

BOLAND STREET *accommodation*



PLANNING EXHIBITED DOCUMENTS

Ref. No: DA 0155/2017

Date advertised: 11/10/2017

Planning Administration

Dryds

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TAMAR STREET



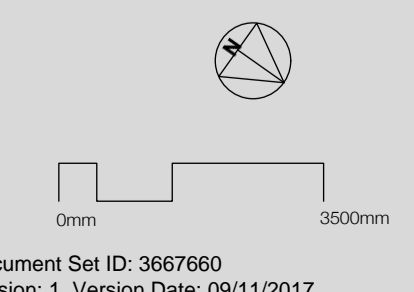
Location plan
Scale: 1:1000



ADJACENT BUILDING

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S. architecture development strategic design

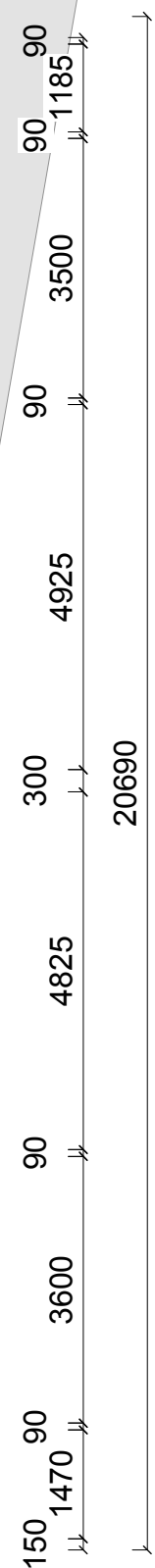
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PROJECT ID	DATE	DESCRIPTION	Response to DA 691
4-6 Boland St / 13 Tamar Street	29/8/17		
CLIENT	Beecroft	SCALE @ A1	1:100
DWG		DRAWN	SG
CHKD		PROJECT #	J002464
		ISSUE	DA1
		DWG #	A02

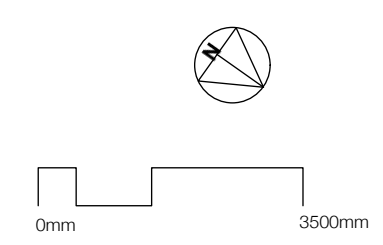
TAMAR STREET



1 Site Section
 Scale: 1:200



BOLAND STREET



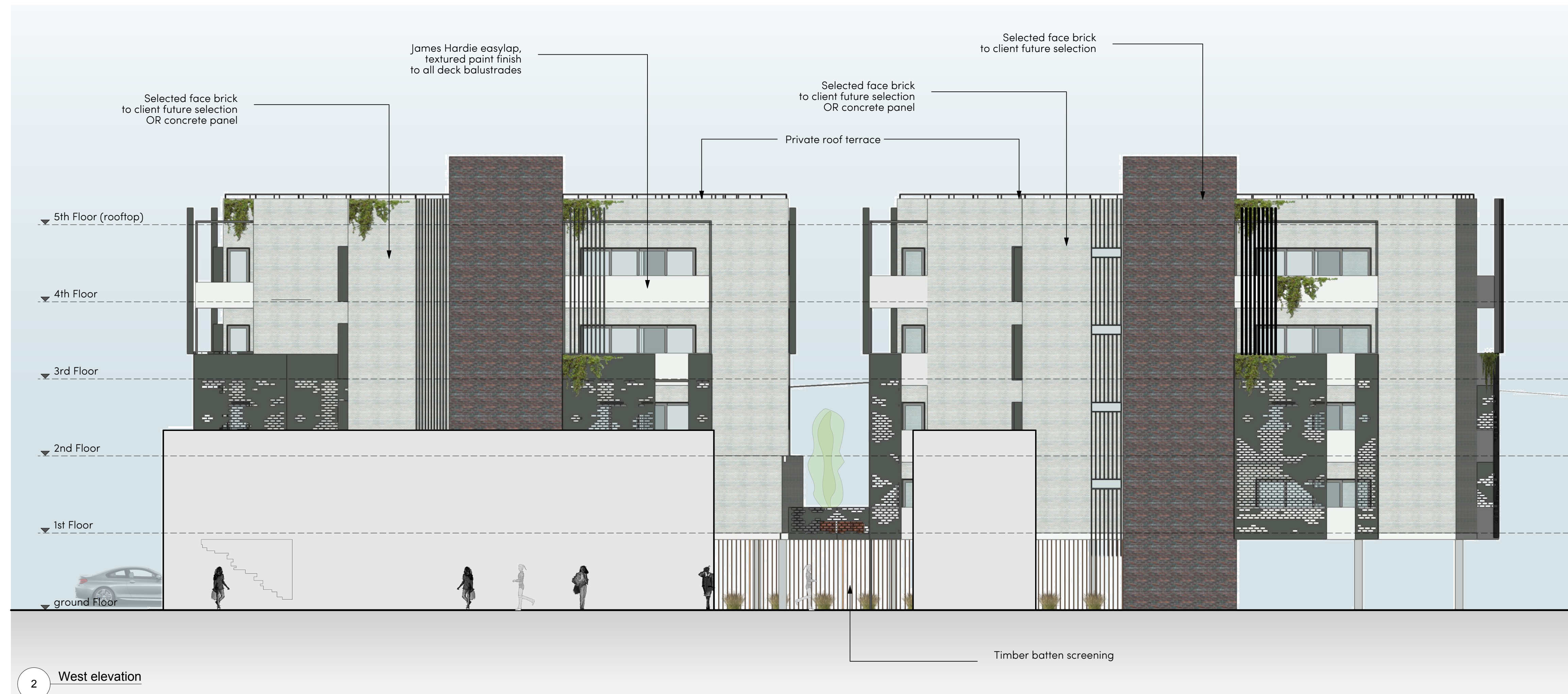
FIRST FLOOR PLAN

REVISION	DATE	DESCRIPTION	Response to RFI
ADDRESS			4-6 Boland St / 13 Tamar Street
CLIENT			Becroft
DRAWN			SG
CHECKED			SH
SCALE (A1)	1:100	DWG #	A03
PROJECT #			J002464





1 North elevation

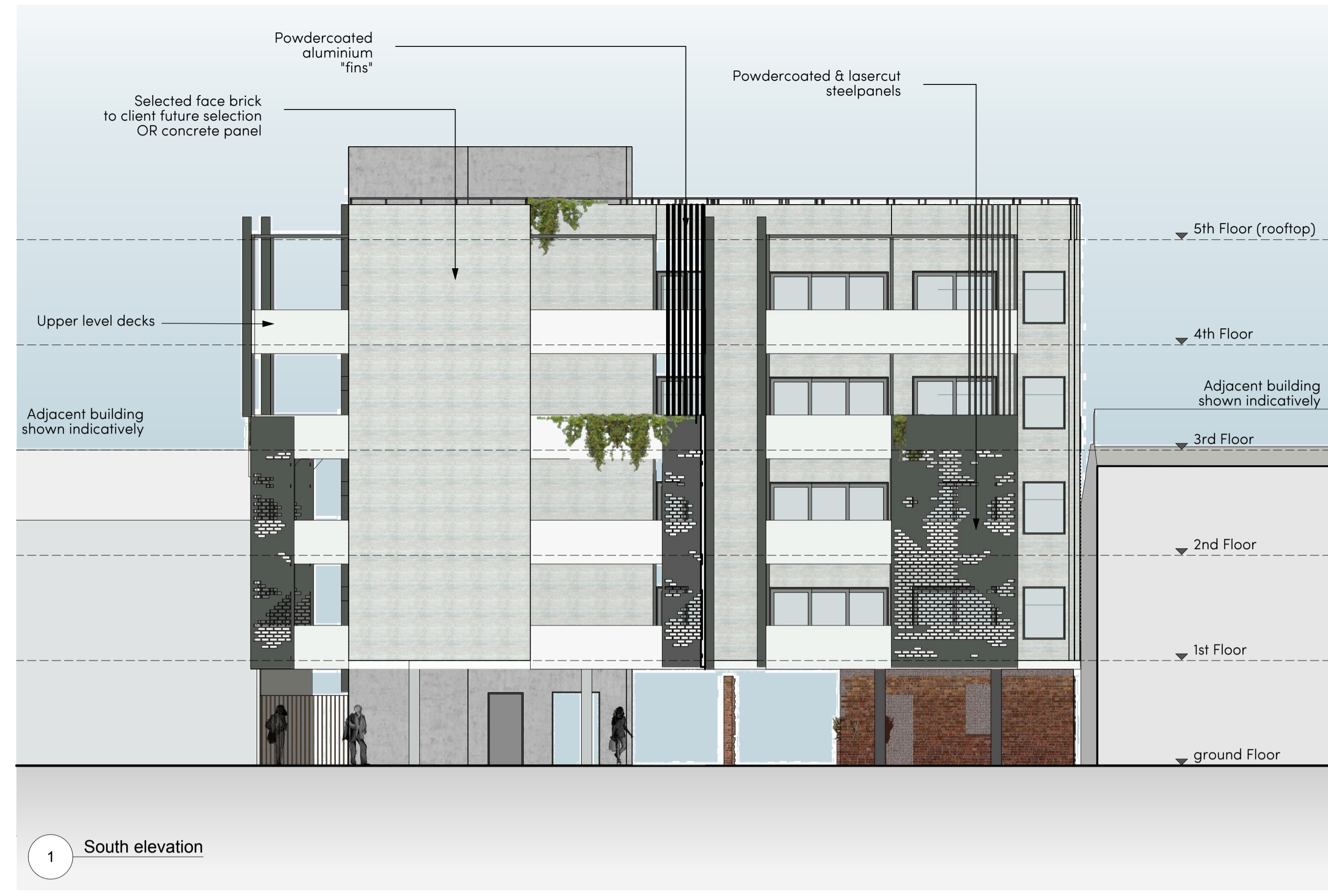


2 West elevation

NOTE: ALL ADJACENT STRUCTURES SHOWN INDICATIVELY
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 ALL COLOURS TO FUTURE SELECTION, COMPLEMENTARY AND
 RESPONSIVE TO SURROUNDINGS
 BATTER TO COMPLY WITH NCC
 GROUND LEVELS SHOWN INDICATIVELY, ENSURE FINISH SURFACE
 FALLS AWAY FROM STRUCTURE.

REVISION ID	DATE	DESCRIPTION	Response to DA #11
ADDRESS	4-6 Boland St / 13 Tamar Street		
CLIENT	Beecroft		
DWG	Elevations 01		
SCALE @ A4	1:100	ISSUE	DA1
DRAWN	SG	DWG #	A04
CHECK	SH	PROJECT #	J002464

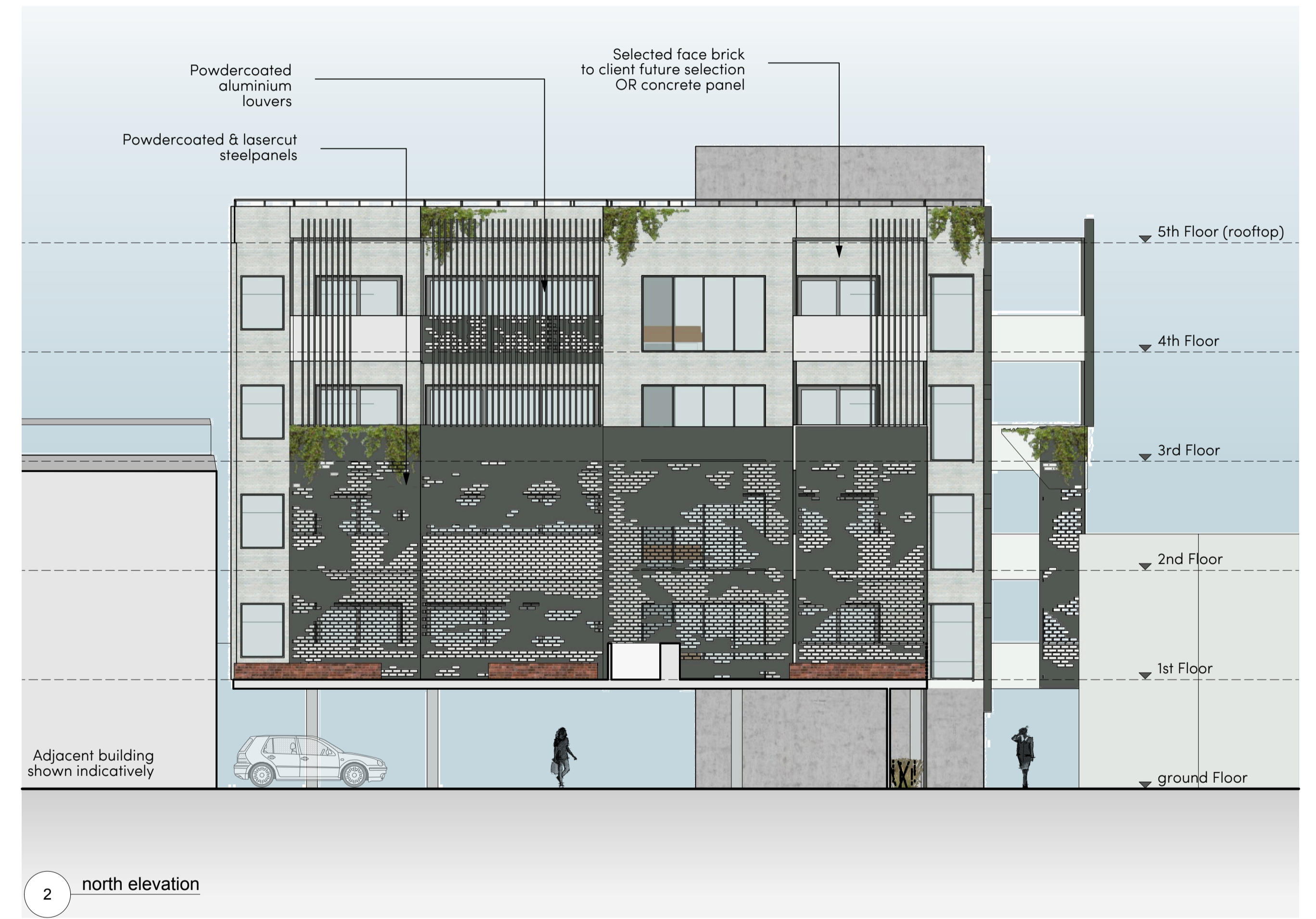
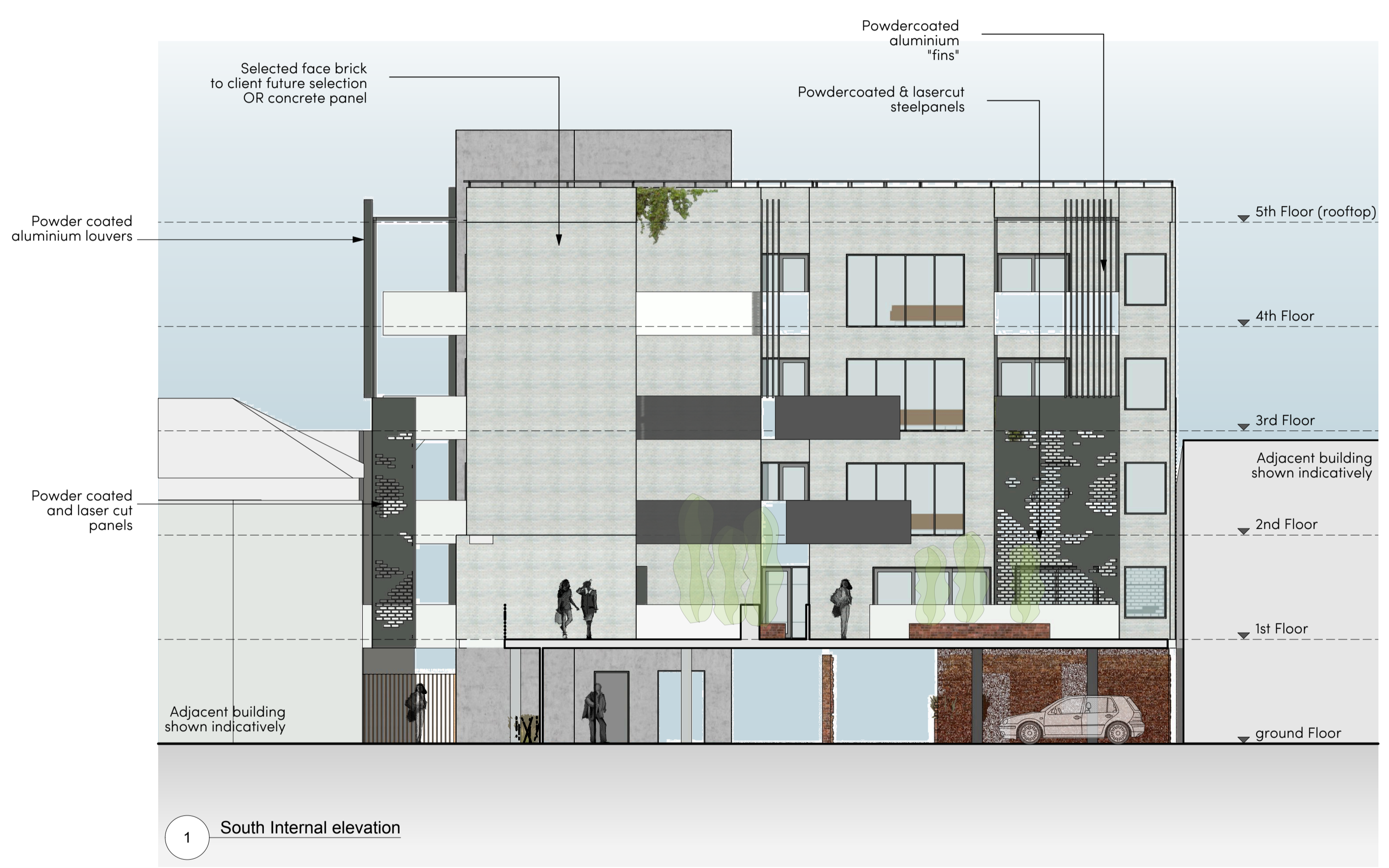




