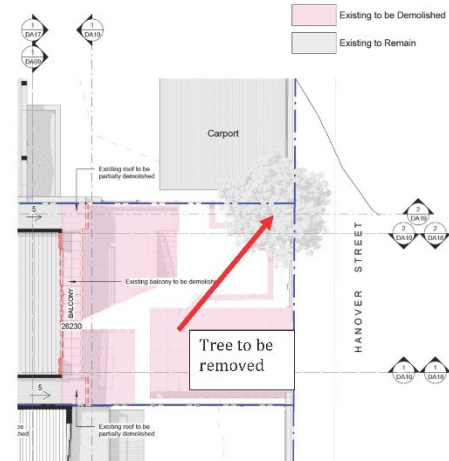




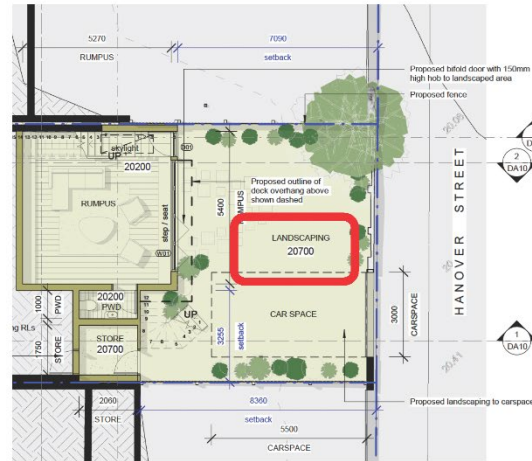
AIA REPORT  
78 EVANS STREET ROZELLE

ASSESSED 18 JANUARY 2022  
REPORT DATE: 21 JANUARY 2022

### Appendix 1 - Tree identification and incursion potentials



Screen shot 2: Proposed demolition and Tree's location (arrow).



Screen shot 1: Proposed courtyard finished levels.

Margot Blues Consulting Arborist  
bluesarbor11@gmail.com

5

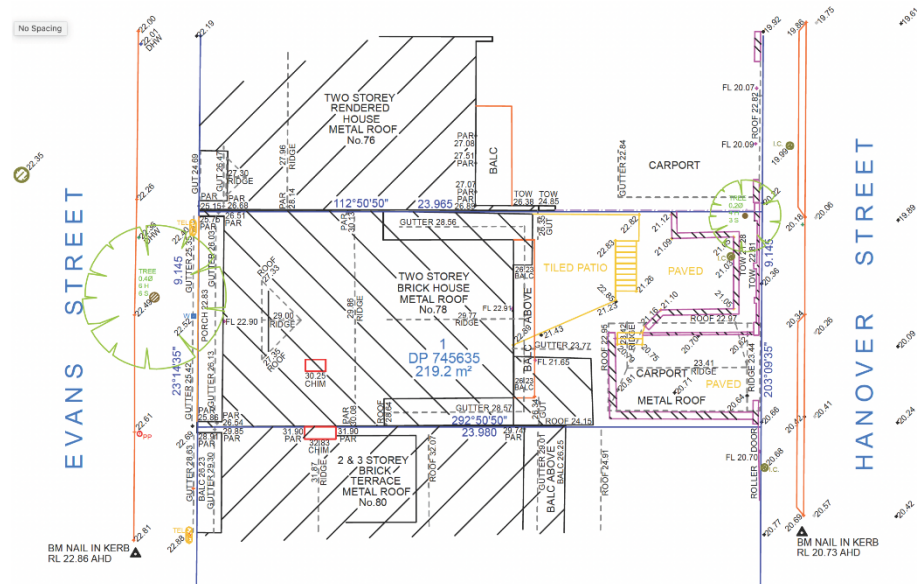
Moe: 0414 991122

Document Set ID: 35918701  
Version: 1, Version Date: 25/02/2022



AIA REPORT  
78 EVANS STREET ROZELLE

ASSESSED 18 JANUARY 2022  
REPORT DATE: 21 JANUARY 2022



Screen shot 3: Survey and T1 identified (Arrow).

Margot Blues Consulting Arborist  
bluesarbor11@gmail.com

6

Moe: 0414 991122

Document Set ID: 35918701  
Version: 1, Version Date: 25/02/2022



AIA REPORT  
78 EVANS STREET ROZELLE

ASSESSED 18 JANUARY 2022  
REPORT DATE: 21 JANUARY 2022

## Appendix 2 – Photographs



Photo 1: T1 and its location.



Photo 2: Decay at co-dominant stem/trunk union.

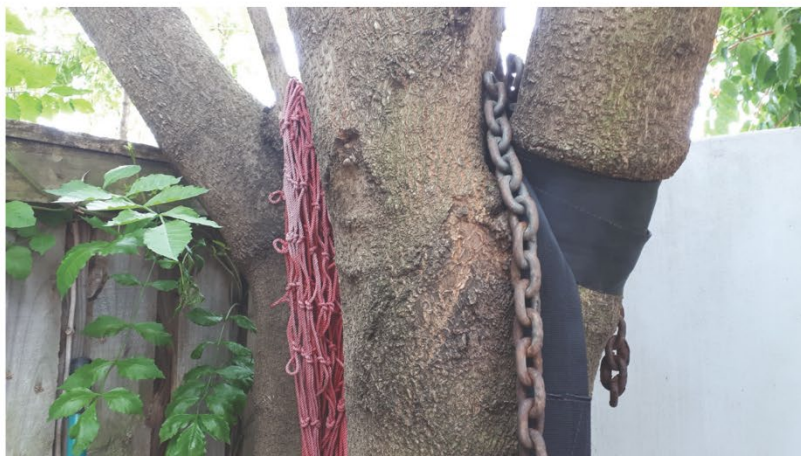


Photo 3: Constrictive banding.

Margot Blues Consulting Arborist  
[bluesarbor11@gmail.com](mailto:bluesarbor11@gmail.com)

Mob: 0414 991122





AIA REPORT  
78 EVANS STREET ROZELLE

ASSESSED 18 JANUARY 2022  
REPORT DATE: 21 JANUARY 2022



Photo 4: Dracena like plants located within neighbouring No 76 Evans Street.



Photo 5: Enlarged base of plants (76 Evans St) extending into 78 Evans and the area of proposed excavation.

Margot Blues Consulting Arborist  
[bluesarbor11@gmail.com](mailto:bluesarbor11@gmail.com)

Mob: 0414 991122

## Attachment E – Geotechnical Report

### GEOTECHNICAL INVESTIGATION REPORT

**No. 78 Evans Street  
Rozelle, NSW**

Prepared for

**Mr Andrew Jouana  
c/- Studio Panetta**

**Reference No. ESWN-PR-2021-1156**

**17<sup>th</sup> January 2022**

#### *Geotechnical Engineering Services*

- Geotechnical investigation
- Lot classification
- Geotechnical design
- Footing inspections
- Excavation methodology and monitoring plans
- Slope stability analysis
- Landslide risk assessment
- Permeability test
- Finite element analysis (FEA)



**ESWNMAN PTY LTD**  
ABN 70 603 089 630  
PO Box 6, Ashfield NSW 1800  
Telephone +61 2 7901 5582  
Email [info@eswnman.com.au](mailto:info@eswnman.com.au)  
Website <http://www.eswnman.com.au>

**CONTROLLED DOCUMENT****DISTRIBUTION AND REVISION REGISTER**

Revision	Details	Date	Amended By
00	Original	17/01/2022	

©ESWNMAN Pty Ltd (ESWNMAN) [2014].

Copyright in the drawings, information and data recorded in this document (the information) is the property of ESWNMAN Pty Ltd. This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by ESWNMAN. ESWNMAN makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.

Author: Jiameng Li.....

Signed: .....*JLi*.....

Date: 17/01/2022 .....

