DEVELOPMENT APPLICATION

APPLICATION NUMBER:	PLN-25-122
PROPOSED DEVELOPMENT:	Three Multiple Dwellings (one existing and two new)
LOCATION:	10 Garden Grove West Moonah
APPLICANT:	West Elevation Design
ADVERTISING START DATE:	03/02/2026
ADVERTISING EXPIRY DATE:	18/02/2026

Plans and documentation are available for inspection at Council's Offices, located at 374 Main Road, Glenorchy between 8.30 am and 5.00 pm, Monday to Friday (excluding public holidays) and the plans are available on Glenorchy City Council's website (**www.gcc.tas.gov.au**) until **18/02/2026**.

During this time, any person may make representations relating to the applications by letter addressed to the Chief Executive Officer, Glenorchy City Council, PO Box 103, Glenorchy 7010 or by email to gccmail@gcc.tas.gov.au.

Representations must be received by no later than 11.59 pm on **18/02/2026,** or for postal and hand delivered representations, by 5.00 pm on **18/02/2026**

374 Main Road, Glenorchy
PO Box 103, Glenorchy TAS 7010
(03) 6216 6800 | gccmail@gcc.tas.gov.au
www.gcc.tas.gov.au
ABN 19 753 252 493

WEST ELEVATION Design

WEST ELEVATION
LICENSE NUMBER: 337666325
OFFICE@WESTELEVATION.COM.AU
0433 062 839
WWW.WESTELEVATION.COM.AU

PROJECT:

10 GARDEN GROVE, WEST MOONAH

UNIT DEVELOPMENT

PROJECT NUMBER: J1206

DRAWING NUMBER:

A00	COVER PAGE
A01A	EXISTING SITE PLAN
A01B	PROPOSED SITE PLAN
A02	DRAINAGE PLAN
A03A	EXISTING HOUSE FLOOR PLAN
A03B	PROPOSED HOUSE FLOOR PLAN
A03C	PROPOSED UNIT 1 FLOOR PLAN
A03D	PROPOSED UNIT 2 FLOOR PLAN
A04	ROOF PLAN
A05	SECTION
A06A	EXISTING HOUSE ELEVATIONS
A06B	PROPOSED UNIT ELEVATIONS
A07A	UNIT 1 ELECTRICAL PLAN
A07B	UNIT 2 ELECTRICAL PLAN
A08	EXTERNAL PERSPECTIVES
A09A	WINTER SOLSTICE SUN DIAGRAMS PER HOUR
A09B	WINTER SOLSTICE SUN DIAGRAMS PER HOUR
A09C	SUMMER SOLSTICE SUN DIAGRAMS
A09D	WINTER SOLSTICE SUN DIAGRAMS PER HOUR 3D
A09E	WINTER SOLSTICE SUN DIAGRAMS PER HOUR 3D

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WIND CLASSIFICATION:Unassigned