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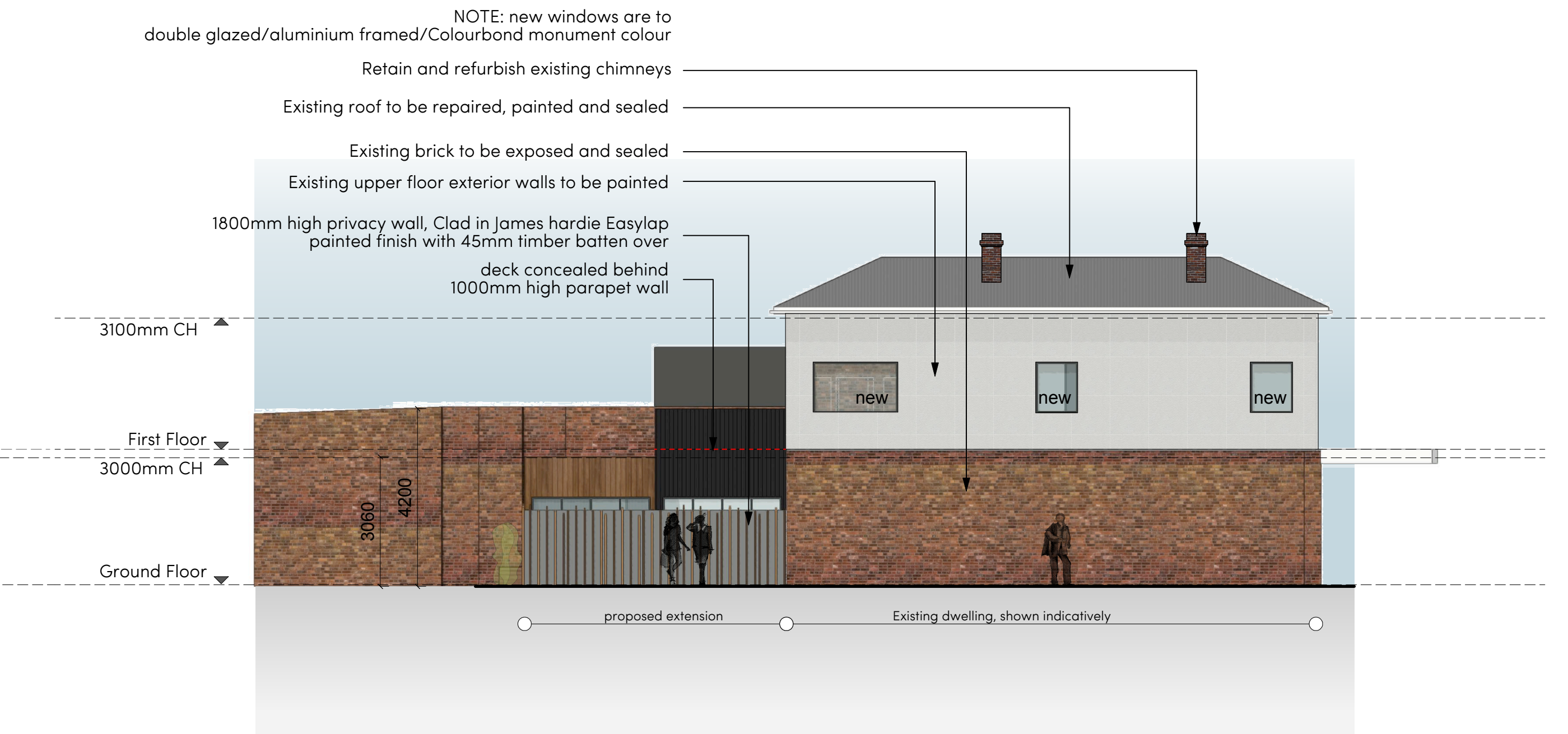
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WEST
TAMAR STREET RENOVATION/EXTENSION

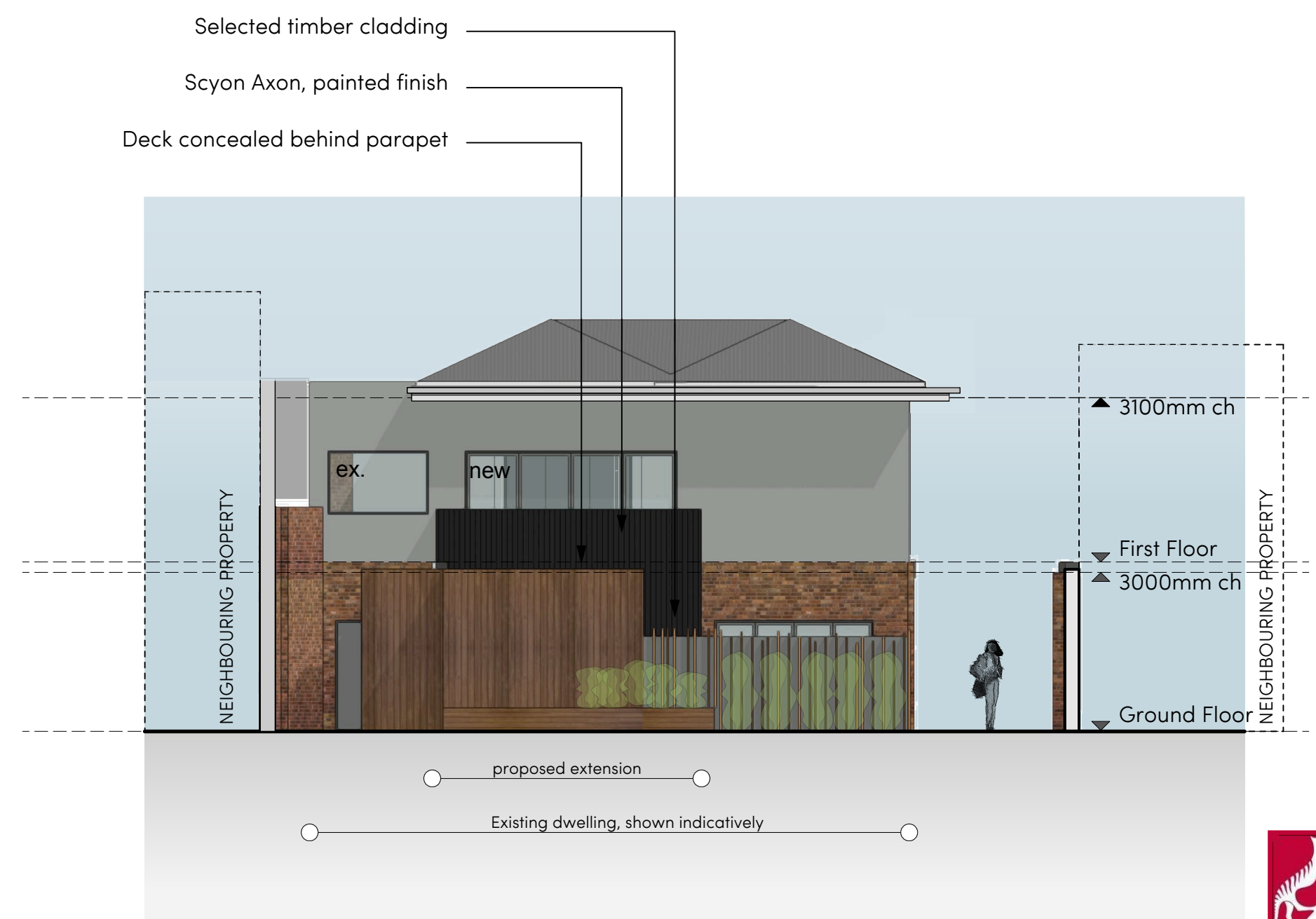


NORTH
TAMAR STREET RENOVATION/EXTENSION



TAMAR STREET 13 TAMAR STREET PROPOSED FLOOR PLAN
SCALE 1:100

13 TAMAR STREET PROPOSED FLOOR PLAN 1:100



EAST
TAMAR STREET RENOVATION/EXTENSION

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Date advertised: 11/10/2017

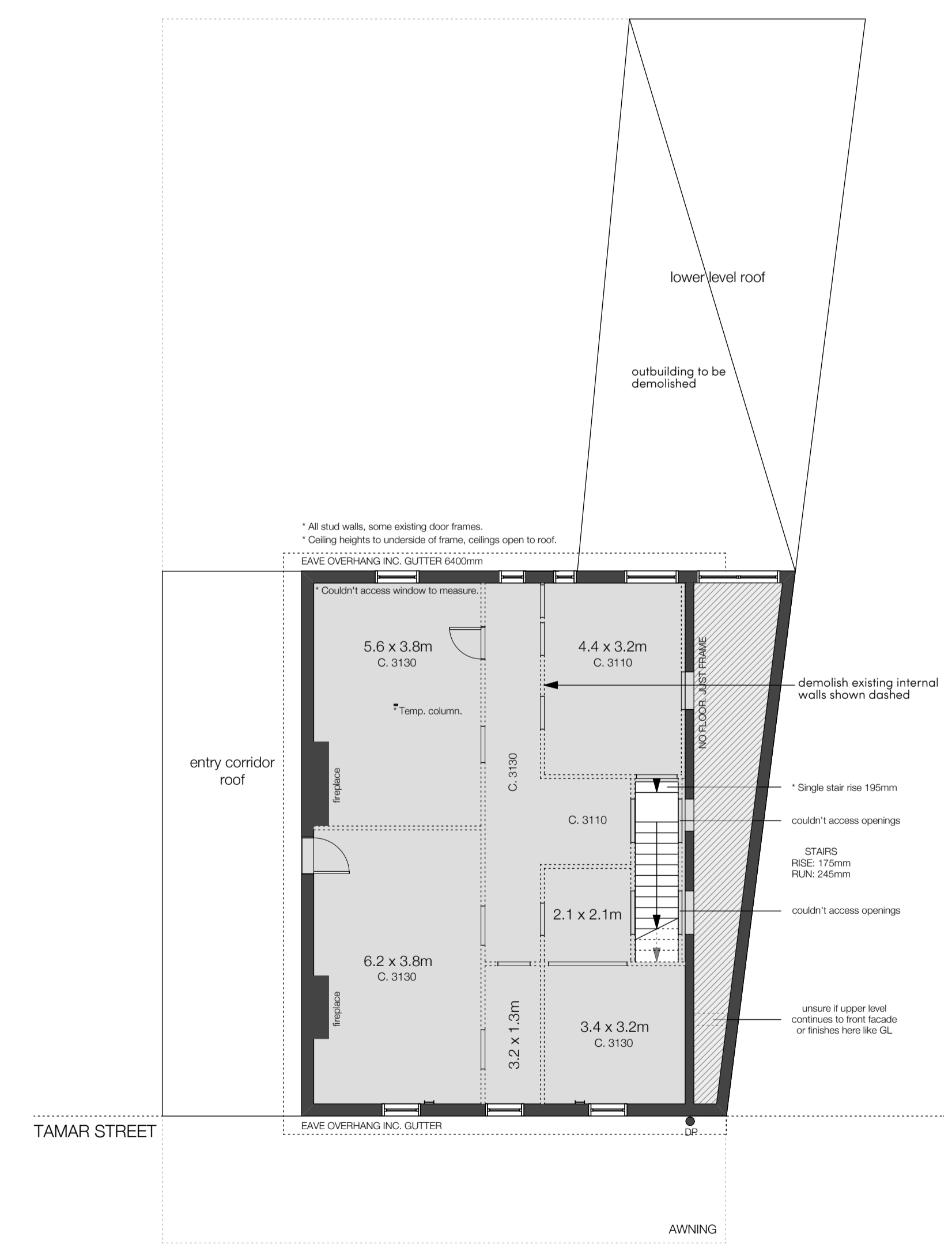
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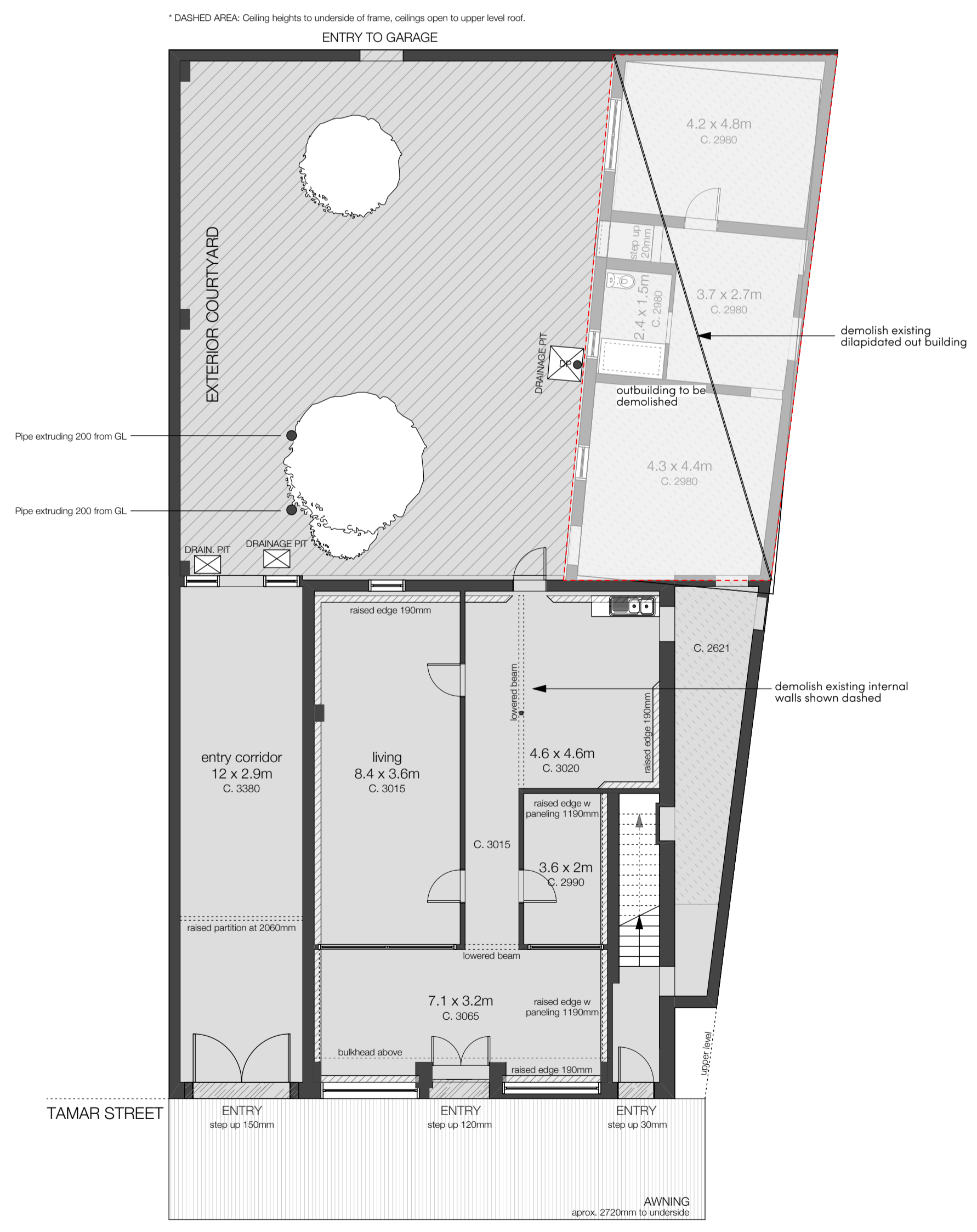
S. architecture development strategic design	REVISION	DATE	DESCRIPTION	Response to SFI
	ADDRESS	4-6 Boland St / 13 Tamar Street	SCALE @A1	1:100
	CLIENT	Beecroft	DRAWN	SG
	DWG	13 Tamar Street Proposed	CHKD	SH