## TABLE OF CONTENTS

1. INTRODUCTION .....	5
1.1 Available Information .....	5
1.2 Proposed Development .....	5
1.3 Scope of Work .....	6
2. SITE DESCRIPTION.....	6
3. LOCAL GEOLOGY .....	7
4. METHODOLOGY OF INVESTIGATION.....	7
4.1 Pre-fieldwork.....	7
4.2 Borehole Drilling .....	7
4.3 Dynamic Cone Penetrometer (DCP) Test .....	7
4.4 Examination of Sandstone Outcrops .....	8
5. RESULTS OF INVESTIGATION.....	8
5.1 Surface Conditions .....	8
5.2 Subsurface Conditions .....	8
5.3 Groundwater Conditions.....	9
6. GEOTECHNICAL ASSESSMENT.....	9
6.1 Site Classifications.....	10
6.2 Excavation Conditions .....	10
6.3 Excavation Support / Stability of Excavation .....	11
6.4 Earth Retaining Structures .....	13
6.5 Foundations .....	14
6.6 Foundation/subgrade Preparation.....	15
6.7 Comments on Earthworks and Material Use.....	16
6.8 Water/seepage Management .....	17
6.9 Excavation Methods and Vibration Control Measures.....	17
7. CONCLUSIONS AND RECOMMENDATIONS .....	19
8. LIMITATIONS.....	20

### LIST OF TABLES

Table 1 - Subsurface Conditions at Testing Locations	9
Table 2 - Recommended Safe Excavation Batters	12
Table 3 - Preliminary Geotechnical Parameters for Retaining Walls	13
Table 4 - Preliminary Coefficients of Lateral Earth Pressure	14
Table 5 - Preliminary Geotechnical Foundation Design Parameters	15
Table 6 - Preliminary Type of Typical Excavation Plant	18
Table 7 - Preliminary Vibration Limits Related to Buffer Distance & Type of Plant	19

### LIST OF APPENDICES

APPENDIX A	SITE LOCATION PLAN
APPENDIX B	SITE PHOTOGRAPHS
APPENDIX C	ENGINEERING BOREHOLE LOGS AND EXPLANATORY NOTES
APPENDIX D	RESULTS OF DYNAMIC CONE PENETROMETER(DCP) TEST
APPENDIX E	LIMITATIONS OF GEOETCHNICAL INVESTIGATION

### REFERENCES

1. Australian Standard – AS 1726-2017 Geotechnical Site Investigation.
2. Australian Standard AS 1289.6.3.2 – Determination of the penetration resistance of a soil – 9 kg dynamic cone penetrometer test.
3. Australian Standard – AS 2870-2011 Residential Slabs and Footings.
4. Australian Standard – AS 2159-2009 Piling - Design and Installation.
5. Australian Standard – AS 3798-2007 Guidelines on Earthworks for Commercial and Residential Developments.
6. Australian Standard – AS 1170.4-2007 Structural Design Actions – Part 4: Earthquake actions in Australia.
7. Australian Standard – AS 4678-2002 Earth-retaining Structures.
8. Austroads – “Pavement Design – A Guide to the Structural Design of Road Pavements”, 2004.
9. “NSW WorkCover: Code of Practice – Excavation” July 2015.
10. Pells, P.J.N, Mostyn, G. & Walker B.F., “Foundations on Sandstone and Shale in the Sydney Region”, Australian Geomechanics Journal, 1998.
11. CSIRO, BTF 18 - “Foundation Maintenance and Footing Performance: A Homeowner’s Guide”.





## 1. INTRODUCTION

ESWNMAN Pty Ltd (ESWNMAN) was commissioned by Mr Andrew Jouaba c/- Studio Panetta to undertake a geotechnical investigation at No. 78 Evans Street, Rozelle, NSW 2039. The fieldwork was completed on 14<sup>th</sup> January 2022 by an experienced Geotechnical Engineer from ESWNMAN.

The purpose of geotechnical investigation was to assess feasibility of the site in geotechnical prospective for a proposed development.

This report presents results of geotechnical investigation & in-situ tests, interpretation and assessment, and provides comments on geotechnical related issues and recommendations.

### 1.1 Available Information

The following information was provided to ESWNMAN prior to the fieldwork:

- Preliminary architectural drawings titled "Jouana Residence, 78 Evans Street, Rozelle" prepared by Studio Panetta, including drawing nos. SK01 to SK25 inclusive and dated 9<sup>th</sup> November 2021.
- A site survey plan titled "Detail Survey, 78 Evans Street, Rozelle, Lot 4 DP380" prepared by benchmark Surveys NSW Pty Ltd, referenced 210708 and dated 4<sup>th</sup> August 2021.

### 1.2 Proposed Development

Based on the information provided in Section 1.1, the proposed development will comprise the partial demolition of existing structures at rear of site and construction of an extension to existing ground level, a rumpus and landscaping.

During construction, the following excavation and earthworks may be required:

- Approximate excavation of 1.0m deep for proposed rumpus and storage;
- Minor cut of 0.3m-0.5m deep for landscaping at rear garden;
- Minor excavation within footing areas (such as, pad/strip footings); and
- Trench excavation/backfilling for installation of water/sewer/stormwater pipes.

An approximate setback of 2.98m from south-western side boundary and nil from site north-eastern side boundary was proposed.

### 1.3 Scope of Work

The geotechnical investigation was carried out by an experienced Geotechnical Engineer from ESWNMAN, including the following:

- Desktop study on local geology and our in-house dataset near the subject site;
- Collection and review of Dial-Before-You-Dig (DBYD) plans;
- A site walkover to assess the surface conditions, identify relevant site features and nominate borehole and testing locations;
- Drilling of two(2) boreholes, identified as BH1 & BH2, to check thickness of fill and property of natural soils;
- Undertaking Dynamic Cone Penetrometer (DCP) Tests at four(4) locations and denoted as DCPs 1 to 4 accordingly, to assess strength of soils and rock profile;
- Visual examination and mapping of rock outcrops exposed within subfloor area;
- Reinstatement of site with soil cuttings from boreholes;
- Interpretation of investigation data obtained; and
- Preparation of a geotechnical report.

The approximate locations of sandstone outcrops encountered, borehole and DCP tests completed during site investigation are shown on Figure 1 – “Site Location Plan” as included in Appendix A of this report.

## 2. SITE DESCRIPTION

The site is located within Inner West Council area, approximately 3.2km to the northwest of Sydney CBD, 320m to the east of Rozelle Public School and 650m to the west of White Bay.

The site is a rectangular-shaped land, identified as Lot 4 in Deposited Plan (DP)380, with an approximate area of 219.2m<sup>2</sup>.

At time of investigation, the site was occupied by a two storey brick house. The site is characterised by a gentle sloping ground with a slope angle of 5° on average towards the east and southeast.

Selected site photographs recorded during site investigation are provided in Appendix B.

### 3. LOCAL GEOLOGY

Reference to the Sydney 1:100,000 Geological Series Sheet 9130 (Edition 1), dated 1983, by the Geological Survey of New South Wales, Department of Mineral Resources, indicates the site is located within an area underlain by Hawkesbury Sandstone Formation(Rh). The Hawkesbury Sandstone is described as “Medium to coarse-grained quartz sandstone, very minor shale and laminite lenses”.

Results of site investigation as provided in Section 5.2, including visual examination of rock outcrops exposed within subfloor area, confirmed the published geology.

### 4. METHODOLOGY OF INVESTIGATION

#### 4.1 Pre-fieldwork

Prior to the commencement of the fieldwork, a desktop study on local geology and our in-house dataset near the subject site was undertaken.

A ‘Dial Before You Dig’ (DBYD) services search was also conducted and reviewed prior to the commencement of fieldwork and in-situ tests.

#### 4.2 Borehole Drilling

During site investigation, two(2) boreholes to check thickness of fill and property of natural soils, were completed at rear garden area to a refusal depth between 0.8m and 1.3m below the existing ground level (BGL), using a hand operated equipment assisted with in-situ tests.

The borehole locations are shown on Figure 1 attached in Appendix A. Engineering logs of boreholes processed using Bentley gINT software together with borehole explanatory notes are presented in Appendix C.

#### 4.3 Dynamic Cone Penetrometer (DCP) Test

The Dynamic Cone Penetrometer (DCP) Test involves hammering cone tipped rods using a standard weight and drop height. The number of blows required to penetrate each 100 mm is recorded (Reference 2). The DCP test is used to assess in-situ strength of undisturbed soil and/or compacted materials. The penetration rate of the 9-kg DCP can be used to estimate in-situ CBR (California Bearing Ratio) and to identify strata thickness and other material characteristics.