SOIL CLASSIFICATION:Unassigned

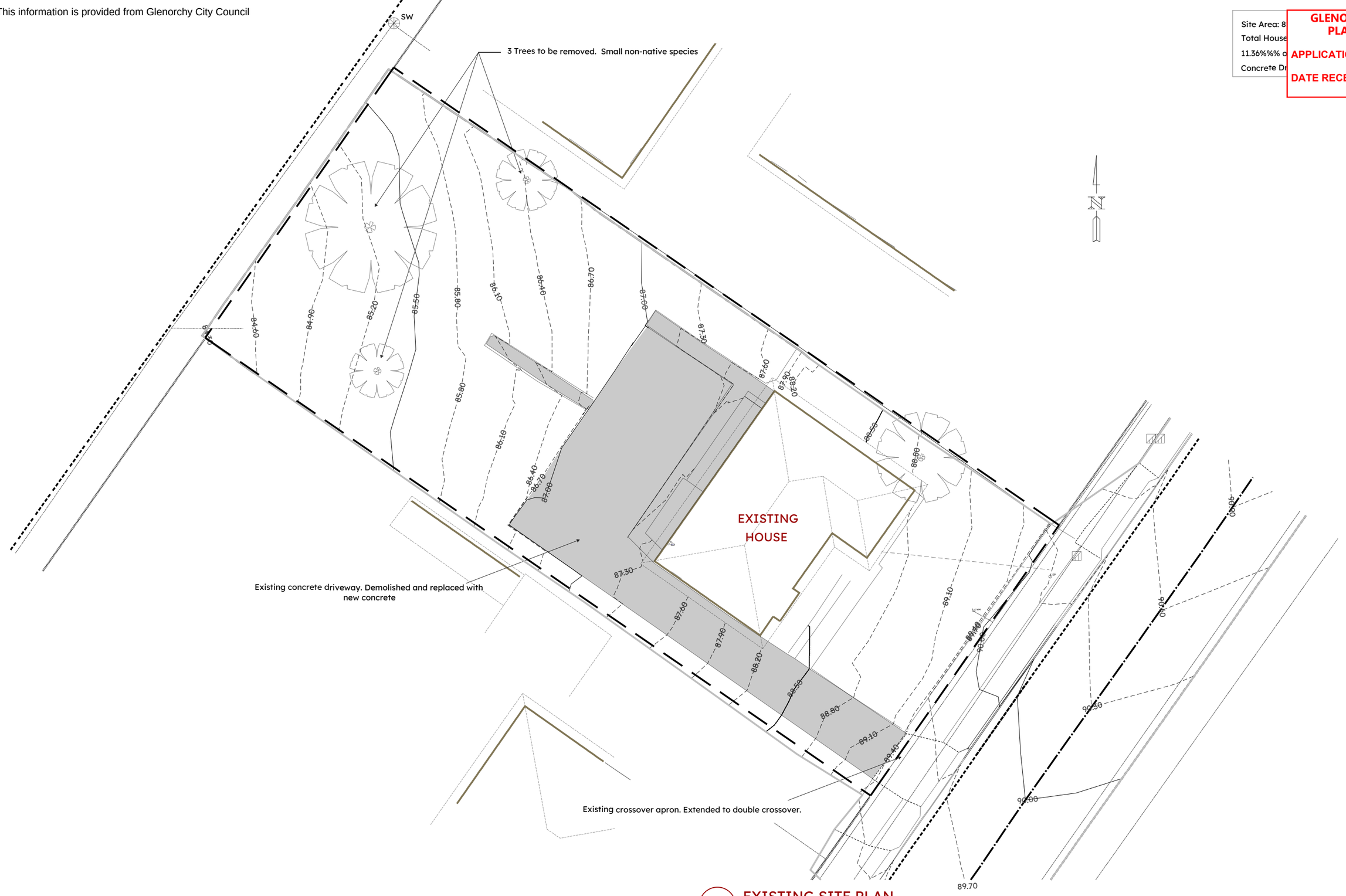
CLIENT : Ruyin Lan & Lingwei Zhu

PROJECT ADDRESS : 10 Garden Grove, West Moonah

DATE: 09/04/2025

CHECKED: GD

Site Area: 8
Total House
11.36%% o
Concrete Dr



1 EXISTING SITE PLAN
SCALE: 1:200

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Site Area: 82
Total House
34.65%% o
Total Concre
New Roof A
Total new Impervious Areas: 342.16m²

All works are to be in accordance with the Water Supply Code of Australia WSA 03 -2011-3.1Version 3.1 MRWA Edition V2.0 and Sewerage Code of Australia Melbourne Retail Water AgenciesCode WSA 02—2014-3.1 MRWA Version 2 and TasWater's supplements to these codes

Please Note: During construction the contractor is to abide by TSD - SW28. Which includes but not limited to:

- Early roof drainage connections
- Divert up-slope water
- Minimise soil disturbance
- Erosion control mats if necessary

2000L Slimline water tank for water detention

B Bollard Driveway Lighting

CL Wall Hung retractable clothes line

WS Min 1.5m2 impervious area for waste storage

Pittosporum Stevens Island (approx 2-3m)

Betula (silver birch) Approx 6-9m

Note: All heights given are matured heights

SW

1.8m high paling fence (shown in red)

Private Open Space via deck of 9.39m2. Reliance on 8.4.3 P2. Rear boundary backs onto Council land, thus within 4m setback.