ISSUE DA1
DWG # A07
PROJECT # 002464

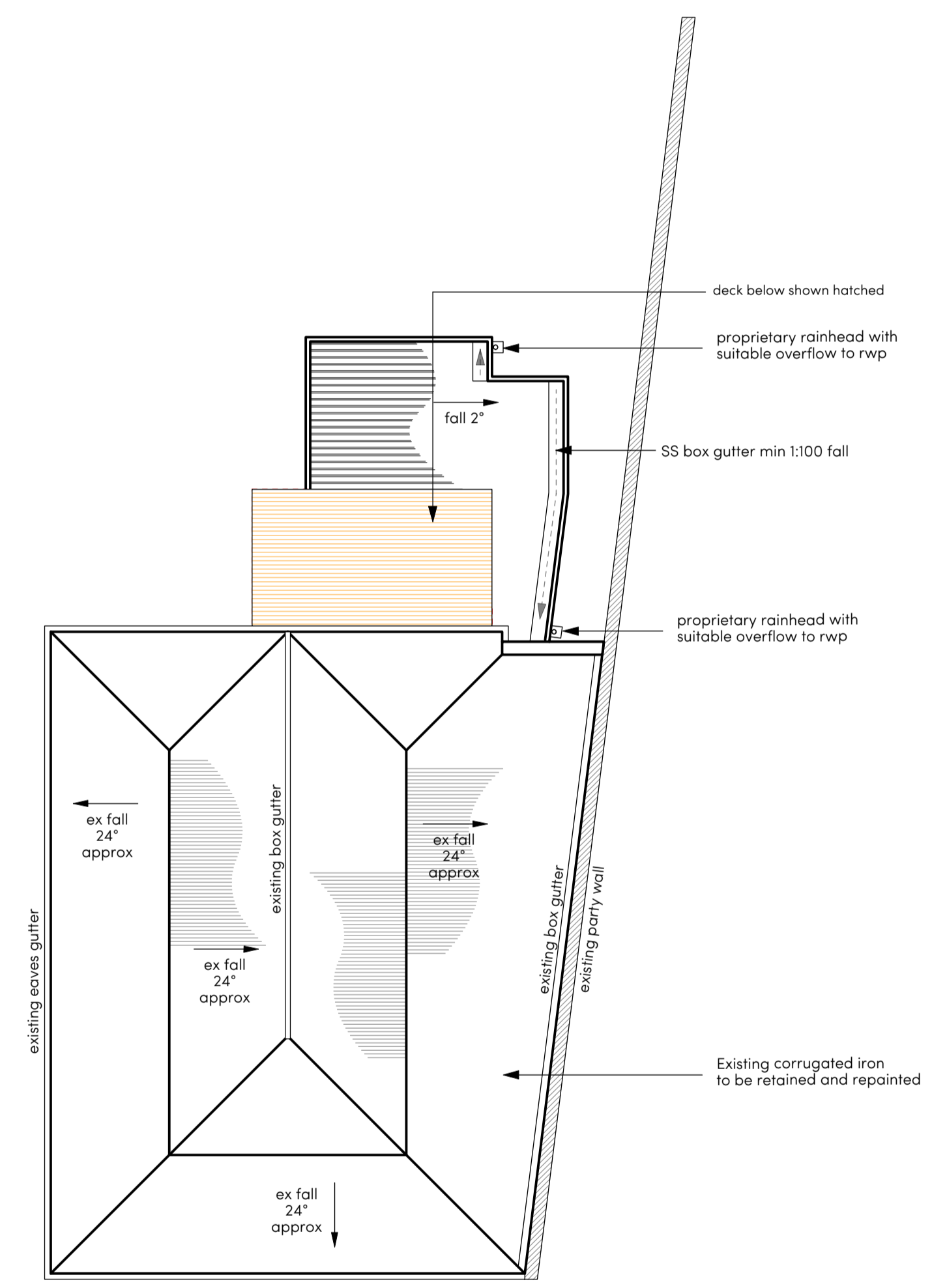
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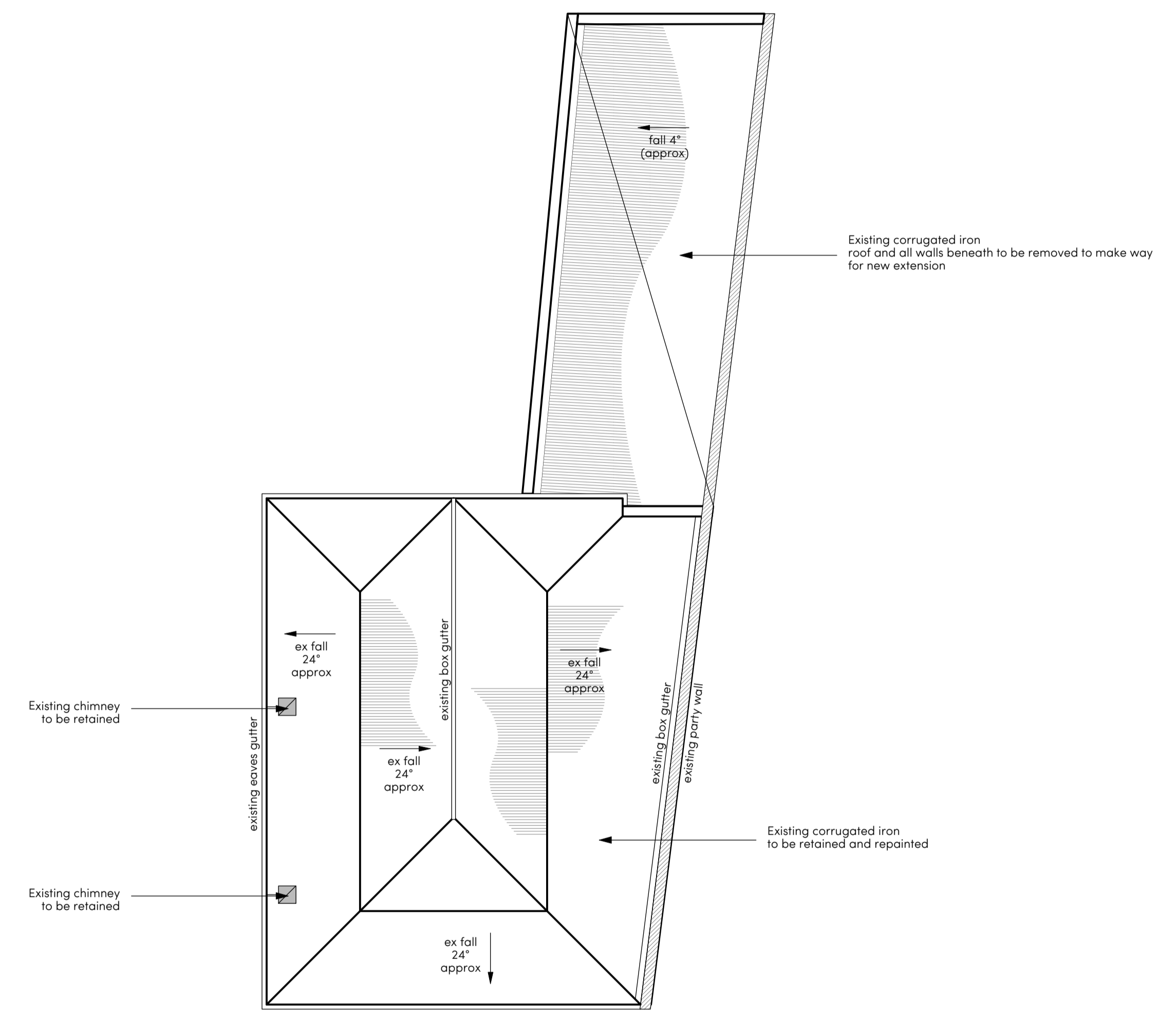
13 TAMAR STREET EXISTING UPPER FLOOR PLAN 1:100



13 TAMAR STREET EXISTING LOWER FLOOR PLAN 1:100



PROPOSED ROOF PLAN 1:100



EXISTING ROOF PLAN 1:100

Tamar Street

existing buildings below

existing buildings below

adjacent building below

Tamar St tenancy below

BOLAND STREET

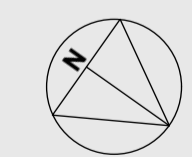
Boland Street



proposed roof garden terrace South building

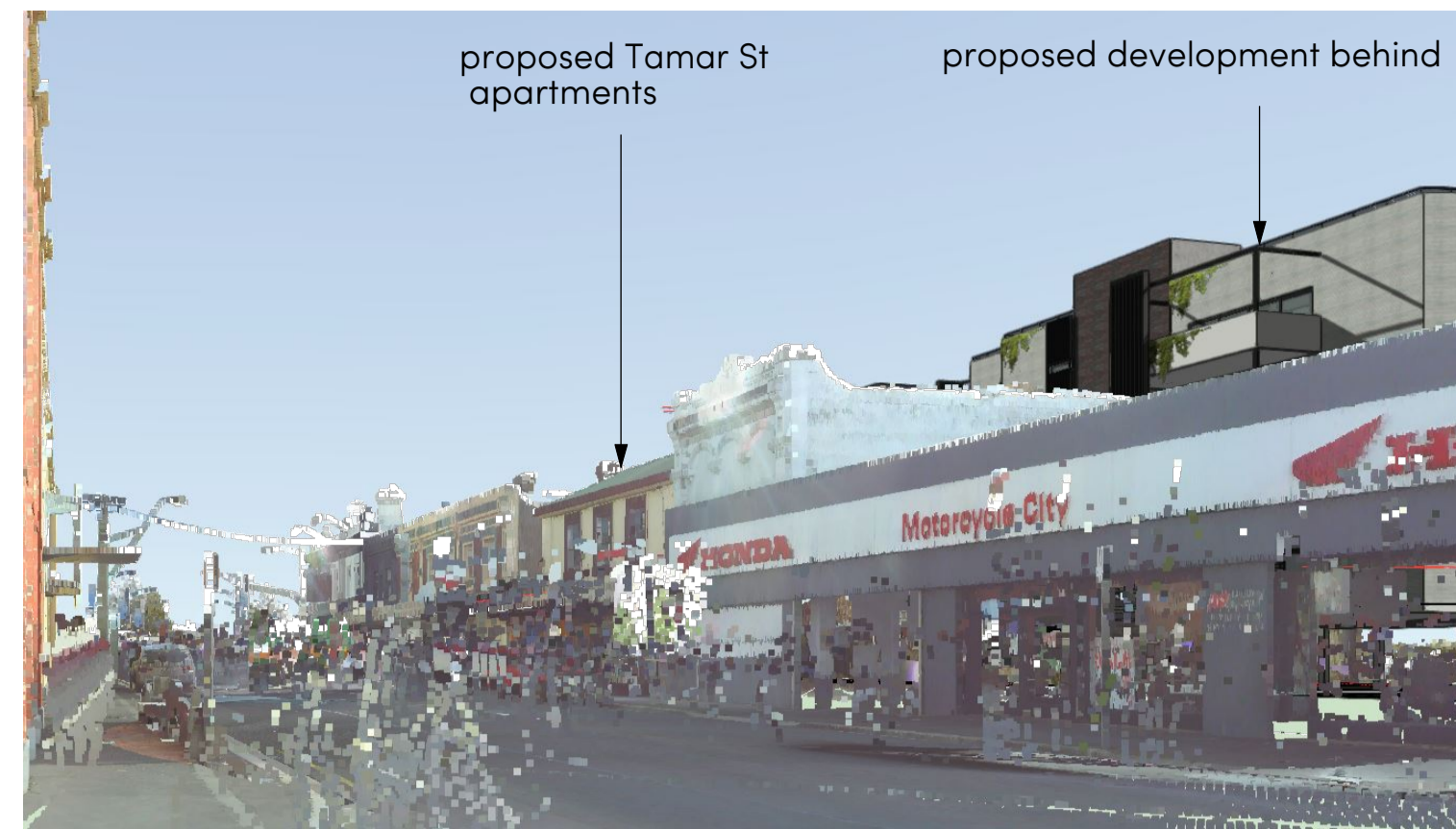
proposed roof garden terrace South building
 adjacent building below

existing buildings below





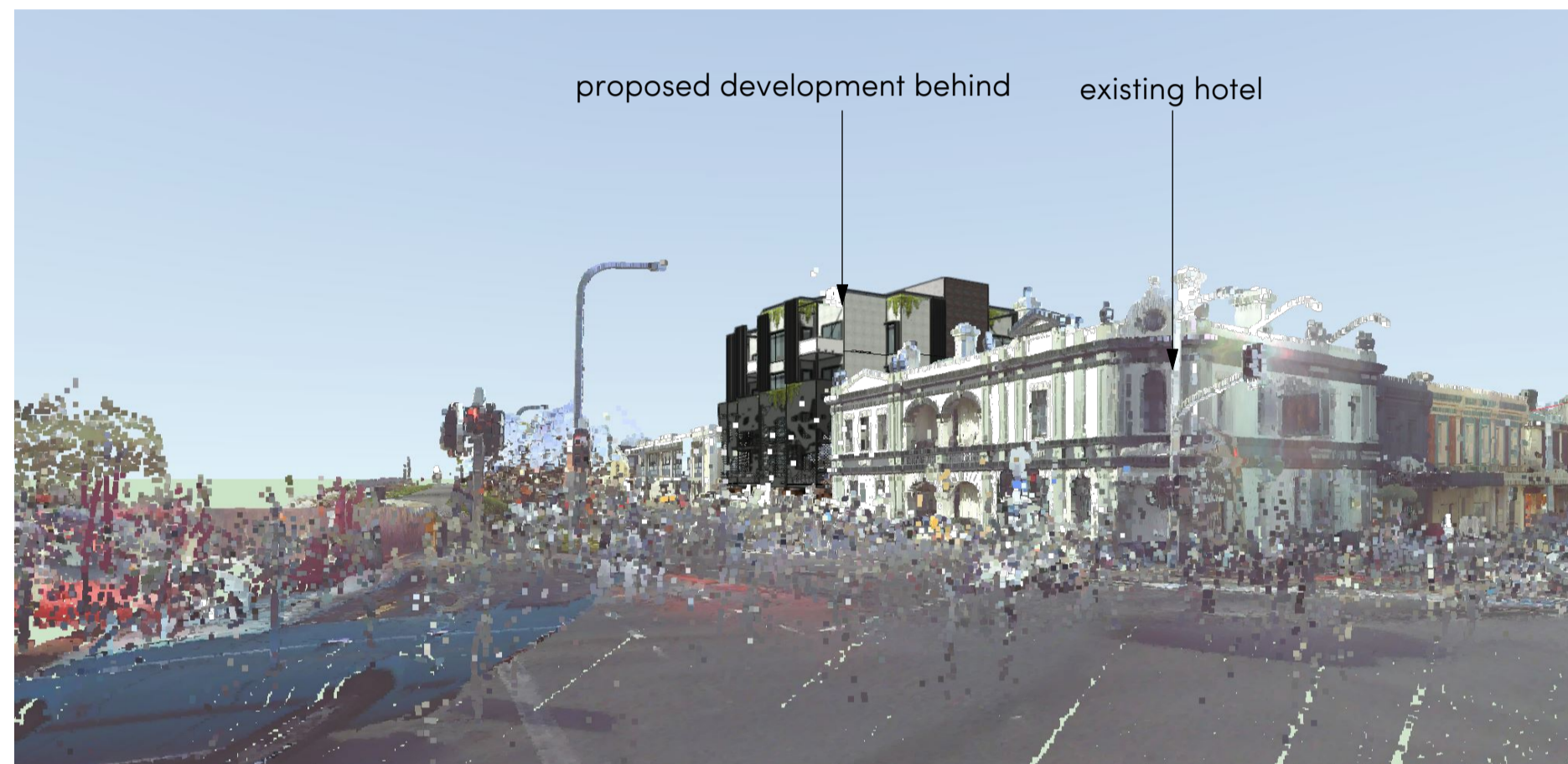
view from Tamar St outside brewery



view from Tamar St towards Boland St



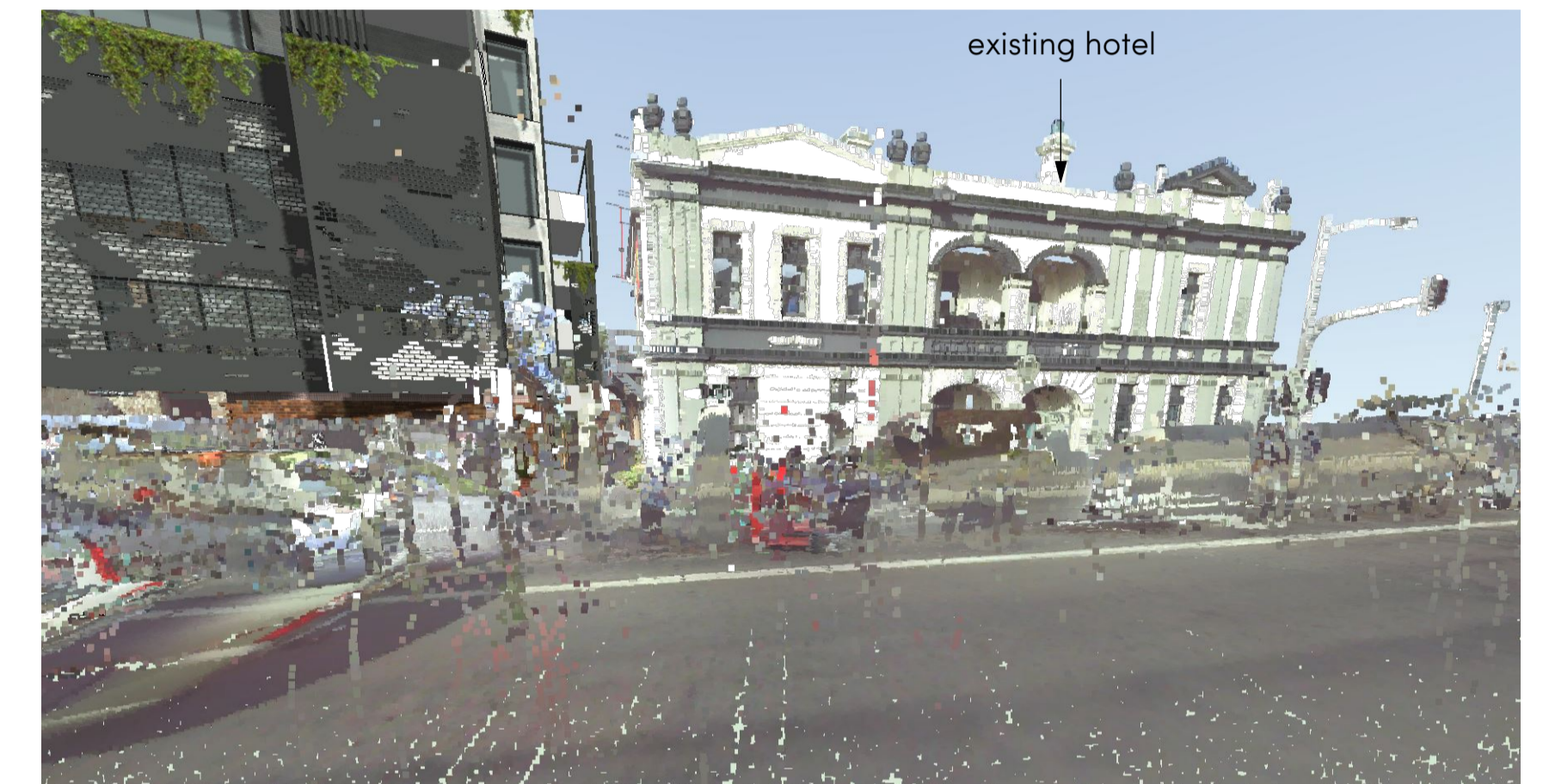
view from Tamar St to proposed apartments