A total of four(4) DCP tests, positioned next to borehole or at a selected location and identified as DCPs 1 to 4 accordingly, were also completed to assess strength of soils with depth and rock profile during site investigation. DCP tests reached refusal depth and bounce of DCP hammer occurred at 1.3m, 0.8m, 0.9m and 0.9m BGL at location of DCPs 1 to 4 respectively.

The location of DCP tests is attached in Appendix A. The record of DCP test results is presented in Appendix D.

#### **4.4 Examination of Sandstone Outcrops**

Visual examination of rock outcrops exposed within existing subfloor area was also undertaken during the site investigation. The grain size and colour, weathering degree, and estimated strength were recorded and assessed on-site by an experienced Geotechnical Engineer from ESWNMAN. The approximate locations of sandstone outcrops observed within the site are shown on Figure 1 in Appendix A and also indicated on Photo 4 in Appendix B.

All fieldwork was supervised on a full time basis by an experienced Geotechnical Engineer who was responsible for nominating locations of boreholes and DCP tests, preparing field engineering logs of the subsurface strata encountered in accordance with AS 1726 for Geotechnical Site Investigation(Reference 1), mapping the sandstone outcrops, undertaking in-situ tests and taking site photographs.

The approximate reduced levels of boreholes and DCP tests, which were estimated based on the survey plan provided as referenced in Section 1.1, are presented in the attached Engineering log and record sheet of DCP tests.

### **5. RESULTS OF INVESTIGATION**

#### **5.1 Surface Conditions**

At time of site investigation, the site was occupied by an existing house, a laundry, a carport, tiled patio, paved surface and planter boxes.

#### **5.2 Subsurface Conditions**

Based on visual examination of sandstone outcrops, borehole information and interpreted results of DCP tests, subsurface conditions encountered mainly consisted of the following:

- **Fill (Unit 1):** SAND/clayey SAND, fine - medium grained, dark grey-grey, some gravel, trace sandstone boulder, moist, variable compaction, typically 0.5m to 1.0m in thickness; overlying
- **Residual Soils (Unit 2):** Clayey SAND, medium grained, brown, moist, medium dense and dense, extending to top of rock at a variable depth of 1.3m, 0.8m, 0.9m and 0.9m BGL at location of DCPs 1 to 4 respectively; overlying
- **Weathered Sandstone (Unit 3):** Class IV-III SANDSTONE, medium to coarse grained, light grey & brown, moderately weathered, medium and high strength, based on visual examination of sandstone outcrops exposed within subfloor area as indicated on Figure 1 in Appendix A and Photo 4 in Appendix B. The classification of rock was carried out in accordance with Pells et al (Reference 10).

The subsurface conditions described above are also summarised in Table 1 below.

**Table 1 – Subsurface Conditions at Testing Locations**

Geotechnical Unit and Description		Inferred Depth to Top of Unit (m, BGL)			
		BH1/DCP1	BH2/DCP2	DCP3	DCP4
<b>Fill (Unit 1)</b>	SAND/clayey SAND, variable compaction	0	0	0	0
<b>Residual Soils (Unit 2)</b>	Clayey SAND, medium dense & dense	1.0	0.5	0.6*	0.7*
<b>Weathered Sandstone (Unit 3)</b>	Class IV-III SANDSTONE, medium to high strength	1.3	0.8	0.9	0.9

Note: \* - Inferred based on interpreted results of DCP tests.

### 5.3 Groundwater Conditions

No groundwater was encountered at any boreholes up to 1.3m BGL. No water seepage/inflow and no wet soil materials were observed on DCP tools up to 1.3m BGL when DCP accessories were extracted onto ground surface upon completion of DCP tests.

## 6. GEOTECHNICAL ASSESSMENT

The main geotechnical aspects associated with proposed development are assessed to include the following:

- Site classifications;
- Excavation conditions;
- Excavation stability/excavation support;
- Earth retaining structures;
- Foundations;

- Foundation/subgrade preparation;
- Earthworks and material use;
- Water/seepage management; and
- Construction methods and vibration control measures.

The assessment of geotechnical aspects above and recommendations for the proposed development are presented in the following sections.

### 6.1 Site Classifications

#### *(a) Site reactive classification*

Based on ground profile of the site and the criteria specified in AS 2870 (Reference 3), the site is assessed as Class A – “Most sand and rock sites” with little or no ground movement from moisture changes if our recommendations in Sections 6.5 are adopted.

The above classification and footing recommendations are provided on the basis that the performance expectations set out in Appendix B of AS2870 are accepted.

Design, construction and maintenance of plumbing, ground drainage, protection of building perimeter, the garden, etc. should be carried out in accordance with CSIRO BTF18 (Reference 11) to avoid any water related problems or significant changes of moisture in building foundations, which may contribute to surface movement.

#### *(b) Site earthquake classification*

The results of the site investigation indicate the presence of fill and residual soils, underlain by Weathered Sandstone. In accordance with Australian Standard AS 1170.4 (Reference 6), the site may be classified as a “Rock site” (Class B<sub>a</sub>) for foundation design of building and retaining walls embedded in the underlying sandstone. The Hazard Factor (Z) for Rozelle in accordance with AS 1170.4 is considered to be 0.08.

### 6.2 Excavation Conditions

The design information for the proposed development as provided in Section 1.2 indicates an approximate excavation up to 1.0m would be required for proposed rumpus and storage. Based on subsurface conditions in Section 5.2, Unit 3 – “Class IV Sandstone” is typically 0.8m BGL and exposed on surface within existing subfloor area, therefore, excavation within rock would be expected during excavation of proposed rumps and storage.

Any fill and deleterious materials, including old footings/buried structures, concrete slabs, plant/tree roots, redundant services, timber/brick material, and sandstone boulders, are expected to be stripped and removed from development area to spoils.

Based on groundwater conditions in Section 5.3, **we assessed it is unlikely to encounter groundwater during excavation of proposed ramps and storage.**

Excavation of the soils and low strength Class V Sandstone (may encounter locally) would be feasible using conventional earthmoving equipment. Heavy ripping and rock breaking equipment or vibratory rock breaking equipment is expected to be required for excavation in medium strength Class IV Sandstone or stronger rock.

**To minimise induced vibration during excavation within medium and high strength sandstone, the excavation method and control measures recommended in Section 6.9 should be adopted.**

### 6.3 Excavation Support / Stability of Excavation

#### (a) *Shallow Excavation* (i.e. <1.0 m in Depth)

For shallow excavations, it should be carried out in accordance with the 'NSW WorkCover: Code of Practice – Excavation' (Reference 9).

Temporary excavations away from site boundaries through the underlying fill and natural soils to a maximum depth of 1.0m, may be excavated near vertical provided that:

- They do not encroach ZOI (Zone of Influence, defined as 45° angle of draw from nearest edge of footing underside) of any site or adjoining structures;
- They are barricaded when not in use;
- They are not left open for more than 24 hours;
- No surcharge loading is applied within 1.5m of the edge of the excavation;
- No groundwater flows are encountered; and
- They are not used for access by a worker.

Where access is required for workers, the temporary excavation batters should be re-graded to no steeper than 2 Horizontal (H) to 1 Vertical (V) for the soils above the natural groundwater level, or supported by a suitable temporary shoring measure.



Any permanent excavation (or filling) greater than 0.6m in height should be retained by a permanent retaining wall to be designed by a qualified Engineer based on our recommendation provided in Section 6.4 of this report.

**(b) Deep Excavations** (i.e. >1.0 m in Depth)

Any excavation batters in soils and/or rocks greater than 1.0 m in depth, the temporary safe batters for excavated slopes in Table 2 below can be adopted under dry conditions:

**Table 2 - Recommended Safe Excavation Batters<sup>1</sup>**

Geotechnical Unit <sup>3</sup>	Maximum Batter Angle	
	Temporary	Permanent
Fill (Unit 1) & Residual Soils (Unit 2)	2.0H:1V	To be retained
Class IV-III Sandstone (Unit 3)	Sub-vertical <sup>2</sup> , self-supporting with shotcrete <sup>2</sup>	Sub-vertical <sup>2</sup> with reinforced shotcrete, localised rock bolts

Notes:

<sup>1</sup> - Typical temporary batters of excavated slopes (Hoerner, 1990). Assume no surcharge on top of cutting batter and no major adjoining structures. Staged excavation and construction can be adopted.