1.7m high privacy screen. See elevations

Side setback to comply with 8.4.2 A3 (b) ii in that it's 9m in total length where within 1.5m

Site cut @ 86.55. Batter bank to safe angle of repose. If this isn't achievable on site, use a gravity block or timber sleeper RW. Maximum height 1m.

PROPOSED UNIT #2 FFL: 87.00

PROPOSED UNIT #1 FFL: 86.80

Unit 2 Parking Bay 2

Unit 2 Parking Bay 1

Unit 1 Parking Bay 2

Unit 1 Parking Bay 1

1.7 high privacy sceen. See elevations

90 x 19 vertical slat fence (10mm gap). Giving privacy to private open space for ex house. Front fence to have 90 x19 vertical slats fitted between brickwork 1.7m high to give privacy from road.

EXISTING HOUSE

Private Open Space (24m2 min). 9% grade

Visitor Park assigned to street. Multiple vacant spots available on the street.

Existing House Parking Bays 1&2

New deck to first floor with stairs to private open space at front of house

1.8m high paling fence (shown in red) Gate access to under house storage.

1.5m2 waste storage area per unit. Screened from road with 1.2m high timber screen (vertical 90x 19 slats)

C.T.112053/144

823m²

3 x New DN25 (I.D. 20) HDPE (PE100) SDR11 PN16 water connection, with a 20mm water meter in accordance with TWS-W-0002 Sheet 5 by TasWater's contractor at the developers cost. 500mm away from frontage

New Council vehicle double crossover in accordance with LGAT drawings TSD-R09-v3 and GCC Regulations. See Fysh Design for driveway grades