view from corner Esplanade and Tamar St towards Boland St



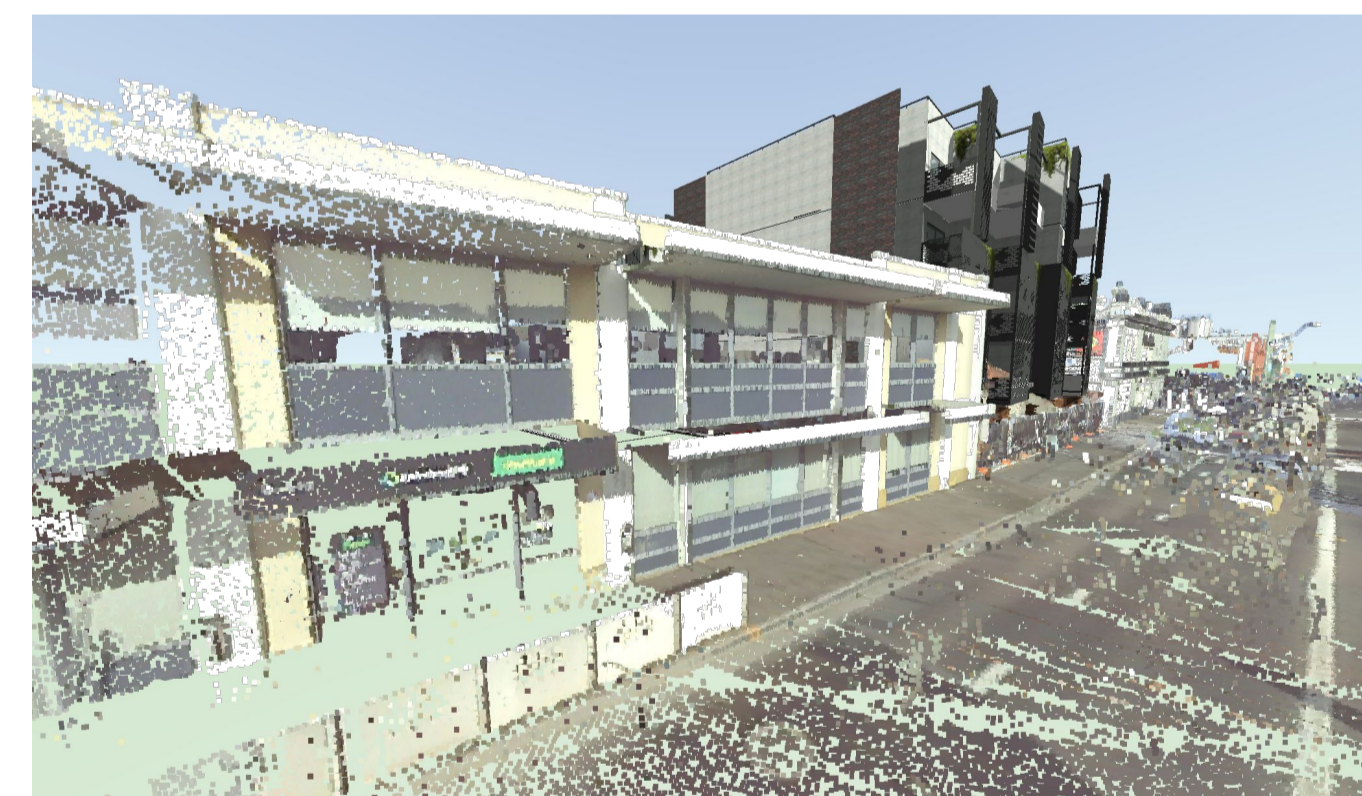
aerial view to laneway



street view to laneway



view from levee bank towards Tamar St



view towards Tamar St



view levee bank opposite



view from Tamar St bridge



view from Esplanade to Boland St

Images generated from
3D Point Cloud Scan

		REVISION ID DATE DESCRIPTION RESPONSE TO DA # ADDRESS 4-6 Boland St / 13 Tamar Street ISSUE DA1 CLIENT Beecroft SCALE @ A1 N/A DWG # A001 DWG Additional Drawing page 1 DRAWN SG PROJECT # J002464 CHKD BH	
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Boland Street Apartments 4-6 Boland Street, Launceston Traffic Impact Assessment

transport | community | mining | industrial | food & beverage | carbon & energy



Prepared for:

S. Group

Client representative:

Samuel Haberle

Date:

30 June 2017

Rev 03

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Appendices


Appendix A: Existing SIDRA Intersection Results
Appendix B: Development Concept Plans
Appendix C: Loading Vehicle Swept Path

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Date: 30 June 2017

Authorised by: 
Ross Mannering

Date: 30 June 2017

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00	Traffic Impact Assessment	R. Giana	R. Mannering	R. Mannering	22/12/2016
01	Traffic Impact Assessment (amendments to plans)	R. Giana	R. Mannering	R. Mannering	31/03/2017
02	Traffic Impact Assessment (amendments to plans)	R. Giana	R. Mannering	R. Mannering	06/04/2017
03	Traffic Impact Assessment	R. Giana	R. Mannering	R. Mannering	30/06/2017

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1. Introduction

It is understood that a Development Application is to be lodged with Launceston City Council for proposed residential apartments to be located at 4-6 Boland Street and 13 Tamar Street in Launceston.

The development will include a ground floor car park to be accessed from Boland Street and a ground floor apartment to be accessed from Tamar Street. Four floors of apartments will be located above the car park and one apartment will be located above the Tamar Street side. There is potential for a retail tenancy on the Tamar Street side ground level in the future.

S. Group engaged **pitt&sherry** to undertake a Traffic Impact Assessment (TIA) for this development.

This report has been prepared in accordance with the Department of State Growth's *Framework for Undertaking Traffic Impact Assessments* and details the findings of the traffic assessment undertaken for the proposed development.

2. Existing Conditions

2.1 Site Location

The site is located at 4-6 Boland Street and 13 Tamar Street in Launceston and fronts Boland Street and Tamar Street. The north Esk River is located directly opposite the site on Boland Street. The site has a land use classification as 15 – Urban Mixed Use and currently comprises of vacant buildings.

Surrounding properties generally have commercial uses. The University of Tasmania (UTAS) Inveresk Campus is located across the North Esk River to the north of the site. Launceston City Park is located approximately 200 metres to the south of the site and the Launceston CBD is approximately 500 metres south of the site. The location of the site in the local context is shown in Figure 1.

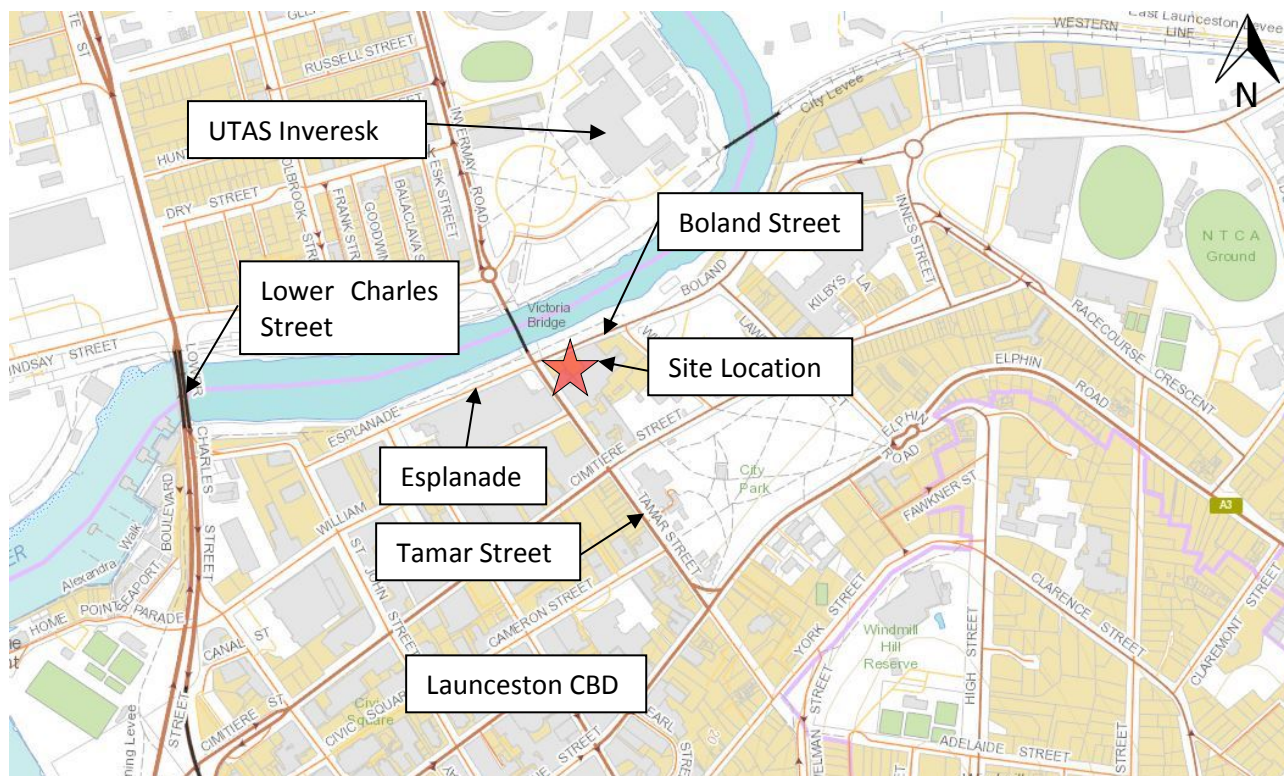


Figure 1: Site Location (Basemap source: www.thelist.tas.gov.au)

2.2 Surrounding Road Network

2.2.1 Boland Street

Boland Street operates as a minor collector road and runs in an east west direction. Boland Street connects the site with suburbs to the west. To the west of the Tamar Street intersection Boland Street becomes Esplanade. Esplanade connects the site with Lower Charles Street. In the vicinity of the site Boland Street is a two-way street with one lane in each direction.

Kerbside car parking is not permitted outside the site on Boland Street, however parking is permitted on Esplanade and on Willis Street to the east of the site. The default speed limit of 50km/h applies to Boland Street.

2.2.2 Tamar Street

Tamar Street operates as a major collector Road and runs in a north south direction. To the south Tamar Street connects to East Launceston. To the north Tamar Street crosses the North Esk River and connects to Invermay Road providing access to the UTAS Inveresk Campus and Aurora Stadium and then further to the northern suburbs. In the vicinity of the site Tamar Street is a two-way street with one lane in each direction.

Time restricted kerbside parking is permitted on Tamar Street outside the site but is not permitted on the bridge to the north. The default speed limit of 50km/h applies to Tamar Street.

2.2.3 Boland Street/ Tamar Street/ Esplanade Intersection

The signalised Boland Street/ Tamar Street/ Esplanade intersection is located close to the site. Photos of Tamar Street and Boland Street at the intersection are shown in Figure 2 and Figure 3.



Figure 2: Boland Street/ Tamar Street/ Esplanade Intersection (facing south to Tamar Street)



Figure 3: Boland Street/ Tamar Street/ Esplanade Intersection (facing east to Boland Street)

2.3 Traffic Volumes and Existing Intersection Operation

A traffic survey was undertaken by Matrix Traffic and Transport Data at the Boland Street/ Tamar Street/ Esplanade intersection during the following periods:

- Wednesday 24 August 2016 7:30am to 9:30am
- Wednesday 24 August 2016 3:30pm to 5:30pm.

It was determined from the traffic data that the AM peak occurs between 8:15am and 9:15am and the PM peak occurs between 4:30pm and 5:30pm.

A summary of the AM and PM peak hour traffic volumes are shown in Figure 4 and Figure 5.

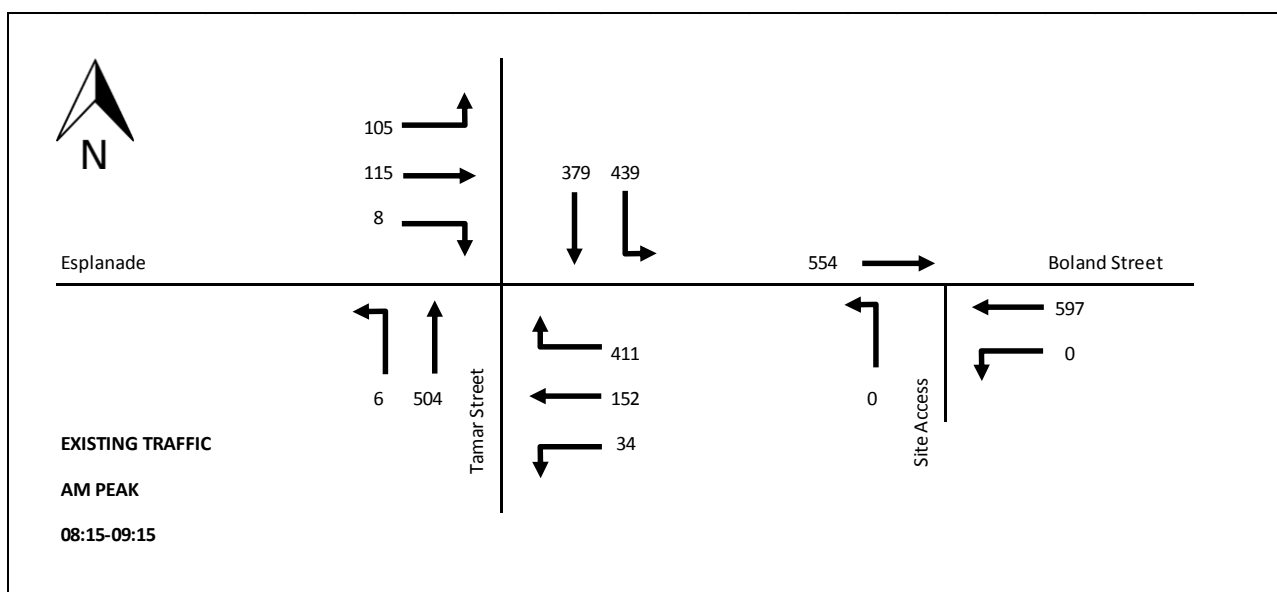


Figure 4: Traffic Volumes – Existing AM

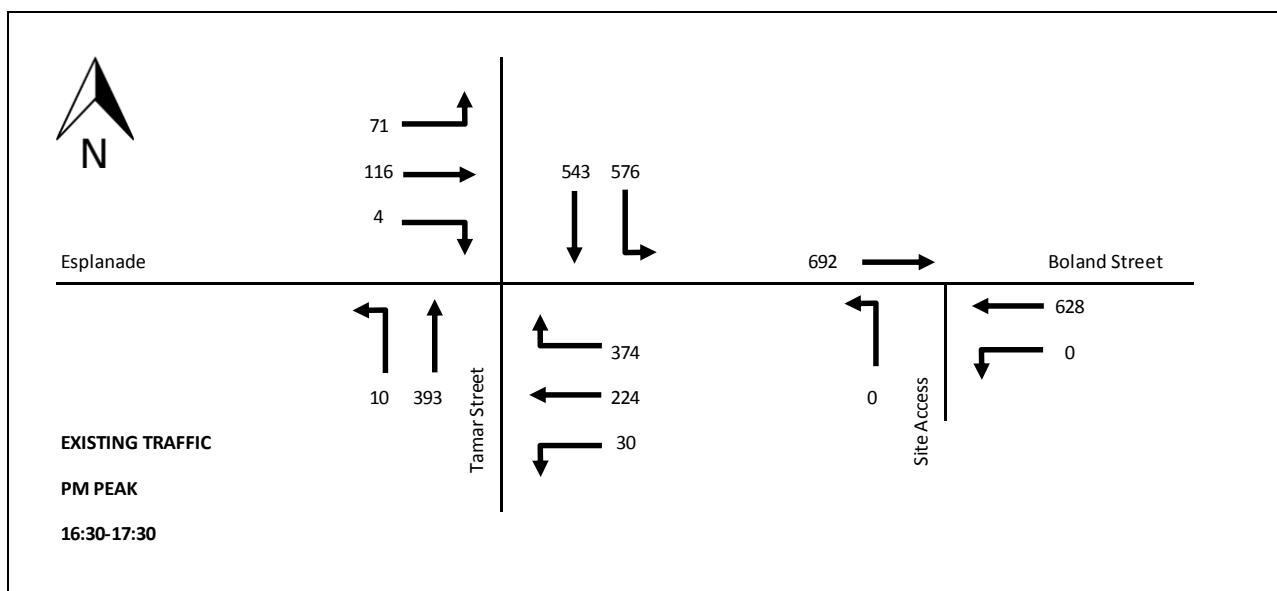


Figure 5: Traffic Volumes – Existing PM

The traffic operation at the Boland Street/ Tamar Street/ Esplanade intersection has been assessed using SIDRA INTERSECTION.