<sup>2</sup> - Reinforced shotcrete and/or rock bolts may be required for vertical or sub-vertical cuts in this unit subject to assessment by a Geotechnical Engineer during excavation.

<sup>3</sup> - Approximate depth to top of unit refers to Table 1 and testing location shown on Appendix A.

Based on proposed setbacks and approximate excavation depth, we assessed excavation using safe batters recommended in Table 2 would be feasible for majority of excavation of proposed rumps and storage. **However, due to inadequate setbacks proposed from side boundaries for the rumps and storage, the following temporary excavation support/shoring measures for the soil profile can be adopted:**

- **Reinforced shotcrete with adequate drainage**(strip drain & weepholes) for upper portion soils and stabilised on faces of underlying sandstone, subject to a geotechnical inspection as excavation progresses; or
- **Timber/metal sheets associated with struts/props.**

Other alternative shoring options may be considered subject to an assessment by the project Structural Engineer in consultation with a Geotechnical Engineer.

**We strongly recommend the construction excavation should be carried out in a sequence “from middle of site towards side boundaries” so as to obtain a reliable ground profile to review excavation shoring and vibration control measures to be adopted.**

During basement excavation, on-site assessment of exposed faces, safe excavation batters, support/shoring measures, such as, reinforced shotcrete and/or rock bolts and staged excavation and construction method, to be adopted should be carried out by a Geotechnical Engineer.

Dilapidation survey should be undertaken for the adjoining properties and road infrastructure prior to commencement of construction excavation.

**With the recommended safe excavation batters, shoring/support measures, and geotechnical inspection, construction of the proposed basement in the short and long terms is expected to have no impacts on the existing site structures, adjoining buildings, roads and public infrastructure.**

#### 6.4 Earth Retaining Structures

The earth retaining structure should be designed to withstand the applied lateral pressures of the subsurface layers, the existing surcharges in their zone of influence, including existing structures, construction machines, traffic and construction related activities. The design of retaining structures should also take into consideration hydrostatic pressures and lateral earthquake loads as appropriate. **Filter type geofabric should be considered to be installed between wall backfill area and surrounding soils** to prevent the soil erosion and fines from entering the wall drainage system.

Earth retention structures can be designed in accordance with AS 4678 (Reference 7).

The recommended preliminary parameters for design of retaining structures are presented in Tables 3 and 4 below. The coefficients provided are based on drained conditions.

**Table 3 - Preliminary Geotechnical Design Parameters for Retaining Walls**

Geotechnical Unit	Unit Weight (kN/m <sup>3</sup> )	Effective Cohesion c' (kPa)	Angle of Effective Internal Friction $\phi'$ (°)	Modulus of Elasticity E <sub>sh</sub> (MPa)	Poisson Ratio $\nu$
Fill (Unit 1)	17	0	30	15	0.35
Residual Soils (Unit 2)	18	0	33	30	0.35
Class IV Sandstone <sup>1</sup> (Unit 3)	24	150	35	200	0.20

<sup>1</sup> - Classification of the rock in accordance with Pells et al (Reference 10).

Table 4 - Preliminary Coefficients of Lateral Earth Pressure

Geotechnical Unit	Coefficient of Active Lateral Earth Pressure ( $K_a$ )	Coefficient of Active Lateral Earth Pressure at Rest ( $K_0$ )	Coefficient of Passive Lateral Earth Pressure ( $K_p$ )
Fill (Unit 1)	0.33	0.50	3.0
Residual Soils (Unit 2)	0.29	0.46	3.4
Class IV Sandstone <sup>1</sup> (Unit 3)	0.27	0.43	3.7

<sup>1</sup> - Classification of the rock in accordance with Pells et al (Reference 10).

The coefficients of lateral earth pressure should be verified by the project Structural Engineer prior to use in the design of retaining walls. Simplified calculations of lateral active (or at rest) and passive earth pressures can be carried out using Rankine's equation shown below:

$$P_a = K \gamma H - 2c\sqrt{K} \quad \text{For calculation of Lateral Active or At Rest Earth Pressure}$$

$$P_p = K_p \gamma H + 2c\sqrt{K_p} \quad \text{For calculation of Passive Earth Pressure}$$

Where:

- $P_a$  = Active (or at rest) Earth Pressure ( $\text{kN/m}^2$ )
- $P_p$  = Passive Earth Pressure ( $\text{kN/m}^2$ )
- $\gamma$  = Bulk density ( $\text{kN/m}^3$ )
- $K$  = Coefficient of Earth Pressure ( $K_a$  or  $K_0$ )
- $K_p$  = Coefficient of Passive Earth Pressure
- $H$  = Retained height (m)
- $c$  = Effective Cohesion ( $\text{kN/m}^2$ )

## 6.5 Foundations

Based on the information provided on proposed development and subsurface conditions, we assessed a footing system consisting of **cast in-situ reinforced shallow foundations**, such as pad/strip footings under walls and columns/stiffened raft slab, founded in Unit 3 – “Class IV Sandstone”, would be applicable for proposed development. We expect after excavation to proposed FFL for rumps & storage, the base of bulk excavation is likely occupied by Class IV Sandstone or better rock.

For those ground floor levels or new structures falling outside the footprint of rumps/storage, **piers/piles founded in Unit 3 – “Class IV Sandstone”**, can be considered.

We recommend for either footing option above, the suitable founding materials should be Unit 3 - "Class IV Sandstone" or better rock, with a minimum 300mm footing embedment.

The preliminary geotechnical parameters recommended for design of both shallow and piled foundations are provided in Table 5 below.

**Table 5 - Preliminary Geotechnical Foundation Design Parameters**

Geotechnical Unit	Allowable Bearing Capacity (kPa) <sup>1</sup>	Allowable Shaft Adhesion (kPa)	Modulus of Elasticity ( $E_{sN}$ , MPa)
Fill (Unit 1)	N/A <sup>2</sup>	N/A <sup>2</sup>	15
Residual Soils (Unit 2)	150 (Shallow footings) <sup>2</sup>	20	30
Class IV Sandstone (Unit 3)	1,000 (Shallow footing/piles)	90	200

<sup>1</sup> With a minimum footing embedment depth of 300mm into bearing stratum.

<sup>2</sup> N/A, Not Applicable, being excavated, not recommended for building structure or retaining walls.

Design of shallow and piled foundations should be carried out in accordance with Australian Standards AS2870 (Reference 3) and AS2159 (Reference 4).

To minimise the potential effects of differential settlement under the buildings loads, it is recommended all foundations of the proposed building should be founded on consistent materials of similar properties or rock of similar class.

Any water, debris, loose and wet materials should be removed from excavations prior to placement of reinforcement and pouring of concrete.

A Geotechnical Engineer should be engaged to inspect footing excavations to ensure foundation bases have suitable materials with adequate bearing capacity, and to check the adequacy of footing embedment/socket depth if unexpected ground conditions are encountered.

## 6.6 Foundation/subgrade Preparation

For service pipes, or slabs designed to partially or fully rely on fill underneath (either existing fill or new fill), to achieve an allowable bearing capacity of 150kPa, the following ground treatment can be adopted as a guidance:

- Excavate and re-compact uppermost 0.5m of Unit 1;
- Remove topsoil/fill, organic matters and foreign matters;
- Level off the existing natural ground surface;

- Densify the loose sand mechanically, as a guidance, rolling at least 10 passes of a smooth drum roller of 5 to 8 tonne minimum deadweight or the equivalent (Note: Vibratory and impact compaction not recommended near existing footings);
- Compact and place fill materials at loose layer of not exceeding 200mm in thickness in accordance with Section 6.7;
- Repeat the above till proposed FFL.

Other alternative options to densify the subgrade/foundation can also be considered after an assessment by a Geotechnical Engineer.