5500 mm

1 PROPOSED SITE PLAN
SCALE: 1:200

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PAGE NO: A01b

ALL PLUMBING TO BE IN ACCORDANCE WITH AS3500

BOX GUTTERS, SUMPS, RAIN WATER HEAD OVERFLOWS & DOWNPIPES TO COMPLY WITH NCC & AS/NZS 3500.3:2021 3.3.7 &3.7.8

SEWER & STORMWATER TO MAINS CONNECTIONS, PLUMBER TO VERIFY LOCATION ON SITE

ALL STORMWATER PITS TO BE DESIGNED IN ACCORDANCE WITH AS3500 - 2021.3.7.5.2.1

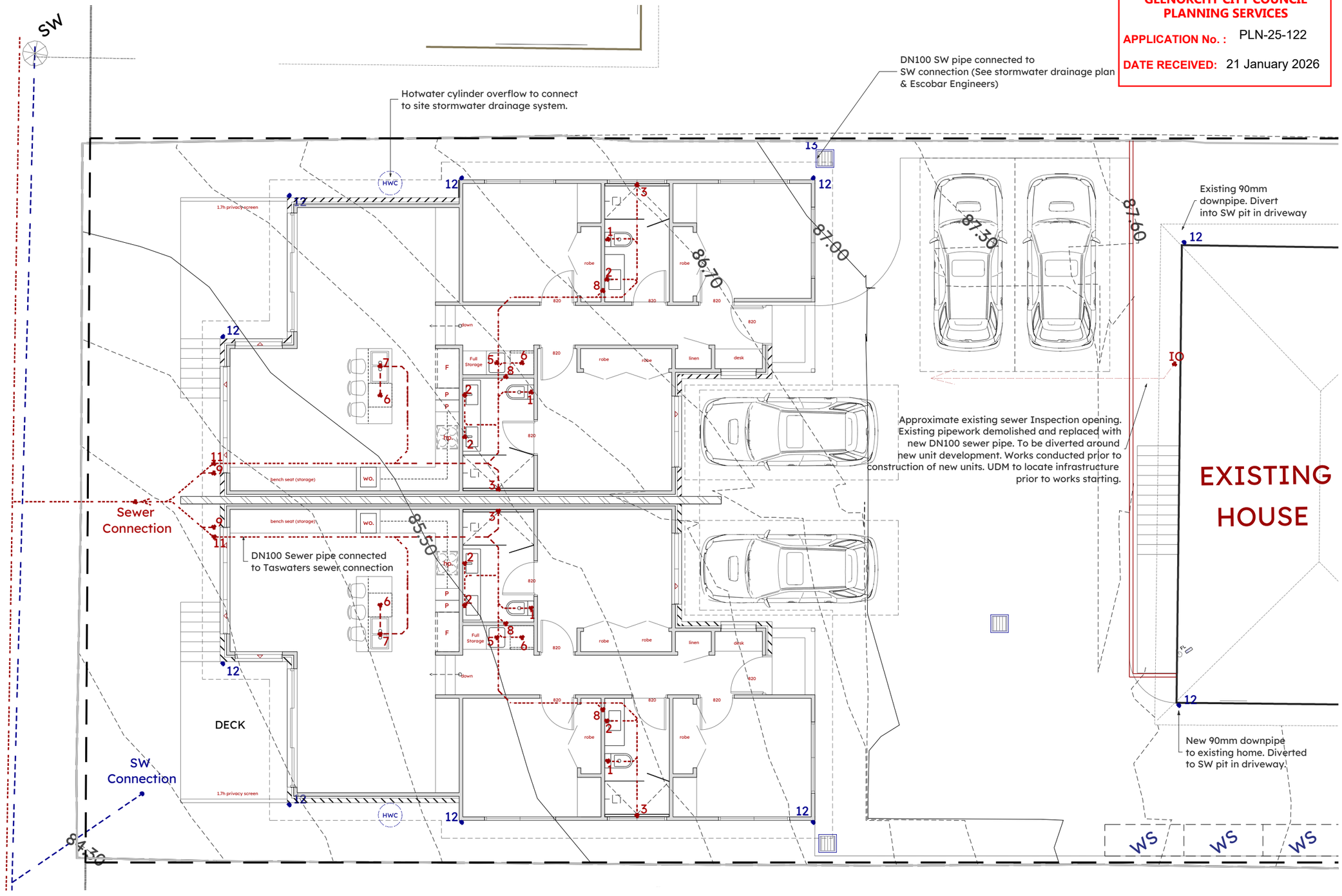
MINMUM GRADIENT ON PIPES AS PER AS3500 7.3.5
DN90 = 1:100
DN100 = 1:100

MINIMUM GRADIENT ON SEWER PIPES AS PER AS3500:2021 4.4
DN65 = 1:40
DN100 = 1:60
DN 150 = 1:100

Gutters & Downpipes to comply with BCA part 3.5.2

PLUMBER TO CONFIRM ALL DETAILS ON SITE PRIOR TO COMMENCING ANY WORK AND BE INSPECTED AND APPROVED BY A QUALIFIED ENGINEER.

NOTE -
Location of drainage pipes indication only of type and direction.
Contractor to verify the location of drainage pipes within existing boundary of site.



DRAINAGE LEGEND

1 WC - 100mm
2 HANDBASIN - 50mm
3 SHOWER - 50mm
4 BATH - 50mm
5 LAUNDRY TROUGH - 50mm
6 WASHING MACHINE
7 KITCHEN SINK - 50mm
8 VENT - 50mm
9 TAP CHARGED ORG min 150mm below FFL
10 RAINWATER PIPE
11 INSPECTION OPENING TO GROUND LEVEL - 100mm
12 DOWNPIPE - 90mm
13 450mm GRATED PIT
14 SPREADER PIPE - 75/90mm
15 450mm GRATED PIT WITH GRATED DRAIN
16 TILE INSERT SQ DRAIN

2 DRAINAGE PLAN

SCALE: 1:100

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CORROSION PROTECTION

Builder must implement corrosion protection. Exposed steel should be hot dipped galvanised. Fixings and connectors should be at minimum galvanised or stainless steel where required.