The intersection performance is based on the vehicle delay and the corresponding Level of Service (LOS). It is generally accepted that an intersection operates well if it is at LOS D or higher. Table 1 shows the criteria that SIDRA intersection adopts in assessing the LOS.

Table 1: SIDRA INTERSECTION Level of Service Criteria

LOS	Delay per Vehicle (secs)		
	Signals	Roundabout	Sign Control
A	10 or less	10 or less	10 or less
B	10 to 20	10 to 20	10 to 15
C	20 to 35	20 to 35	15 to 25
D	35 to 55	35 to 50	25 to 35
E	55 to 80	50 to 70	35 to 50
F	Greater than 80	Greater than 70	Greater than 50

It is noted that pedestrian volumes have also been considered in the SIDRA intersection modelling but would have minimal impacts on the traffic operation. The signalised intersections have been modelled to run pedestrian movements during all traffic signal phases which would be a worst case scenario.

Table 2 presents a summary of the existing operation of the Boland Street/ Tamar Street/ Esplanade intersection with full results presented in Appendix A.

Table 2: Existing Operating Conditions

Peak	Leg	Degree of Saturation (DOS)	Average Delay (secs)	95 th Percentile Queue (m)	LOS
AM	South	0.59	19	45	B
	East	0.70	13	54	B
	North	0.88	19	89	B
	West	0.90	35	53	D
	All Vehicles	0.90	19	89	B
PM	South	0.32	16	34	B
	East	0.72	17	66	B
	North	0.87	18	142	B
	West	0.91	42	54	D
	All Vehicles	0.91	19	142	B

On the basis of the above assessment, the intersection operates satisfactorily with acceptable queues and delays on all approaches.

2.4 Car Parking

As discussed, kerbside car parking is not permitted on Boland Street. A combination of 1 hour and ½ hour time restricted parking is permitted on Tamar Street in the vicinity of the site. Unrestricted car parking is permitted on Esplanade and Willis Street. The Council owned Inveresk car park is located within a 5 minute walk of the site.

2.5 Public Transport

The site is well service by public transport with Metro Tasmania bus stops located on William Street and Cimitiere Street within a 5 minute walk of the site. The stops provide frequent bus services to Invermay, Mowbray, Newnham and Ravenswood.

The site is located approximately 10 minutes walking distance from the Launceston City Interchange. All major bus routes in Launceston stop at the interchange.

The Launceston Tiger bus also operates from the interchange and the UTAS Inveresk campus located less than 5 minutes walking distance from the site. The bus operates at 15 minute intervals in the morning and afternoon peak hours and at 30 minute intervals during the day. The trip between The Launceston City Interchange, on St John Street in the City, and the Inveresk campus takes approximately 4 minutes.

2.6 Pedestrian and Cycling Facilities

Pedestrian paths are located on all major roads within the immediate road network. Many of the surrounding intersections are signalised with signalised pedestrian crossing on all legs. The larger unsignalised intersections in the vicinity provide pedestrian refuge islands to assist with crossing the road.

Several on-road and off-road bicycle paths are located near the site as shown in Figure 6, which is an extract of the Launceston Arterial Bike Route Network. Off-road bicycle trails connections are provided from Mayfield, the northern end of the Launceston CBD and Trevallyn. These provide the safest facility for cyclists. On-road bicycle lanes and edge of road lanes provide bicycle connections to Newnham, the Launceston CBD and South Launceston, these provide a safe facility for riders but are generally used by more confident cyclists.

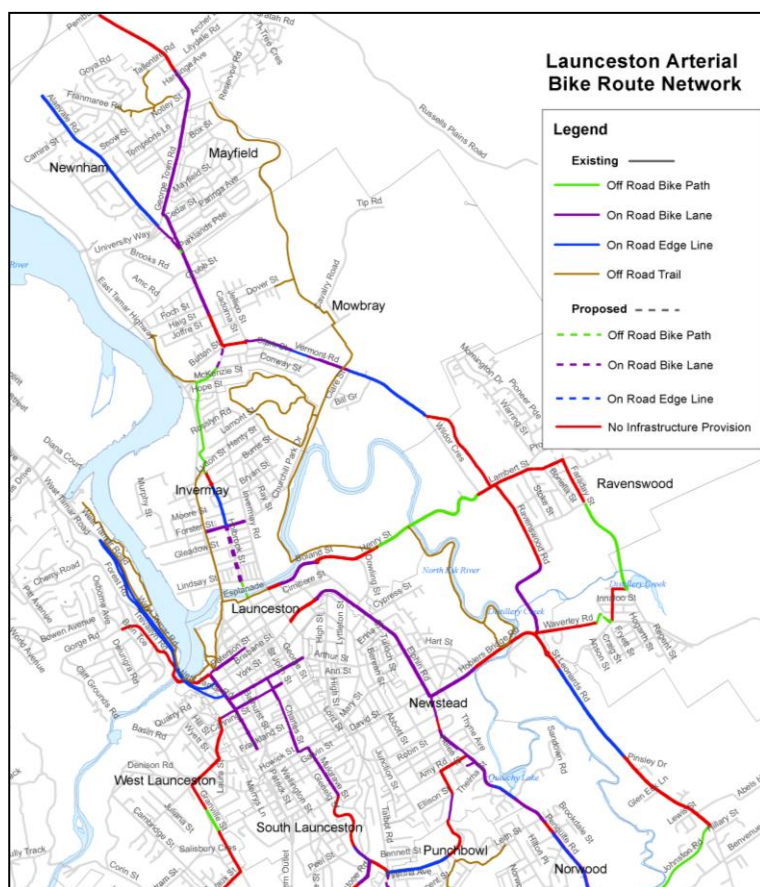


Figure 6: Launceston Arterial Bike Route Network (Source: Launceston City Council)

3. Development Proposal

3.1 Overview

The development has two building components, a four storey building fronting Boland Street and a two-storey building fronting Tamar Street.

The proposed Boland Street development is as follows:

- Ground floor – 30 space car park, 26 secure spaces and 4 unsecured spaces
- Floor 1 to 4 – 28 apartments, 7 on each floor comprising a total of 24 two-bedroom apartments and 4 three-bedroom apartments.

The proposed Tamar Street development is as follows:

- Ground floor – future retail tenancy and a two-bedroom apartment
- First floor – a three-bedroom apartment.

The proposed site plans are included in Appendix B.

3.2 Vehicle Access

Vehicle access to the site will be via the car park on Boland Street. The car park access will include a 3.0m entry and 3.0m exit driveway separated by a brick column. The suitability of the vehicle access is discussed in Section 4.1.

Due to the location of the car park access, close to the Boland Street/ Tamar Street/ Esplanade intersection, vehicles will be encouraged to restrict their movements to left in/ left out.

To highlight that movements are to be left in/ left out a left turn only sign has been placed inside the car park visible to drivers exiting the car park.

3.3 Car Parking

The proposal includes provision for 30 car parking spaces. The car parking spaces are for use by the apartment tenants only.

The car park will have 26 spaces which are secured by an overhead key card gate. The gate will be located back from the boundary to Boland Street so that a vehicle can wait for the gate to open within the car park.

The remaining 4 spaces will not be secured, this will be communicated with the tenants using these spaces. The suitability of the car parking provision is discussed in Section 0.

To ensure the public do not use the unsecured car parking spaces, a barrier within each parking space will be installed similar to the bollard shown in Figure 7. The bollards operate by a single remote control per bollard. Vehicles will be able to operate the bollards once inside the car park.

To further highlight that the car park is for residents only, a “resident parking only” sign will be installed over the entry driveway.



Figure 7: Remote Controlled Bollard

3.4 Loading

Garbage trucks will access the apartment building from the laneway to the north. The laneway has an access width of 3.3m, narrowing to a minimum of 3.0m. The garbage trucks will reverse into the laneway adjacent to the location of the bins. A roller door will be located adjacent to the loading zone to allow access for the garbage trucks to be bins.

Loading for the future retail tenancy could take place kerbside on Tamar Street.

4. Transport Assessment

4.1 Vehicle Access

The vehicle access width has been reviewed against the *Australian Standard for Off Street Parking (AS/NZS2890.1:2004)*. The width dimensions in Section 3.2 meet the requirement of the Australian Standard.

Sight distances to the footpath and pedestrians will need to be maintained at all times for vehicles exiting the car park as shown in Figure 8, which is taken from the *Australian Standard for Off Street Car Parking (AS/NZS2890.1:2004)*.

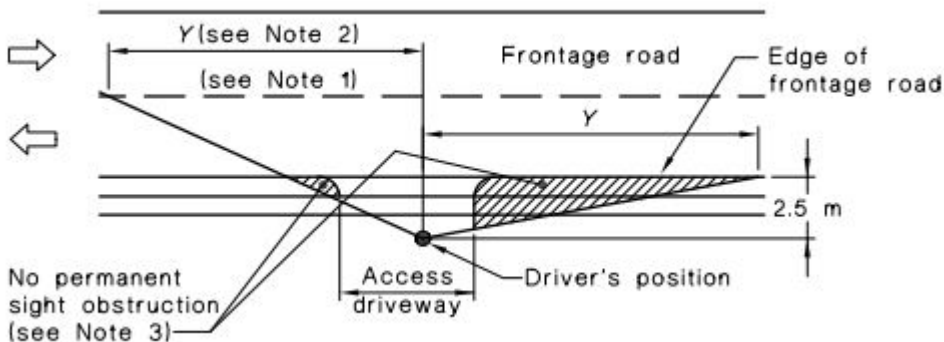


Figure 8: Sight Distances to Footpath

The standard also requires a sight distance of 69 metres. The sight distance to westbound vehicles on Boland Street was observed to be in excess of 100 metres, and therefore satisfies the requirements. A photo showing the expected sight line from a vehicle at the site exit driveway is shown in Figure 9. It is noted that the sight distance was taken at 1.1 metres from the ground at three metres from the lip of kerb as stated in the Austroads Guide.



Figure 9: Sight Distance on Boland Street Looking East

A no right turn sign could be located on the north side of Boland Street to compliment the left turn only sign in the car park.

4.2 Parking

4.2.1 Parking Requirement

Parking rates for developments are set out in the *Launceston Interim Planning Scheme 2015*. The Planning Scheme rates are summarised in Table 3.

Table 3: Planning Scheme Parking Requirements

Land Use	Parking Type	Planning Scheme Parking Rate	Number/ Area	Parking Requirement
Residential	Car Parking	1 space per bedroom or 2 spaces per 3 bedrooms + 1 visitor space for every 5 dwellings	25 2-bedrooms, 5 3 bedrooms, 30 dwellings	66
	Motorcycle Parking	1 motorcycle space per 20 spaces greater than 20 spaces	32 spaces	1
	Bicycle Parking	1 space per 5 bedrooms	65 bedrooms	13

Based on the Planning Scheme requirements shown in Table 3, there are required to be 66 car parking spaces. A total of 13 bicycle parking spaces are also required as well as a motorcycle space.

4.2.2 Car Parking Adequacy

The proposed building is located less than one block from the Launceston Central Business District Parking Exemption Area as shown in Figure 10.

The site is located within a short walking distance of the Launceston CBD and Invermay including the UTAS Inveresk Campus. It is expected that residents living in this location would be able to complete the majority of trips by walking.

As discussed, the site is well service by public transport with several Metro Tasmania bus stops with frequent bus services and the Launceston Tiger Bus all located within 10 minutes walking distance.

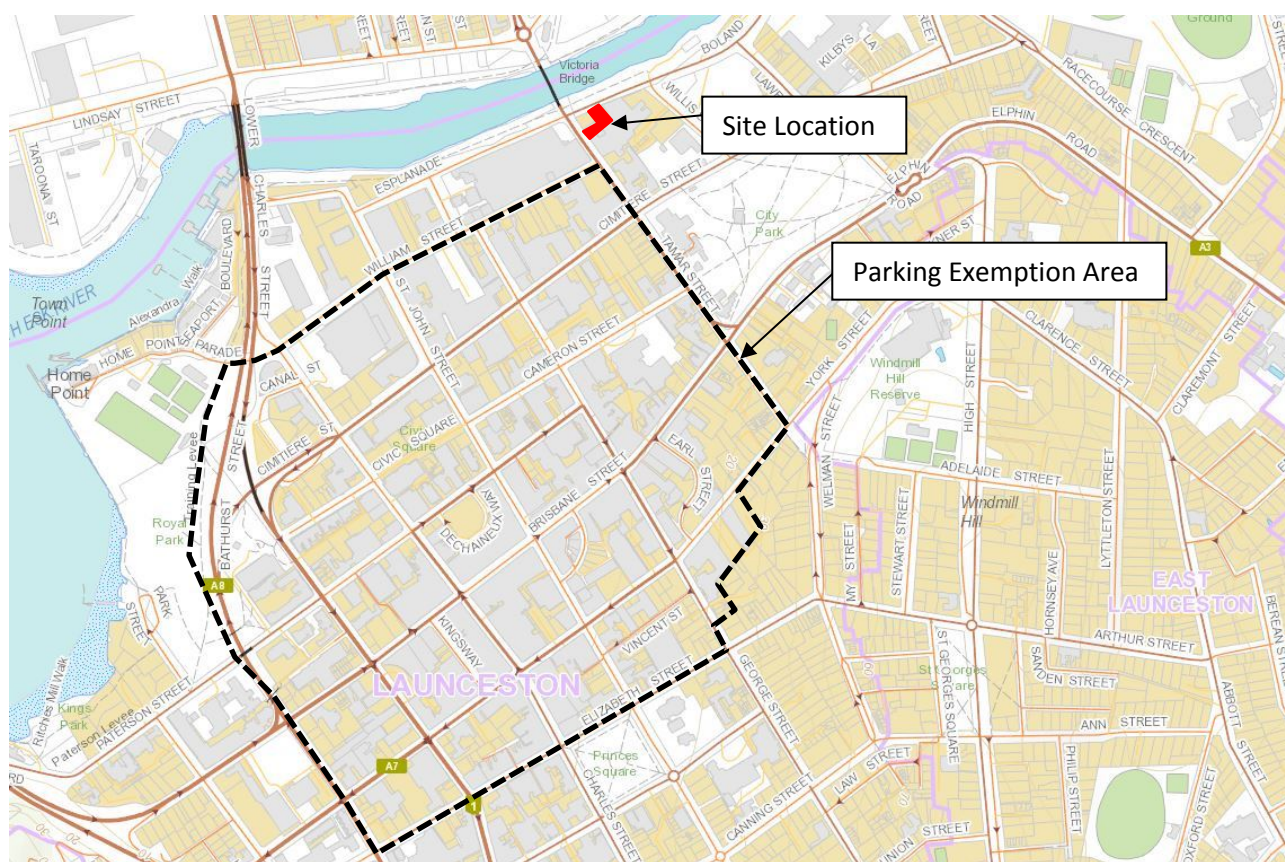


Figure 10: Launceston Business District Parking Exemption Area

As discussed, the ground level car parking spaces on Boland Street are for use by the residents of the apartments only. The car parking provided for the building is below the planning scheme requirement.

Due to the proximity of the car park to the Parking Exemption area and the proximity to key destinations and public transport it is not considered that owning a car would be a requirement for residents of the building. Therefore the car parking allocated is considered adequate.

There are two spaces provided for motorcycles which is one more than the Planning Scheme requirement.