The final pass should be carried out in the presence of a Geotechnical Engineer to verify the results of compaction by in-situ soil tests and inspection.

#### 6.7 Comments on Earthworks and Material Use

The excavated materials from excavation are assessed to be generally suitable for landscaping provided they are free of any contaminants.

The suitability of the site won materials or imported materials for use as engineering fill should be subject to satisfying the following criteria:

- The materials should be Virgin Excavated Natural Material (VNEM) and clean (i.e. free of contaminants, deleterious or organic material), free of inclusions of >75mm in size, high plasticity material be removed and suitably conditioned to meet the design assumptions where fill material is proposed to be used.
- The materials should satisfy the Australian Standard AS 3798 Guidelines on Earthworks for Commercial and Residential Developments (Reference 5).

As a guidance for the fill construction, the following compaction targets can be adopted:

- Moisture content of  $\pm 2\%$  of OMC (Optimal Moisture Content);
- Minimum density ratio of 100% of the Maximum Dry Density (MDD) for filling within building/structural foundation areas;
- Minimum density ratio of 98% of MDD for backfilling surrounding pipes within trenches or behind retaining walls (unless otherwise specified on design drawings);
- The loose thickness of layer should not exceed 200mm for cohesionless soils; and
- For the driveway/footpath/pavement areas, minimum density ratio of 95% of MDD for general fill and 98% for the subgrade to 0.5m depth.

Design and construction of earthworks should be carried out in accordance with Australian Standard AS 3798 (Reference 5).

### 6.8 Water/seepage Management

The observations summarised in Section 5.3 indicate it is unlikely to encounter groundwater during excavation of rumpus and storage.

Based on our years of experience in similar projects within Sydney Region, it is possible that minor localised seepage/inflow may occur at interface of soils and underlying rock, within fractures/defects in the rock, including apertures, joints or other natural defects within underlying sandstone, in particular, when it encounters an intense and prolonged rainfall event.

During intense and prolonged rainfall period, basement excavations would typically require a temporary sump pit within the site to collect and remove any surface water or seepage that may occur.

Nevertheless, it would be prudent at this stage to allow for precautionary drainage measures in the design and construction of the proposed development. As a guidance, the following measures can be considered:

- Strip drains or drainage materials should be installed behind retaining walls.
- **Filter type geofabric should be considered to be installed between wall backfill area and surrounding soils** to prevent the soil erosion and fines from entering the wall drainage system.
- Collection trenches or pipes and pits connected to the building stormwater system. A stormwater storage tank and pump system may be required.
- The basement walls and slabs should be designed to withstand hydrostatic pressures taking into consideration the potential for seepage.

### 6.9 Excavation Methods and Vibration Control Measures

For this site, the majority of rock excavation will occur during excavation for the proposed rumpus and storage up to 1.0m deep, involving digging in sandstone bedrock.

**Induced vibrations in structures adjacent to the excavation should not exceed a Peak Particle Velocity (PPV) of 10mm/sec for brick or unreinforced structures in good condition, 5mm/sec for residential and low rise buildings or 2mm/sec for historical or structures in sensitive conditions.**

Based on the subsurface conditions, the excavation equipment listed in Table 6 below can be adopted as a guidance for construction excavation.

**Table 6 – Preliminary Type of Typical Excavation Plant**

Geotechnical Unit*	Likely Plant Requirements
Soils and Class V Sandstone	Buckets attached to large excavators or dozers, using “tiger teeth”
Class IV Sandstone	Medium size rock breaking hammer, ripper on 20 tonne excavator, large dozer or 30 tonne Excavator, Caterpillar D9 or larger
Class III Sandstone	Heavy rock breaking, hydraulic rock Hammers

Note: \* Rock classification to be undertaken in accordance with Pells et al (1998) (Reference 10).

For excavation in rock, plant selection will depend on the proximity of neighbouring structures and their susceptibility to damage caused by vibration induced by excavation plant.

The propagation of vibrations at a site will depend on the plant used and the ground conditions, construction activities, and type of foundations of the structure receiving the vibrations. The ground conditions, including type of soils and rocks, unit thickness, rock strength and defects, and groundwater condition, are unique for each site.

It should be noted that buffer distances for rock hammer may be reduced appreciably by application of prior saw cutting along excavation near site boundaries.

Dilapidation survey of adjoining properties and road infrastructure should be carried out prior to commencement of construction.

To achieve the required vibration limits, the operating limits of the maximum capacity for different types of rock excavation plants and distance to nearest structures are provided in Table 7 overleaf.

To ensure vibration levels remain within acceptable levels and minimise the potential effects of vibration, **excavation into Class IV Sandstone & Class III Sandstone should be carried out in a controlled & careful manner, and complemented with saw cutting or other appropriate methods prior to excavation.** Rock saw cutting should be carried out using an excavator mounted rock saw, or the like, so as to minimise transmission of vibrations to any adjoining properties that may be affected. **Hammering is not recommended and should be avoided.** However, if necessary, hammering should be carried out horizontally along bedding planes of (pre-cut) broken rock blocks or boulders



where possible with noise levels restricted to acceptable to comfortable limits to adjacent residents.

**Table 7 - Preliminary Vibration Limits related to Buffer Distance and Type of Plant**

Distance from adjoining structure (m)	Maximum Peak Particle Velocity (PPV)			
	PPV= 5mm/sec		PPV=10mm/sec	
	Plant	Operating Limit (% of Maximum Capacity)	Plant	Operating Limit (% of Maximum Capacity)
1.5 to 2.5	Hand operated Jack Hammer	50	Hand operated Jack Hammer	100
	Rock saw on excavator	50	Rock saw on excavator	100
2.5 to 5.0	Ripper on 20 tonne excavator	50	300kg Rock Hammer	100
	300kg Rock Hammer	50	600kg Rock Hammer	50
5.0 to 10.0	300kg Rock Hammer	100	600kg Rock Hammer	100
	600kg Rock Hammer	50	900kg Rock Hammer	50

## 7. CONCLUSIONS AND RECOMMENDATIONS

- Results of investigation and assessment indicate the ground conditions at this site are suitable for proposed development and associated works.
- The site can be assessed as Class A – “Most sand and rock sites” in accordance with AS 2870.
- We assessed a footing system consisting of **cast-in-situ reinforced concrete shallow foundations** can be adopted for proposed development. We recommend the suitable founding materials should be **Unit 3 – “Class IV Sandstone”** or better rock, with a minimum 300mm footing embedment. The footing systems and recommended geotechnical design parameters are provided in Section 6.5.
- A Geotechnical Engineer should be engaged to inspect footing excavations to ensure the foundation base have been taken to suitable materials of appropriate bearing capacity and adequate embedment depth/socket length if unexpected ground conditions are encountered.
- The ground vibration control, including selection of plants, working distances and excavation methodologies are discussed in Section 6.9. To minimise excavation induced ground vibration, **we recommend rock saw should be used to pre-cut the rock** when excavation encounters medium and high strength rock.
- We recommend the construction excavation should be carried out in a sequence



“from middle of site towards side boundaries” so as to obtain a reliable ground profile to review excavation shoring and vibration control measures to be adopted.

- The construction, including cut/filling, excavation methods, safe excavation batters, shoring/support measures, footing system, foundation/subgrade preparation, retaining walls, water/seepage management, ground vibration controls and drainage works, should be implemented in accordance with the recommendations provided in Section 6.
- We assessed if our recommendations in this report are adopted, the construction of the proposed development in the short and long terms is expected to have no impacts on the existing site structures, adjoining buildings, roads and public infrastructure.

#### 8. LIMITATIONS

This report should be read in conjunction with the “Limitations of Geotechnical Investigation Statement” attached as Appendix E, which provides important information regarding geotechnical investigation, assessment and reporting. If the actual subsurface conditions exposed during construction vary significantly from those discussed in this report, this report should be reviewed, and the undersigned should be contacted for further advices.