Steel framing as per NCC 2019 Part 3.4.2.2 & Table 3.4.4.2

Metal roof cladding as per NCC 2019 Part 3.5.1.3 & Table 3.5.1.1a

STRUCTURAL

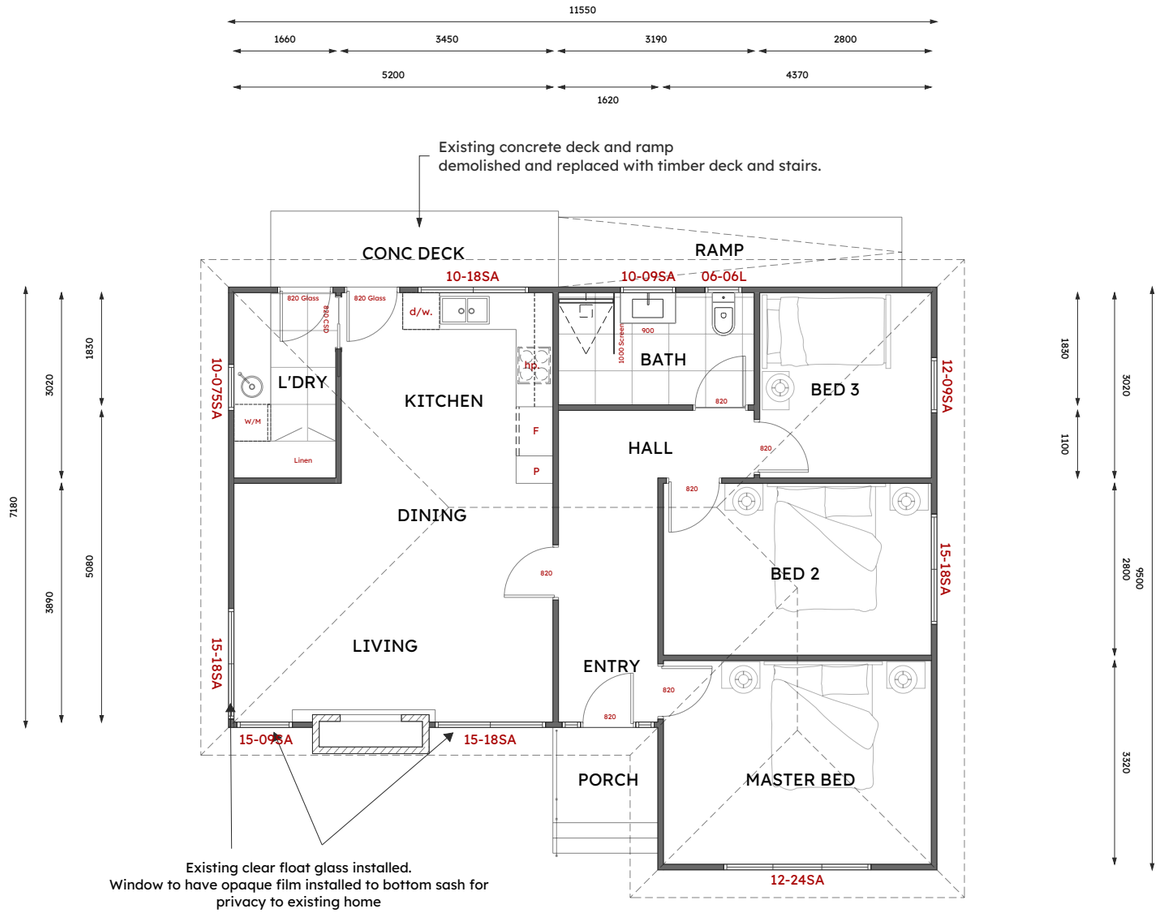
Engineers documentation to take precedence over details contained in this document. Where discrepancies are identified, designer and engineer are to be notified prior to commencement of work.

TRUSSES BY OTHERS

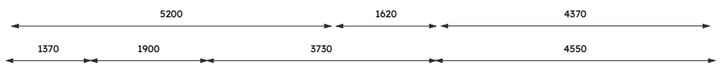
Truss plans by others. Truss tie downs and strap bracing to be specified by truss manufacturer.