Secure bicycle racks are provided within the brick laneway to the west of the building, spaces for 14 bikes can be accommodated. These spaces will be sheltered.

There is no requirement for DDA parking, if DDA car parking is required this could be accommodated at space 21 or space 29 with minimal changes to linemarking and the addition of the shared space bollard.

4.3 Car Park Layout Review

The car parking layout has been reviewed against the *Australian Standard for Off Street Car Parking (AS/NZS2890.1:2004)*. The residential car park must comply with User Class 1A.

The requirements for car park dimensions are specified in Table 4.

Table 4: Car Parking Layout Requirements

Feature	Minimum Requirement	Proposed
Parking Space Width	2.4m	2.5m
Parking Space Length (90 degree)	5.4m	5.4m
Parking Aisle Width	5.8m	6.0m
Distance between spaces and end of aisle	1.0m	1.12m and 1.43m

User Class 1A allows three point turn entry and exit into 90 degree car parking spaces which would be required for some spaces, particularly the unsecured spaces.

The pedestrian crossing points provide guidance to the stair and lift locations and are adequate for this car park which carries low volumes of vehicles at low speeds.

The alignment of the southern property boundary constrains the available aisle width for parking space No. 1 and results in the 6m aisle width not being provided for the full width of the parking space. AS2890.1 also requires that a 1m aisle extension is provided for blind aisles, which due to the proximity of the property boundary is not provided. Whilst the geometry for parking space No. 1 does not comply with the requirements of AS2890.1 it is expected that a small car (less than B85 size) would be able to adequately enter and exit the parking space.

Based on the assessment against the Australian Standards, except for parking space No. 1, the proposed car parking will meet the requirement of the Australian Standard.

4.4 Loading

The laneway width of 3.3m narrowing to a minimum of 3.0m is expected to be adequate. Veolia Environmental Management confirmed that the trucks can access laneways with a width of 3.0m minimum.

A swept path assessment has been undertaken for 8.8m garbage truck access into the laneway. The swept path shows that an 8.8m garbage truck can reverse into the laneway and exit in a forward direction.

The garbage truck swept path encroaches into the eastbound lane of Boland Street, subsequently blocking traffic in both directions. Due to the high traffic volumes experienced on Boland Street, the garbage trucks should operate outside peak periods when traffic volumes are light and would result in minimal disruptions to traffic on Boland Street.

The swept path is included in Appendix C.

4.5 Traffic Impact Assessment

4.5.1 Traffic Generation

Traffic generation rates for the proposed apartments and commercial have been sought from the *RMS Guide to Traffic Generating Developments*. Estimates of peak hourly and daily traffic volumes resulting from the proposed development are set out in Table 5.

Table 5: Estimated Traffic Generation

Land Use	Peak	Number/ Floor Area	Design Generation Rates		Traffic Generation	
			Peak Hour	Daily	Peak Hour	Daily
Residential (medium density – up to 2 bedrooms)	Weekday AM	25 dwellings	0.5 trips per dwelling	5 trips per dwelling	13 trips	125 trips
	Weekday PM					
Residential (medium density – 3 or more bedrooms)	Weekday AM	5 dwellings	0.65 trips per dwelling	6.5 trips per dwelling	3 trips	33 trips
	Weekday PM					

Table 5 indicates that the apartments could be expected to generate up to 16 vehicle movements in a peak hour and 158 in a day. It is noted that this would be a conservative estimate as it is likely that the majority of trips in the peak hour would be walking trips due to the location of the development close to the Launceston CBD and Inveresk.

4.5.2 Traffic Impact

The traffic volumes generated by the development are low. When compared with the existing traffic volumes on the road network, the additional movements generated by the development would not be expected to compromise the function or safety of the surrounding road network. The impact to Boland Street at the site access is also expected to be low as the access will be left in/ left out.

The apartment development is not expected to increase in size and therefore the development is expected to have a minimal impact on the surrounding road network 10 years' post development. The future retail tenancy is also expected to generate low traffic volumes once completed due to the small floor area.

5. Conclusion

An assessment of the traffic impacts associated with the residential apartments and commercial tenancy proposed at 4-6 Boland Street and 13 Tamar Street has been undertaken in accordance with the Department of State Growth's *Framework for Undertaking Traffic Impact Assessments*. The analysis and discussions presented in the report can be summarised as follows:

- The additional traffic volumes generated by the development are low and expected to have a minimal impact on the safety and operation of the surrounding road network
- The development will provide a total of 30 car parking spaces for the multiple dwellings, this is less than the Planning Scheme requirement, however due to the location of the site close to the Launceston CBD and the UTAS Inveresk Campus and the availability of nearby public transport, the parking supply is expected to be adequate

- The proposed off-street car park on Boland Street complies with the requirements of the *Australian Standard for Off Street Car parking (AS/NZS2890.1:2004)* except for parking space No. 1. It is expected that a small car (less than B85 size) would be able to adequately enter and exit parking space No. 1
- Due to the location of the car park access, close to the Boland Street/ Tamar Street/ Esplanade intersection, vehicle movements at the access should be limited to left-in/ left out
- The location of the garbage truck pick up location is adequate subject to recommendations in this report.

Appendix A

Existing SIDRA Intersection Results

MOVEMENT SUMMARY

 Site: 101 [Boland Street/ Tamar Street/ Esplanade - Existing AM Peak]

08:15 - 09:15

Signals - Fixed Time Isolated Cycle Time = 50 seconds (Practical Cycle Time)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Tamar Street											
1	L2	6	5.0	0.593	23.7	LOS C	6.1	44.7	0.94	0.79	39.2
2	T1	531	5.0	0.593	19.1	LOS B	6.1	44.7	0.94	0.79	39.6
Approach		537	5.0	0.593	19.2	LOS B	6.1	44.7	0.94	0.79	39.6
East: Boland Street											
4	L2	36	5.0	0.201	11.6	LOS B	2.6	18.9	0.57	0.51	44.7
5	T1	160	5.0	0.201	7.0	LOS A	2.6	18.9	0.57	0.51	45.2
6	R2	433	5.0	0.696	15.6	LOS B	7.4	54.1	0.93	0.85	40.7
Approach		628	5.0	0.696	13.2	LOS B	7.4	54.1	0.81	0.75	41.9
North: Tamar Street											
7	L2	462	5.0	0.416	9.9	LOS A	5.8	42.6	0.55	0.72	43.6
8	T1	399	5.0	0.880	29.4	LOS C	12.2	88.9	1.00	1.15	35.6
Approach		861	5.0	0.880	18.9	LOS B	12.2	88.9	0.76	0.92	39.5
West: Esplanade											
10	L2	111	5.0	0.898	38.0	LOS D	7.2	52.9	1.00	1.16	33.4
11	T1	121	5.0	0.898	33.4	LOS C	7.2	52.9	1.00	1.16	33.6
12	R2	8	5.0	0.034	25.6	LOS C	0.2	1.4	0.89	0.66	36.6
Approach		240	5.0	0.898	35.2	LOS D	7.2	52.9	1.00	1.14	33.6
All Vehicles		2266	5.0	0.898	19.1	LOS B	12.2	88.9	0.84	0.86	39.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped	
P1	South Full Crossing	53	9.6	LOS A	0.0	0.0	0.62	0.62	
P2	East Full Crossing	53	19.4	LOS B	0.1	0.1	0.88	0.88	
P3	North Full Crossing	53	19.4	LOS B	0.1	0.1	0.88	0.88	
P4	West Full Crossing	53	19.4	LOS B	0.1	0.1	0.88	0.88	
All Pedestrians		211	17.0	LOS B			0.82	0.82	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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MOVEMENT SUMMARY

 **Site: 101 [Boland Street/ Tamar Street/ Esplanade - Existing PM Peak]**

08:15 - 09:15

Signals - Fixed Time Isolated Cycle Time = 60 seconds (Practical Cycle Time)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Tamar Street											
1	L2	11	5.0	0.321	20.3	LOS C	4.6	33.8	0.77	0.65	40.7
2	T1	414	5.0	0.321	15.7	LOS B	4.6	33.9	0.77	0.64	41.1
Approach		424	5.0	0.321	15.8	LOS B	4.6	33.9	0.77	0.64	41.1
East: Boland Street											
4	L2	32	5.0	0.317	16.1	LOS B	5.1	37.0	0.68	0.60	42.5
5	T1	236	5.0	0.317	11.5	LOS B	5.1	37.0	0.68	0.60	42.9
6	R2	394	5.0	0.718	20.3	LOS C	9.0	65.5	0.96	0.87	38.7
Approach		661	5.0	0.718	16.9	LOS B	9.0	65.5	0.84	0.76	40.3
North: Tamar Street											
7	L2	922	5.0	0.753	12.0	LOS B	18.3	133.6	0.71	0.81	42.6
8	T1	572	5.0	0.865	28.4	LOS C	19.5	142.4	1.00	1.10	36.0
Approach		1494	5.0	0.865	18.3	LOS B	19.5	142.4	0.82	0.92	39.8
West: Esplanade											
10	L2	75	5.0	0.911	45.3	LOS D	7.4	53.7	1.00	1.15	31.4
11	T1	122	5.0	0.911	40.7	LOS D	7.4	53.7	1.00	1.15	31.7
12	R2	4	5.0	0.021	30.9	LOS C	0.1	0.8	0.91	0.63	34.7
Approach		201	5.0	0.911	42.2	LOS D	7.4	53.7	1.00	1.14	31.6
All Vehicles		2780	5.0	0.911	19.3	LOS B	19.5	142.4	0.83	0.86	39.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Movement Performance - Pedestrians									
Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Distance m	Prop. Queued	Effective Stop Rate per ped	
P1	South Full Crossing	53	13.4	LOS B	0.1	0.1	0.67	0.67	
P2	East Full Crossing	53	17.7	LOS B	0.1	0.1	0.77	0.77	
P3	North Full Crossing	53	24.4	LOS C	0.1	0.1	0.90	0.90	
P4	West Full Crossing	53	17.7	LOS B	0.1	0.1	0.77	0.77	
All Pedestrians		211	18.3	LOS B			0.78	0.78	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

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Appendix B

Development Concept Plans



view from Tamar St outside brewery



view from Tamar St towards Boland St



view from Tamar St to proposed apartments



view from corner Esplanade and Tamar St towards Boland St



aerial view to laneway



street view to laneway



view from levee bank towards Tamar St



view towards Tamar St



view levee bank opposite



view from Tamar St bridge



view from Esplanade to Boland St

Images generated from
3D Point Cloud Scan

	REVISION	DATE	DESCRIPTION	RESPONSE TO DA 501	ISSUE
	ADDRESS	4-6 Boland St / 13 Tamar Street	<small>do not scale if print at different resolution unless otherwise stated all units in metric (SI) units</small>		DA1
	CLIENT	Beecroft	SCALE	A1	N/A
	DWG	Additional Drawing page 1	DRAWN	SG	CHECKED
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BOLAND STREET *accommodation*



Document Set ID: 3552660
Version: 7.2 (Rev. 14/07/2017)



REVISION ID	DATE	DESCRIPTION	Response to DA 691	ISSUE
	20/06/17			DA1
ADDRESS: 4-6 Boland St / 13 Tamar Street				SCALE @ A1: N/A
CLIENT: Beecroft				DWG # A01
DWG: Cover				DRAWN: SDC
				CHECK: SBN PROJECT# J002464

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TAMAR STREET



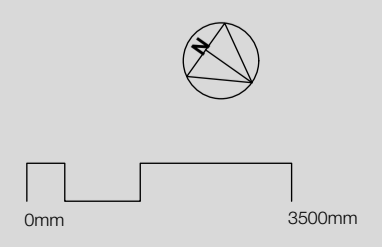
Location plan
Scale: 1:1000



ADJACENT BUILDING

ADJACENT BUILDING

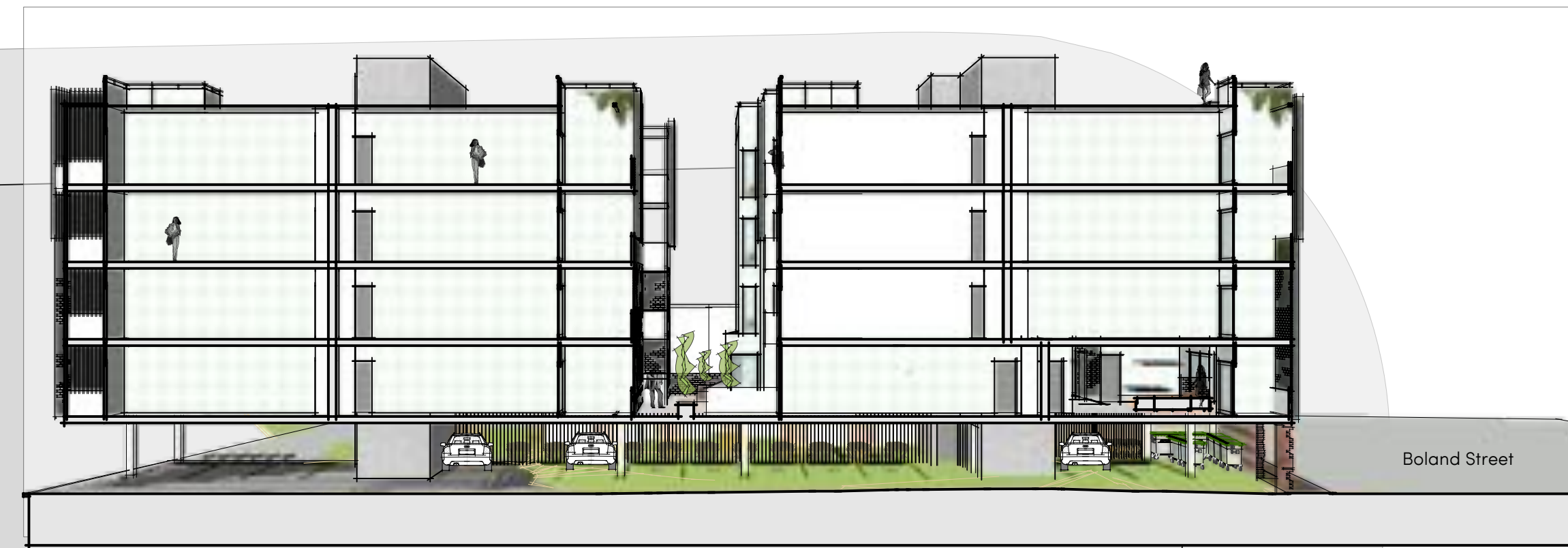
BOLAND STREET



REVISION	DATE	DESCRIPTION	RESPONSE TO DA #1
1	20/06/17	4-6 Boland St / 13 Tamar Street	
2		Beecroft	
3		Ground floor/Site	



TAMAR STREET



1 Site Section
Scale: 1:200



BOLAND STREET

FIRST FLOOR PLAN

PROJ. NO.	DATE	DESCRIPTION	Response to DA #1
ADDRESS	4-6 Boland St / 13 Tamar Street		
CLIENT	Becroft		
DWG	First floor		
SCALE (A1)	1:100		
DRAWN	SG		
CHECK	SH		
PROJECT #	J002464		





NOTE: ALL ADJACENT STRUCTURES SHOWN INDICATIVELY
 ALL CLADDINGS INSTALLED TO MANUFACTURERS SPECIFICATIONS
 ALL COLOURS TO FUTURE SELECTION, COMPLEMENTARY AND
 RESPONSIVE TO SURROUNDINGS
 BATTER TO COMPLY WITH NCC
 GROUND LEVELS SHOWN INDICATIVELY, ENSURE FINISH SURFACE
 FALLS AWAY FROM STRUCTURE.