For and on behalf of  
**ESWNMAN Pty Ltd**

**Jiameng Li**  
BE (Civil), MEngSc (Geotechnical), MIEAust, CPEng, NER  
**Principal Geotechnical Engineer**  
ESWNMAN PTY LTD  
PO Box 6, Ashfield NSW 1800  
M: +61 421 678 797 E: [Jiameng@eswnman.com.au](mailto:Jiameng@eswnman.com.au)  
<http://www.eswnman.com.au>



No. 78 Evans Street, Rozelle, NSW 2039  
Geotechnical Investigation Report

Reference No.: ESWN-PR-2021-1156  
17<sup>th</sup> January 2022

# APPENDIX A

---

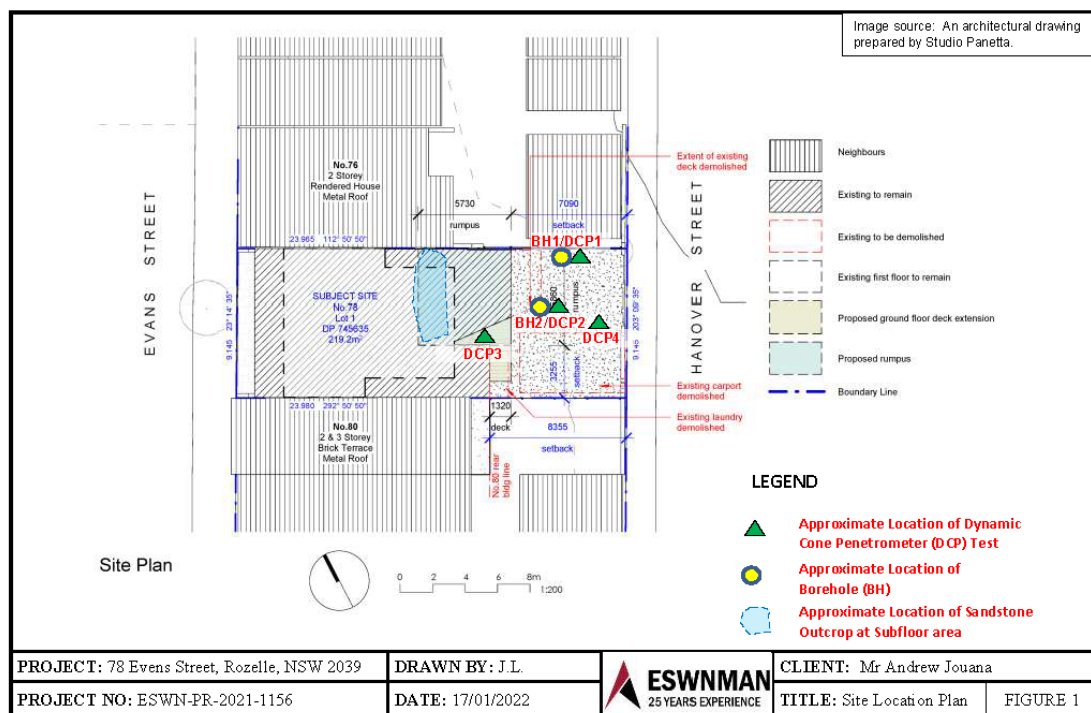
## SITE LOCATION PLAN

---

© ESWNMAN Pty Ltd



Document Set ID: 35918700  
Version: 1, Version Date: 25/02/2022



Document Set ID: 35918700  
Version: 1, Version Date: 25/02/2022

# APPENDIX B

---

## SITE PHOTOGRAPHS

---

© ESWNMAN Pty Ltd



Document Set ID: 35918700  
Version: 1, Version Date: 25/02/2022

Ref: ESWN-PR-2021-1156 No. 78 Evans Street, Rozelle, NSW 2039

Geotechnical Investigation

17<sup>th</sup> January 2022

	
<p><b>Photograph 1</b> Drilling in progress at location of borehole BH1</p>	<p><b>Photograph 2</b> Dynamic Cone Penetrometer(DCP) Test at location of DCP2</p>
	
<p><b>Photograph 3</b> DCP test in progress at location of DCP3</p>	<p><b>Photograph 4</b> Sandstone outcrops exposed within existing sub floor area</p>

## Appendix B Site Photographs

© ESWNMAN PTY LTD



Document Set ID: 35918700  
Version: 1, Version Date: 25/02/2022

# APPENDIX C

---

## ENGINEERING BOREHOLE LOGS AND EXPLANATORY NOTES

---

© ESWNMAN Pty Ltd



Document Set ID: 35918700  
Version: 1, Version Date: 25/02/2022



<b>ESWNMAN</b> Pty Ltd <small>25 YEARS EXPERIENCE</small> PO Box 6, Ashfield, NSW 1800 Telephone: 02-79015582						<b>BOREHOLE NUMBER BH1</b> <small>PAGE 1 OF 1</small>		
CLIENT <u>Mr Andrew Jouana</u>			PROJECT NAME <u>Geotechnical Investigation</u>					
PROJECT NUMBER <u>ESWN-PR-2021-1156</u>			PROJECT LOCATION <u>78 Evans Street, Rozelle, NSW</u>					
DATE STARTED <u>14/1/22</u>		COMPLETED <u>14/1/22</u>		R.L SURFACE <u>21.2</u>	DATUM <u>m AHD</u>			
DRILLING CONTRACTOR <u>ESWNMAN Pty Ltd</u>				SLOPE <u>90°</u>	BEARING <u>---</u>			
EQUIPMENT <u>Hand Auger &amp; DCP Test</u>				HOLE LOCATION <u>Refer to Figure 1 Site Location Plan</u>				
HOLE SIZE <u>70mm</u>				LOGGED BY <u>J.L.</u>	CHECKED BY <u>J.L.</u>			
NOTES <u>Planter box at rear garden</u>								
Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Additional Observations
HA		21.0			SC	SAND, fine grained, dark grey, some clay, trace gravel, moist, poorly compacted.		FILL
						SAND, fine-medium grained, grey, some gravel, moist, fairly compacted.		
						0.5		
						20.5		
Not Encountered		20.0			SC	Clayey SAND, medium grained, brown, moist, dense.		RESIDUAL SOILS
						DCP test indicates top of rock at 1.3m depth		
			1.5			Borehole BH1 terminated at 1.3m		

BOREHOLE / TEST PIT ESWN-PR-2021-1156.GPJ GINT STD AUSTRALIA.GDT 15/1/22

PAGE 368

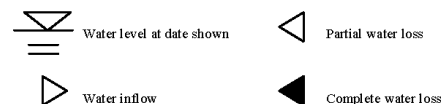
## Explanatory Notes – Description for Soil

In engineering terms soil includes every type of uncemented or partially cemented inorganic material found in the ground. In practice, if the material can be remoulded by hand in its field condition or in water it is described as a soil. The dominant soil constituent is given in capital letters, with secondary textures in lower case. The dominant feature is assessed from the Unified Soil Classification system and a soil symbol is used to define a soil layer.

### METHOD

Method	Description
AS	Auger Screwing
BH	Backhoe
CT	Cable Tool Rig
EE	Existing Excavation/Cutting
EX	Excavator
HA	Hand Auger
HQ	Diamond Core-63mm
JET	Jetting
NMLC	Diamond Core –52mm
NQ	Diamond Core –47mm
PT	Push Tube
RAB	Rotary Air Blast
RB	Rotary Blade
RT	Rotary Tricone Bit
TC	Auger TC Bit
V	Auger V Bit
WB	Washbore
DT	Diatube

### WATER



**NFGWO:** The observation of groundwater, whether present or not, was not possible due to drilling water, surface seepage or cave in of the borehole/test pit.

**NFGWE:** The borehole/test pit was dry soon after excavation. Inflow may have been observed had the borehole/test pit been left open for a longer period.

### SAMPLING

Sample	Description
B	Bulk Disturbed Sample
D	Disturbed Sample
Jar	Jar Sample
SPT	Standard Penetration Test
U50	Undisturbed Sample –50mm
U75	Undisturbed Sample –75mm

### UNIFIED SOIL CLASSIFICATION

The appropriate symbols are selected on the result of visual examination, field tests and available laboratory tests, such as, sieve analysis, liquid limit and plasticity index.