STAIRS & RAMPS

Construction in accordance with NCC Part 11.2.
Barriers and handrails in accordance with NCC Part 11.3.
See elevations for handrail location



GROUND FLOOR AREA 93.49m²



3 EXISTING HOUSE FLOOR PLAN

SCALE: 1:100

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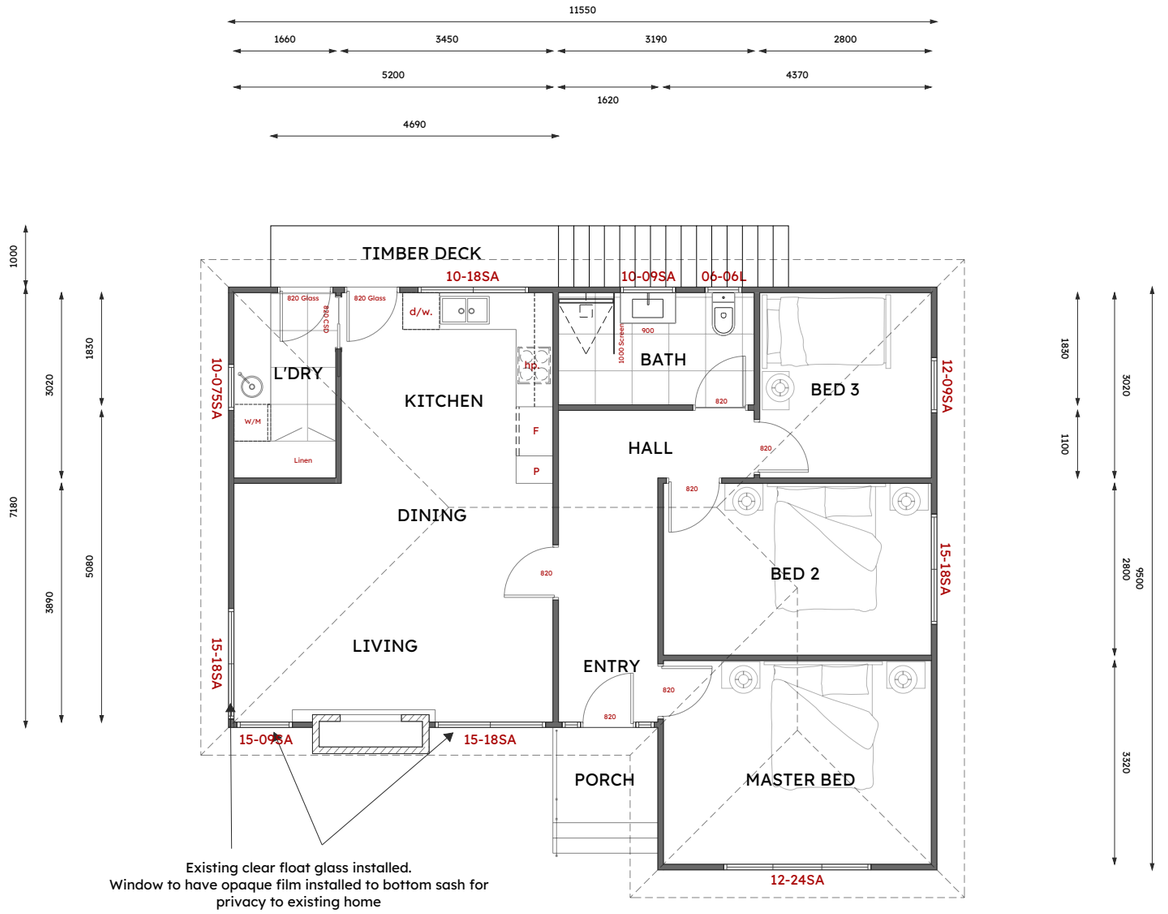

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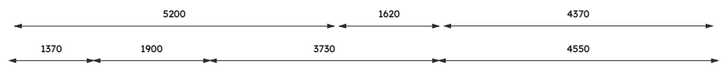