REVISION ID	DATE	DESCRIPTION	Response to DA 9/11
ADDRESS	4-6 Boland St / 13 Tamar Street		
CLIENT	Beecroft		
DWG	Elevations 01		
SCALE @ A4	1:100	ISSUE	DA1
DRAWN	SG	DWG #	A04
CHECK	SH	PROJECT #	J002464



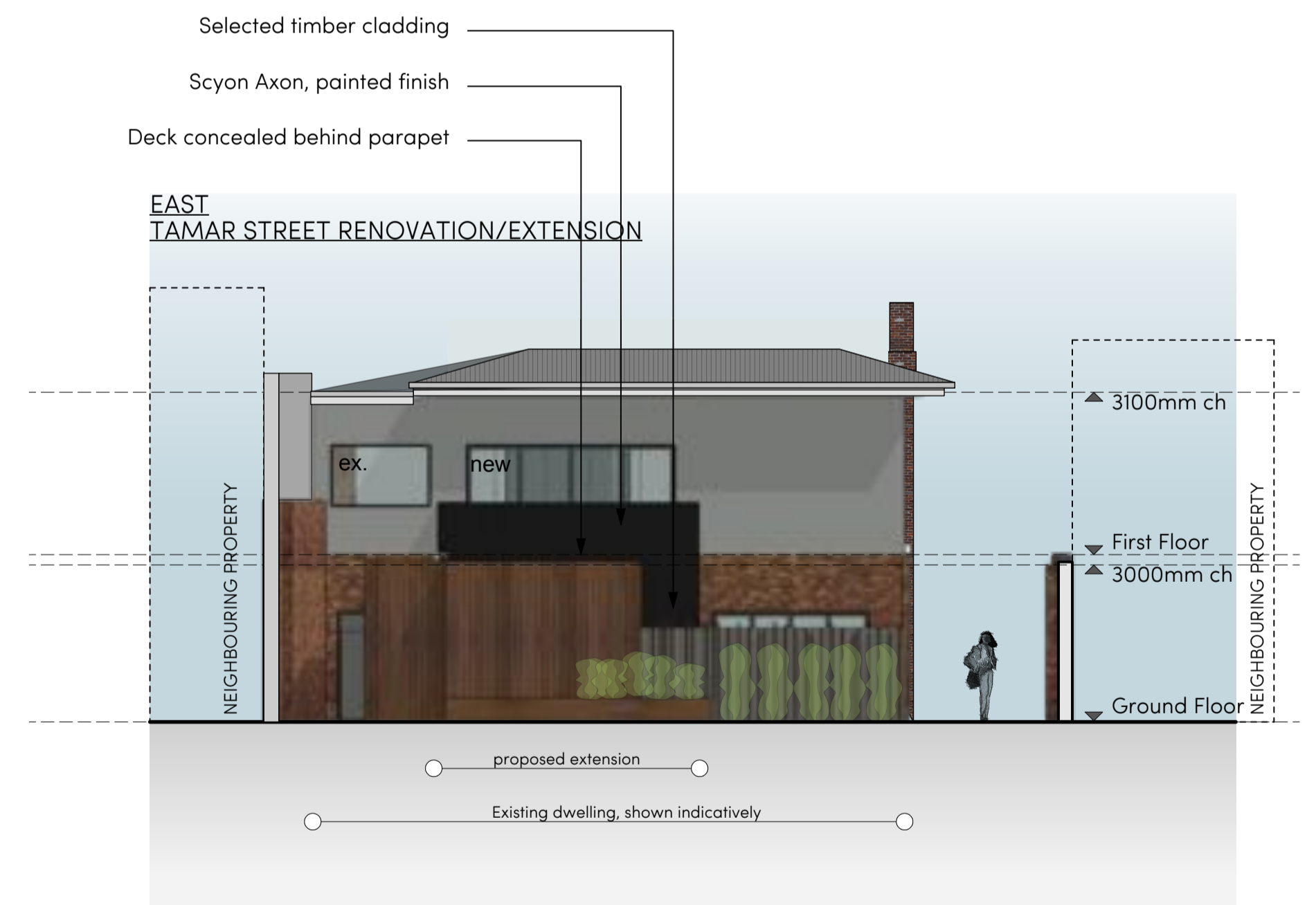
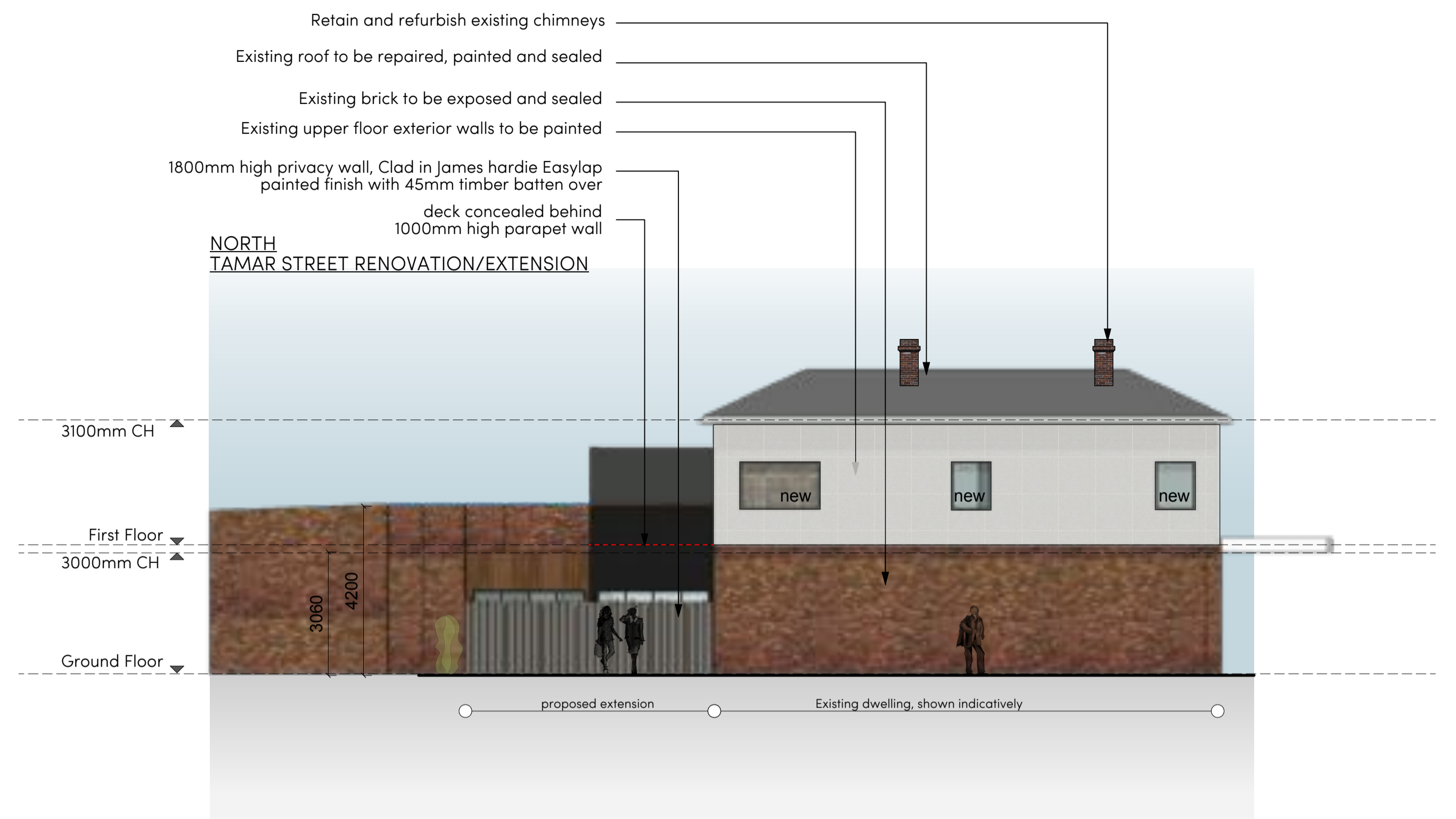


1 South elevation



2 East elevation

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 BATTER TO COMPLY WITH NCC
 GROUND LEVELS SHOWN INDICATIVELY, ENSURE FINISH SURFACE FALLS AWAY FROM STRUCTURE.



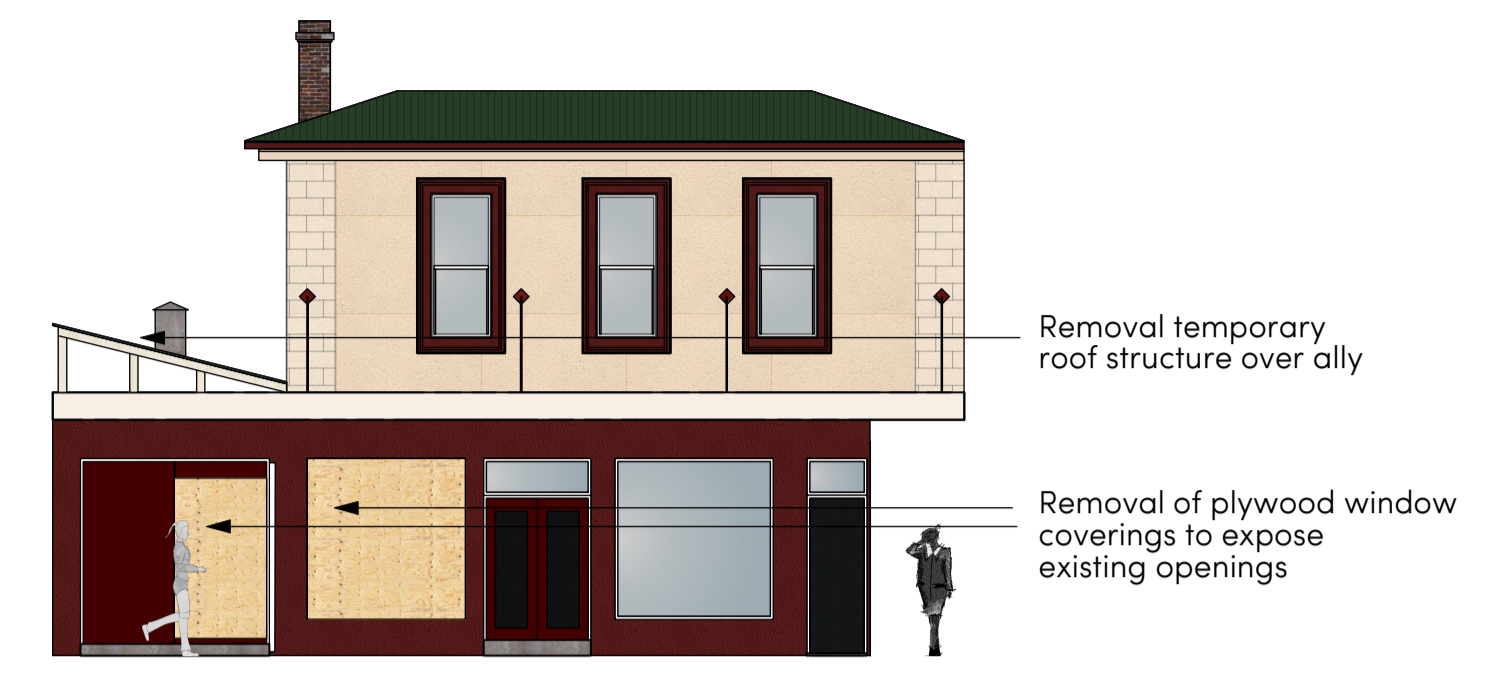
NOTE: ALL ADJACENT STRUCTURES SHOWN INDICATIVELY
 ALL CLADDINGS INSTALLED TO MANUFACTURERS SPECIFICATIONS
 ALL COLOURS TO FUTURE SELECTION, COMPLIMENTARY AND RESPONSIVE TO SURROUNDINGS
 GROUND LEVELS SHOWN INDICATIVELY, ENSURE FINISH SURFACE FALLS AWAY FROM STRUCTURE.