USC Symbol	Description
GW	Well graded gravel
GP	Poorly graded gravel
GM	Silty gravel
GC	Clayey gravel
SW	Well graded sand
SP	Poorly graded sand
SM	Silty sand
SC	Clayey sand
ML	Silt of low plasticity
CL	Clay of low plasticity
OL	Organic soil of low plasticity
MH	Silt of high plasticity
CH	Clay of high plasticity
OH	Organic soil of high plasticity
PT	Peaty Soil

### MOISTURE CONDITION

- Dry**
- Cohesive soils are friable or powdery
  - Cohesionless soil grains are free-running
- Moist**
- Soil feels cool, darkened in colour
  - Cohesive soils can be moulded
  - Cohesionless soil grains tend to adhere
- Wet**
- Cohesive soils usually weakened

© ESWNMAN Pty Ltd

Document Set ID: 35918700

Version: 1, Version Date: 25/02/2022

Free water forms on hands when handling

For cohesive soils the following codes may also be used:

- MC>PL Moisture Content greater than the Plastic Limit.  
 MC~PL Moisture Content near the Plastic Limit.  
 MC<PL Moisture Content less than the Plastic Limit.

### PLASTICITY

The potential for soil to undergo change in volume with moisture change is assessed from its degree of plasticity. The classification of the degree of plasticity in terms of the Liquid Limit (LL) is as follows:

Description of Plasticity	LL (%)
Low	<35
Medium	35 to 50
High	>50

### COHESIVE SOILS - CONSISTENCY

The consistency of a cohesive soil is defined by descriptive terminology such as very soft, soft, firm, stiff, very stiff and hard. These terms are assessed by the shear strength of the soil as observed visually, by hand penetrometer values and by resistance to deformation to hand moulding.

A Hand Penetrometer may be used in the field or the laboratory to provide an approximate assessment of the unconfined compressive strength (UCS) of cohesive soils. The undrained shear strength of cohesive soils is approximately half the UCS. The values are recorded in kPa as follows:

Strength	Symbol	Undrained Shear Strength, $C_u$ (kPa)
Very Soft	VS	< 12
Soft	S	12 to 25
Firm	F	25 to 50
Stiff	St	50 to 100
Very Stiff	VSt	100 to 200
Hard	H	> 200

### COHESIONLESS SOILS - RELATIVE DENSITY

Relative density terms such as very loose, loose, medium, dense and very dense are used to describe silty and sandy material, and these are usually based on resistance to drilling penetration or the Standard Penetration Test (SPT) 'N' values. Other condition terms, such as friable, powdery or crumbly may also be used.

Term	Symbol	Density Index	N Value (blows/0.3 m)
Very Loose	VL	0 to 15	0 to 4
Loose	L	15 to 35	4 to 10
Medium Dense	MD	35 to 65	10 to 30
Dense	D	65 to 85	30 to 50
Very Dense	VD	>85	>50

### COHESIONLESS SOILS PARTICLE SIZE DESCRIPTIVE TERMS

Name	Subdivision	Size
Boulders		>200 mm
Cobbles		63 mm to 200 mm
Gravel	coarse	20 mm to 63 mm
	medium	6 mm to 20 mm
	fine	2.36 mm to 6 mm
Sand	coarse	600 $\mu$ m to 2.36 mm
	medium	200 $\mu$ m to 600 $\mu$ m
	fine	75 $\mu$ m to 200 $\mu$ m

## Description for Rock

The rock is described with strength and weathering symbols as shown below. Other features such as bedding and dip angle are given.

### METHOD

Refer soil description sheet

### WATER

Refer soil description sheet

### ROCK QUALITY

The fracture spacing is shown where applicable and the Rock Quality Designation (RQD) or Total Core Recovery (TCR) is given where:

$$\text{TCR (\%)} = \frac{\text{length of core recovered}}{\text{length of core run}}$$

$$\text{RQD (\%)} = \frac{\text{Sum of Axial lengths of core > 100mm long}}{\text{length of core run}}$$

### ROCK MATERIAL WEATHERING

Rock weathering is described using the abbreviations and definitions used in AS1726. AS1726 suggests the term "Distinctly Weathered" (DW) to cover the range of substance weathering conditions between (but not including) XW and SW. For projects where it is not practical to delineate between HW and MW or it is deemed that there is no advantage in making such a distinction, DW may be used with the definition given in AS1726.

Symbol	Term	Definition
RS	Residual Soil	Soil definition on extremely weathered rock; the mass structure and substance are no longer evident; there is a large change in volume but the soil has not been significantly transported
XW	Extremely Weathered	Rock is weathered to such an extent that it has 'soil' properties, i.e. It either disintegrates or can be remoulded in water
HW	Highly Weathered	The rock substance is affected by weathering to the extent that limonite staining or bleaching affects the whole rock substance and other signs of chemical or physical decomposition are evident. Porosity and strength is usually decreased compared to the fresh rock. The colour and strength of the fresh rock is no longer recognisable.
DW	Distinctly Weathered (see AS1726 Definition below)	
	Moderately Weathered	The whole of the rock substance is discoloured, usually by iron staining or bleaching, to the extent that the colour of the fresh rock is no longer recognisable
SW	Slightly Weathered	Rock is slightly discoloured but shows little or no change of strength from fresh rock
FR	Fresh	Rock shows no sign of decomposition or staining

"Distinctly Weathered: Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to the deposition of weathering products in pores." (AS1726)

### ROCK STRENGTH

Rock strength is described using AS1726 and ISRM - Commission on Standardisation of Laboratory and Field Tests, "Suggested method of determining the Uniaxial Compressive Strength of Rock materials and the Point Load Index", as follows:

Term	Symbol	Point Load Index $Is_{(50)}$ (MPa)
Extremely Low	EL	<0.03
Very Low	VL	0.03 to 0.1

Low	L	0.1 to 0.3
Medium	M	0.3 to 1
High	H	1 to 3
Very High	VH	3 to 10
Extremely High	EH	>10

- Diametral Point Load Index test
- Axial Point Load Index test

### DEFECT SPACING/BEDDING THICKNESS

Measured at right angles to defects of same set or bedding.

Term	Defect Spacing	Bedding
Extremely closely spaced	<6 mm	Thinly Laminated
Very closely spaced	6 to 20 mm	Laminated
Closely spaced	20 to 60 mm	Very Thin
Moderately widely spaced	0.06 to 0.2 m	Thin
Widely spaced	0.2 to 0.6 m	Medium
Very widely spaced	0.6 to 2 m	Thick
	>2 m	Very Thick

### DEFECT DESCRIPTION

Type:	Definition:
B	Bedding
BP	Bedding Parting
F	Fault
C	Cleavage
J	Joint
SZ	Shear Zone
CZ	Crushed Zone
DB	Drill Break

Planarity:	Roughness:
P – Planar	R – Rough
Ir – Irregular	S – Smooth
St – Stepped	Sl – Slickensides
U – Undulating	Po – Polished

Coating or Infill:	Description
Clean	No visible coating or infilling
Stain	No visible coating or infilling but surfaces are discoloured by mineral staining
Veneer	A visible coating or infilling of soil or mineral substance but usually unable to be measured (<1mm). If discontinuous over the plane, patchy veneer
Coating	A visible coating or infilling of soil or mineral substance, >1mm thick. Describe composition and thickness

The inclinations of defects are measured from perpendicular to the core axis.

## Graphic Symbols for Soil and Rock

Graphic symbols used on borehole and test pit reports for soil and rock are as follows. Combinations of these symbols may be used to indicate mixed materials such as clayey sand.

### Soil Symbols

#### Main Components

	CLAY
	SILT
	SAND
	GRAVEL
	BOULDERS / COBBLES
	PEAT (Organic)

#### Minor Components

	Clayey
	Silty
	Sandy
	Gravelly

### Other Symbols

	TOPSOIL
	FILL
	ASPHALT
	CONCRETE
	NO CORE

### Rock Symbols

#### Sedimentary Rocks

	SANDSTONE
	SILTSTONE
	CLAYSTONE, MUDSTONE
	SHALE
	LAMINITE
	CONGLOMERATE
	BRECCIA
	TILL
	COAL
	LIMESTONE

#### Igneous Rocks

	PLUTONIC IGNEOUS (eg. Granite)
	VOLCANIC IGNEOUS (eg. Basalt)
	PYROCLASTIC IGNEOUS (eg. Ignimbrite)

#### Metamorphic Rocks

	SLATE, PHYLLITE, SCHIST
	GNEISS
	QUARTZITE

## Engineering classification of shales and sandstones in the Sydney Region - A summary guide

The Sydney Rock Class classification system is based on rock strength, defect spacing and allowable seams as set out below. All three factors must be satisfied.

### CLASSIFICATION FOR SANDSTONE

Class	Uniaxial Compressive Strength (MPa)	Defect Spacing (mm)	Allowable Seams (%)
I	>24	>600	<1.5
II	>12	>600	<3
III	>7	>200	<5
IV	>2	>60	<10
V	>1	N.A.	N.A.

### CLASSIFICATION FOR SHALE

Class	Uniaxial Compressive Strength (MPa)	Defect Spacing (mm)	Allowable Seams (%)
I	>16	>600	<2
II	>7	>200	<4
III	>2	>60	<8
IV	>1	>20	<25
V	>1	N.A.	N.A.

#### 1. ROCK STRENGTH

For expedience in field/construction situations the uniaxial (unconfined) compressive strength of the rock is often inferred, or assessed using the point load strength index ( $Is_{50}$ ) test (AS 4133.4.1 - 1993). For Sydney Basin sedimentary rocks the uniaxial compressive strength is typically about 20 x ( $Is_{50}$ ) but the multiplier may range from about 10 to 30 depending on the rock type and characteristics. In the absence of UCS tests, the assigned Sydney Rock Class classification may therefore include rock strengths outside the nominated UCS range.

#### 2. DEFECT SPACING

The terms relate to spacing of natural fractures in NMLC, NQ and HQ diamond drill cores and have the following definitions:

Defect Spacing (mm)	Terms Used to Describe Defect Spacing <sup>1</sup>
>2000	Very widely spaced
600 – 2000	Widely spaced
200 – 600	Moderately spaced
60 – 200	Closely spaced
20 – 60	Very closely spaced
<20	Extremely closely spaced

<sup>1</sup> After ISO/CD14689 and ISRM.

#### 3. ALLOWABLE SEAMS

Seams include clay, fragmented, highly weathered or similar zones, usually sub-parallel to the loaded surface. The limits suggested in the tables relate to a defined zone of influence. For pad footings, the zone of influence is defined as 1.5 times the least footing dimension. For socketed footings, the zone includes the length of the socket plus a further depth equal to the width of the footing. For tunnel or excavation assessment purposes the defects are assessed over a length of core of similar characteristics.

Source: Based on Pells, P.J.N, Mostyn, G. and Walker, B.F. (1998) – Foundations on sandstone and shale in the Sydney region. Australian Geomechanics Journal, No 33 Part 3

# APPENDIX D

---

## RESULTS OF DYNAMIC CONE PENETROMETER(DCP) TEST


---

© ESWNMAN Pty Ltd



Document Set ID: 35918700  
Version: 1, Version Date: 25/02/2022



RESULTS OF DYNAMIC CONE PENETROMETER TEST									
 <b>ESWNMAN</b> 25 YEARS EXPERIENCE		Client:		Mr Andrew Jouana c/- Studio Panetta		Ref No:		ESWN-PR-2021-1156	
		Project:		Geotechnical Investigation		Date Tested:		14/01/2022	
		Location:		78 Evans Street, Rozelle, NSW 2039		Tested By:		J.L.	
Depth (mm)	DCP No.				Depth (mm)	DCP No.			
	DCP1	DCP2	DCP3	DCP4		5	6	7	8
0-100	Planter box	Paver	Paver	Paver	0-100				
100-200		3	4	4	100-200				
200-300	1	1	2	5	200-300				
300-400	6	2	4	6	300-400				
400-500	1	2	8	7	400-500				
500-600	2	8	13	4	500-600				
600-700	3	7	4	2	600-700				
700-800	2	9	8	6	700-800				
800-900	2	Bounce	3/10mm	8/40mm	800-900				
900-1000	2		Bounce	Bounce	900-1000				
1000-1100	9				1000-1100				
1100-1200	20				1100-1200				
1200-1300	3				1200-1300				
1300-1400	Bounce				1300-1400				
1400-1500					1400-1500				
1500-1600					1500-1600				
1600-1700					1600-1700				
1700-1800					1700-1800				
1800-1900					1800-1900				
1900-2000					1900-2000				
2000-2100					2000-2100				
2100-2200					2100-2200				
2200-2300					2200-2300				
2300-2400					2300-2400				
2400-2500					2400-2500				
2500-2600					2500-2600				
2600-2700					2600-2700				
2700-2800					2700-2800				
2800-2900					2800-2900				
3000-3100					3000-3100				
3100-3200					3100-3200				
3200-3300					3200-3300				
3300-3400					3300-3400				
3400-3500					3400-3500				
3500-3600					3500-3600				
3600-3700					3600-3700				
3700-3800					3700-3800				
3800-3900					3800-3900				
3900-4000					3900-4000				
RL (m)	21.2	21.1	21.4	21.0	RL (m)				
Notes: DCP testing equipment designed and conducted in accordance with AS1289.6.3.2									

# APPENDIX E

---

## LIMITATIONS OF GEOTECHNICAL INVESTIGATION

---

© ESWNMAN Pty Ltd



Document Set ID: 35918700  
Version: 1, Version Date: 25/02/2022



**ESWNMAN PTY LTD**  
ABN 70 603 089 630  
**Limitations of Geotechnical Investigation**

### **General**

In making an assessment of a site from a limited number of boreholes or test pits there is the possibility that variations may occur between testing locations. Site exploration identifies specific subsurface conditions only at those points from which samples have been taken. The risk that variations will not be detected can be reduced by increasing the frequency of testing locations. The investigation program undertaken is a professional estimate of the scope of investigation required to provide a general profile of the subsurface conditions. The data derived from the site investigation program and subsequent laboratory testing are extrapolated across the site to form an inferred geological model and an engineering opinion is rendered about overall subsurface conditions and their likely behaviour with regard to the proposed development. Despite investigation the actual conditions at the site might differ from those inferred to exist, since no subsurface exploration program, no matter how comprehensive, can reveal all subsurface details and anomalies.

The borehole/test pit logs are the subjective interpretation of subsurface conditions at a particular location, made by trained personnel. The interpretation may be limited by the method of investigation, and cannot always be definitive.

### **Subsurface conditions**

Subsurface conditions may be modified by changing natural forces or man-made influences. A geotechnical report is based on conditions which existed at the time of subsurface exploration.

Construction operations at or adjacent to the site, and natural events such as rainfall events, floods, or groundwater fluctuations, may also affect subsurface conditions, and thus the continuing adequacy of a geotechnical report. The geotechnical engineer should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

### **Assessment and interpretation**

A geotechnical engineer should be retained to work with other appropriate design professionals explaining relevant geotechnical findings and in reviewing the adequacy of their drawings/plans and specifications relative to geotechnical issues.

### **Information and documentations**

Final logs are developed by geotechnical engineers based upon their interpretation of field description and laboratory results of field samples. Customarily, only the final logs are included in geotechnical engineering reports. These logs should not under any circumstances be redrawn for inclusion in architectural or other design drawings. To minimise the likelihood of bore/profile log misinterpretation, contractors should be given access to the complete geotechnical engineering report prepared or authorised for their use. Providing the best available information to contractors helps prevent costly construction problems.

### **Construction phase service (CPS)**

During construction, excavation is frequently undertaken which exposes the actual subsurface conditions. For this reason geotechnical consultants should be retained through the construction stage, to identify variations if they are exposed and to conduct additional tests which may be required and to deal quickly with geotechnical problems if they arise.



**ESWNMAN PTY LTD**  
ABN 70 603 089 630  
**Limitations of Geotechnical Investigation**

---

### **Report**

The report has been prepared for the benefit of the client and no other parties. ESWNMAN PTY LTD assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of ESWNMAN PTY LTD or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters.

### **Other limitations**

ESWNMAN PTY LTD will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.