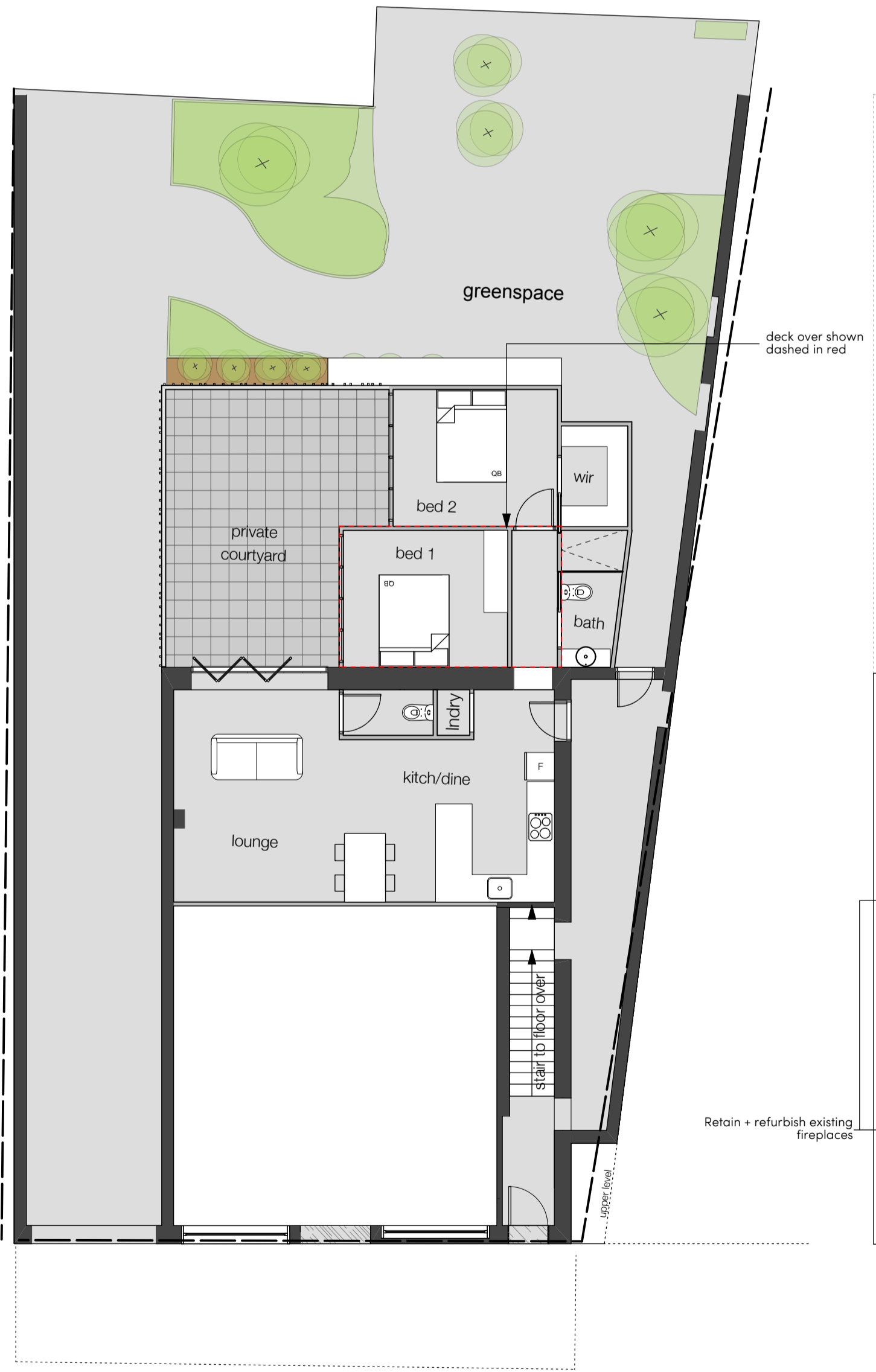
13 TAMAR STREET PROPOSED FACADE 1:100

new gate proposed to access laneway

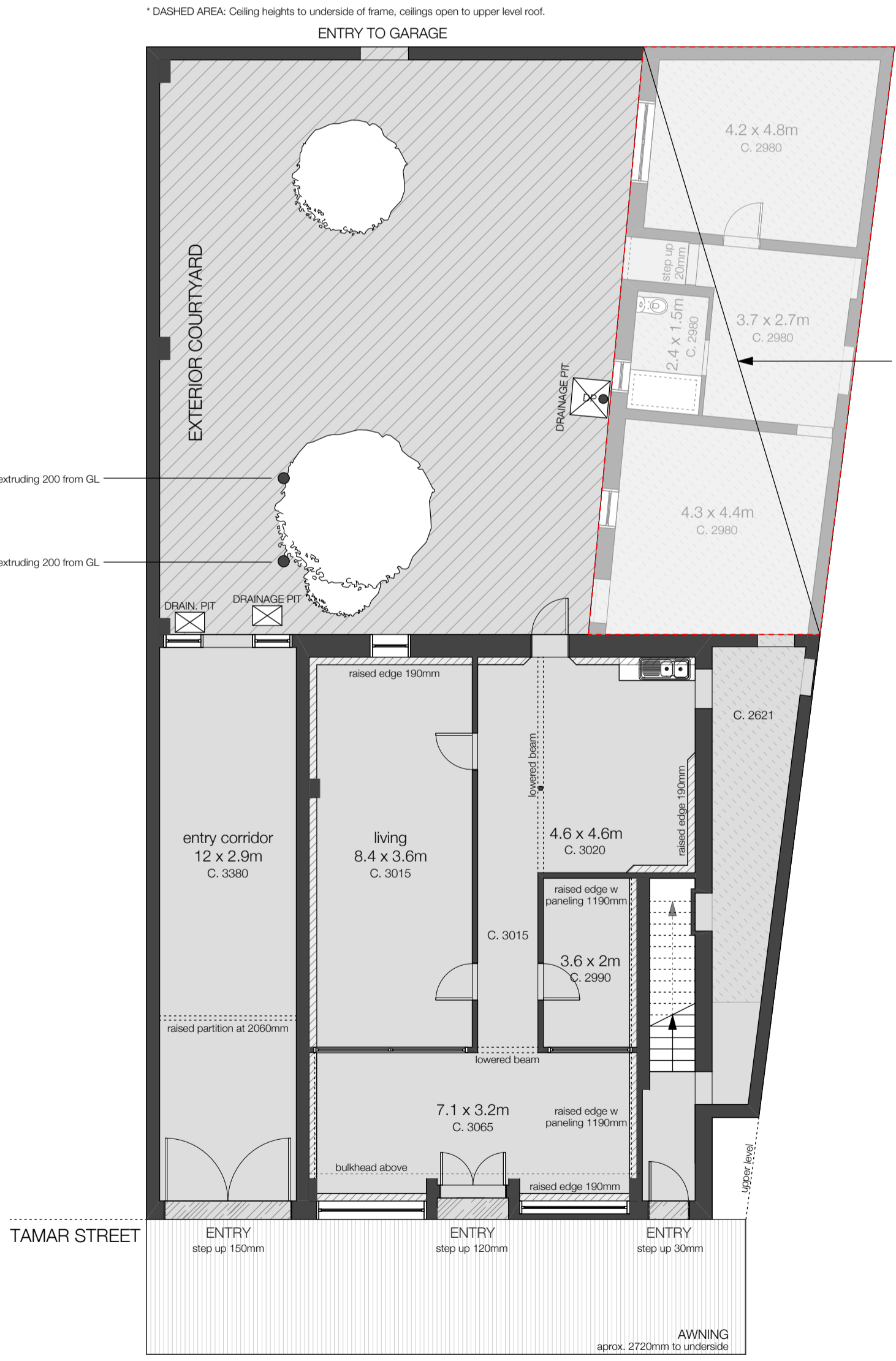
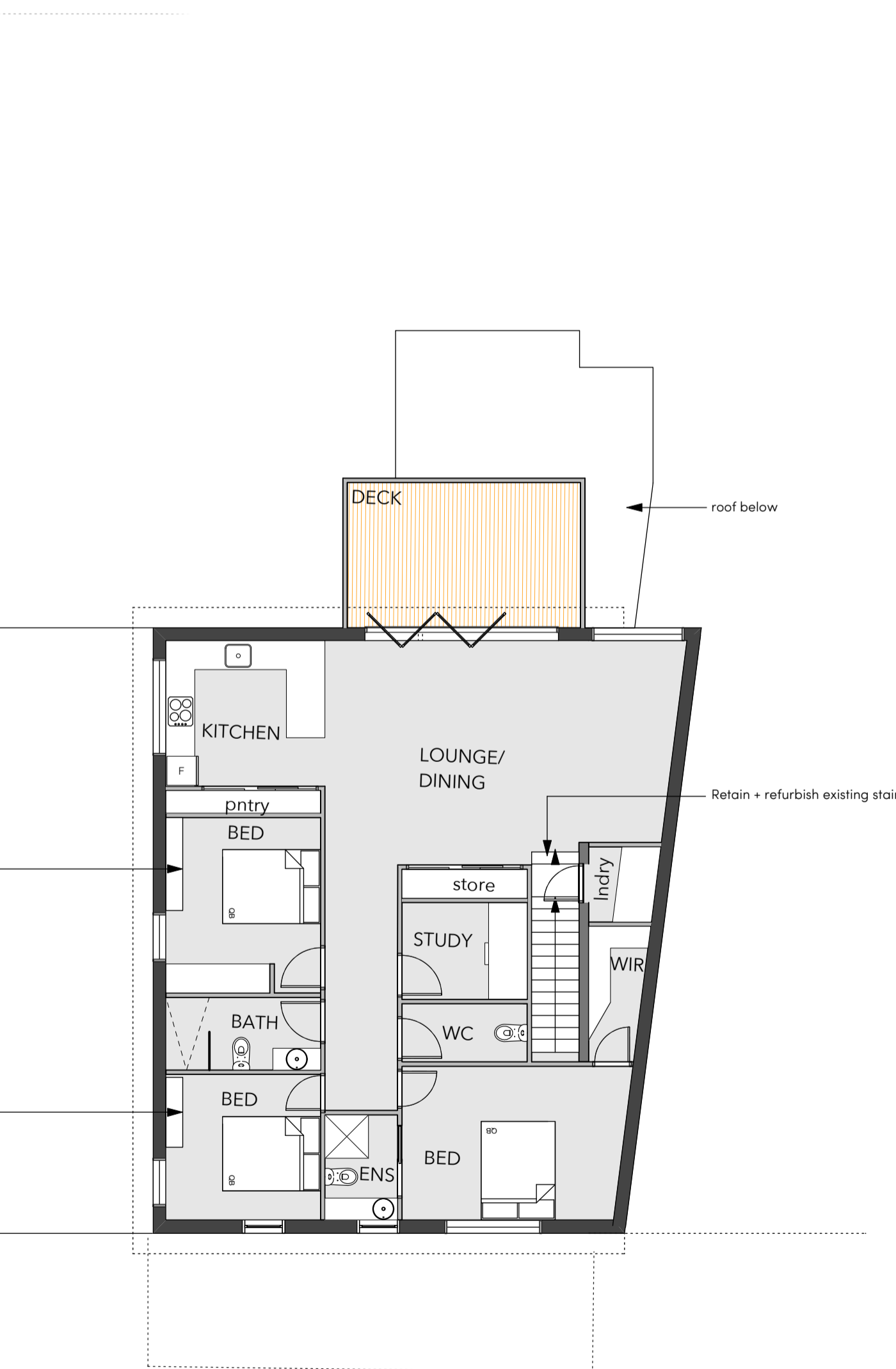
new door proposed in existing refurbished frame



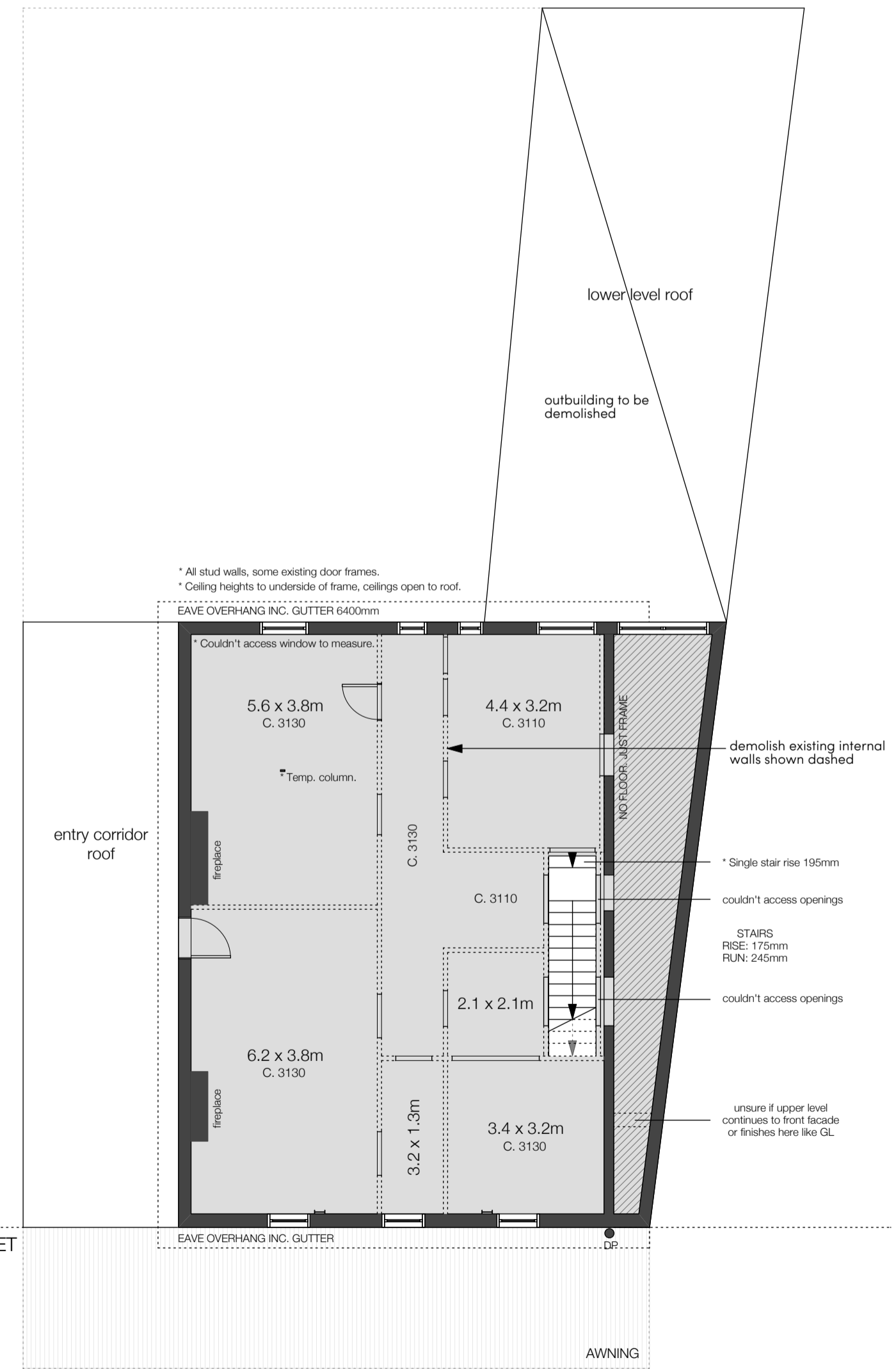
13 TAMAR STREET EXISTING FACADE 1:100



13 TAMAR STREET PROPOSED FLOOR PLAN 1:100



13 TAMAR STREET EXISTING FLOOR PLAN 1:100



	REVISION	DATE	DESCRIPTION	Response to DA 6/1
	ADDRESS	4-6 Boland St / 13 Tamar Street		
	CLIENT	Beecroft		
	DWG	13 Tamar Street		
SCALE @ A1	1:100	ISSUE	DA1	
DRAWN	SG	DWG #	A07	
CHECKED	SH	PROJECT #	J002464	
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Tamar Street

existing buildings below

Tamar St tenancy below

existing buildings below

adjacent building below



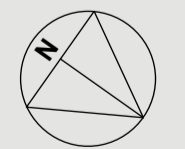
proposed roof garden terrace South building



proposed roof garden terrace South building
adjacent building below

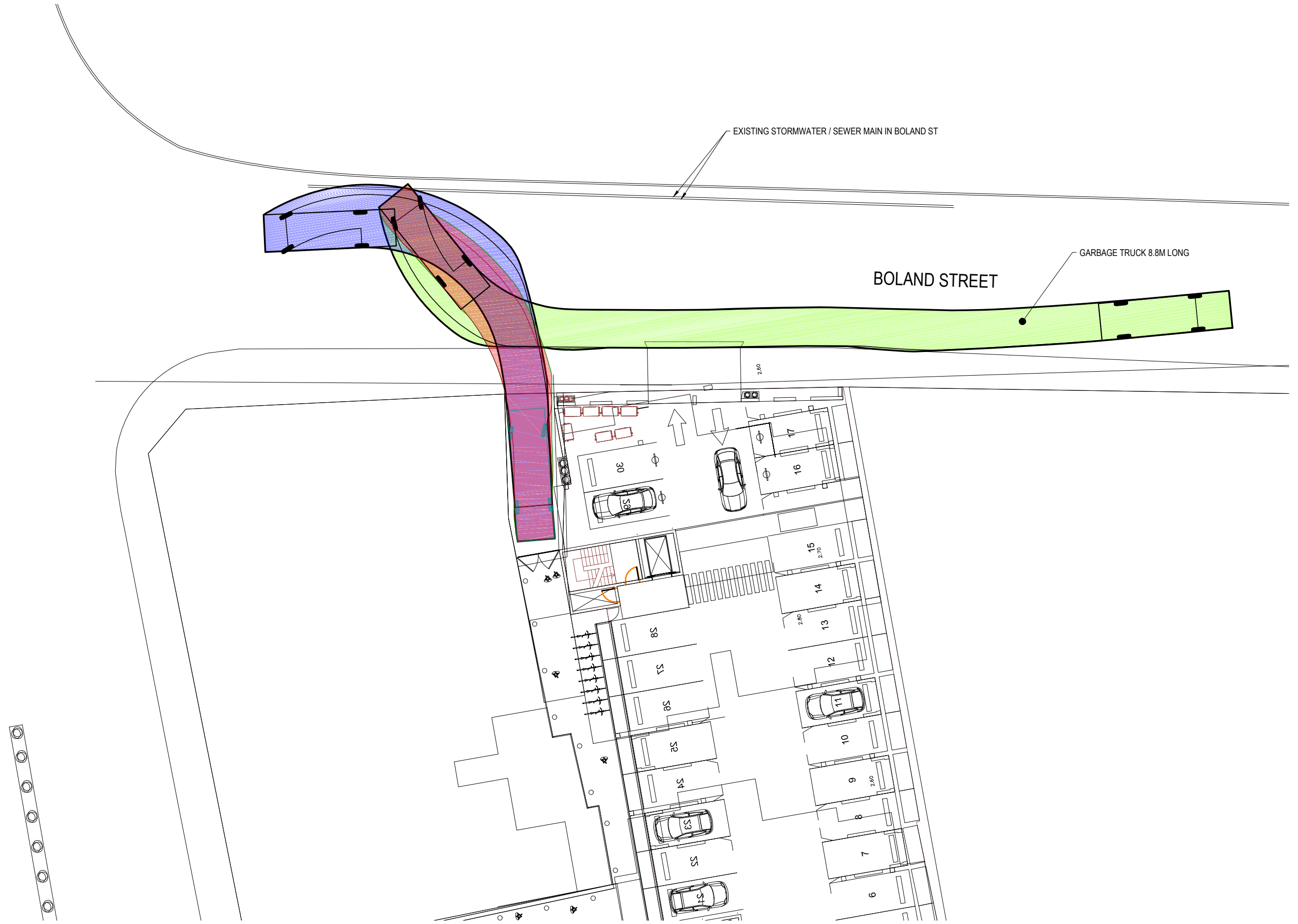
existing buildings below

Boland Street



Appendix C

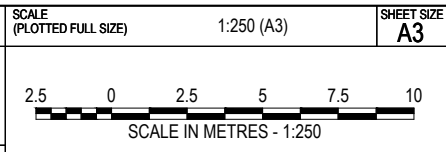
Loading Vehicle Swept Path



REFERENCE FILES ATTACHED: HB16147-X1500

DRAWING REVISION HISTORY					
No.	DESCRIPTION	DRAWN	DESIGNED	REVIEWED	DATE
1.B					29/06/2017

APPROVED	
ORIGINAL COPY ON FILE	
"e" SIGNED BY	
SIGNED	
DATE	



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CLIENT	S.GROUP
PROJECT	STUDENT ACCOMODATION 4-6 BOLAND STREET
STATUS	PRELIMINARY

DRAWING TITLE		GARBAGE TRUCK 8.8m LONG TURNING PATH	
DATUMS:	AHD / MGA	CLIENT No.	-
DRAWING No.	HB16147-P1	REVISION	-
Jun. 29, 17 - 15:38:48 Name: HB16147-P1.dwg Updated By: Ivan Brito			

Contact

Rebekah Giana

03 6210 1400

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PLANNING REF: DA0155/2017
THC WORKS REF: 5299
REGISTERED PLACE NO: 4634
FILE NO: 15-11-33THC
APPLICANT: S Group
DATE: 27 October 2017

NOTICE OF HERITAGE DECISION

(Historic Cultural Heritage Act 1995)

The Place: 2-4 Boland Street and 13 Tamar Street, Launceston.
The Registered Place: 13 Tamar Street, Launceston.
Proposed Works: Partial demolition and alterations to heritage building.

Under section 39(6)(b) of the *Historic Cultural Heritage Act 1995*, the Heritage Council gives notice that it consents to the discretionary permit being granted in accordance with Development Application DA0155/2017 as advertised on 11/10/2017, subject to the following conditions:

- 1. Changes to the wooden flooring, wall studwork, door frames, original window joinery and other remnant joinery on the first floor level of 13 Tamar Street are not approved.**

Reason for condition

The application contains insufficient justification for the changes that are proposed to this fabric and to the spaces that the walls define.

- 2. A schedule of coatings and finishes proposed to be applied to the existing fabric of the heritage building must be provided to Heritage Tasmania and must be to the satisfaction of the Works Manager before any such coating is applied.**

Reason for condition

The application contains insufficient information as to the coatings and finishes that are proposed and their compatibility with the historic fabric.

- 3. Any new pavement laid adjacent to the heritage building at 13 Tamar Street is to incorporate a permeable strip of no less than 300mm width along the full length of any original section of wall and be sloped to ensure that any surface water is channelled away from the strip with permeable surface treatment.**

4. **Any concrete floors proposed for new works must be detailed such that the junctions between the slab and existing masonry walls are constructed to:**
- **not result in the transfer of moisture or the introduction of soluble salts to the existing walls; and**
 - **incorporate a porous strip of minimum 300mm width alongside the base of the masonry wall, enabling the evaporation of moisture from the ground at the base of the wall; or other detail having similar effect, to the satisfaction of Heritage Tasmania's Works Manager.**

Reason for conditions 3 & 4

To avoid any circumstances that may cause or exacerbate rising damp or rot in the historic masonry or timber wall structures.

Advice

It is recommended that the applicant seeks to better understand the historic heritage significance of the place and how the existing fabric contributes to this significance. Following this, a design that is more compatible with the significant spaces and heritage fabric can be prepared and submitted for approval.

Please ensure the details of this notice, including conditions, are included in any permit issued, and forward a copy of the permit or decision of refusal to the Heritage Council for our records.

Please contact Heritage Tasmania's Works Manager, Ian Boersma, on 6777 2073 or 1300 850 332 if you require clarification of any matters contained in this notice.



Dr Kathryn Evans

Chair

Under delegation of the Tasmanian Heritage Council