3 PROPOSED HOUSE FLOOR PLAN

SCALE: 1:100

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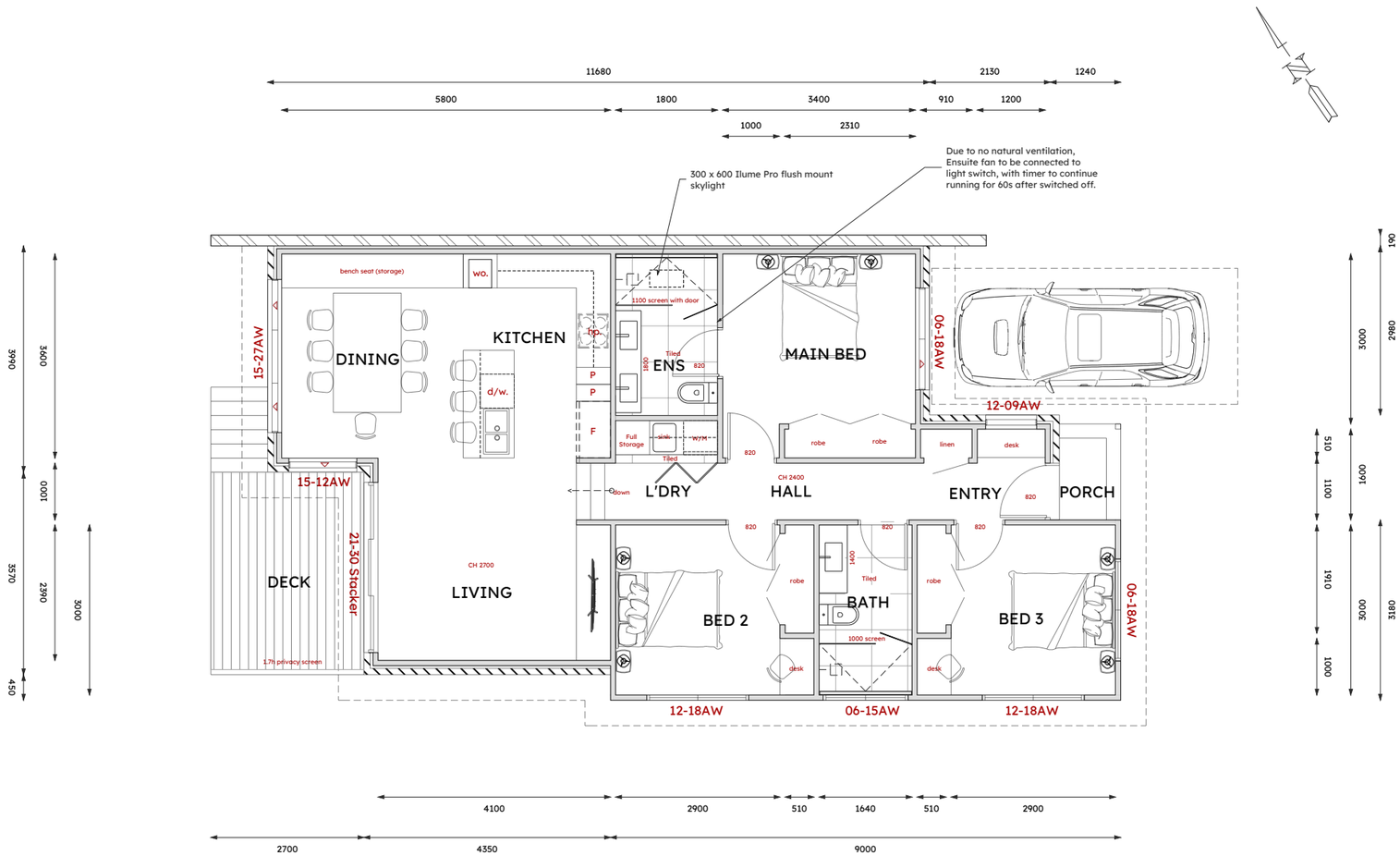

UNIT 1 PLAN

GROUND FLOOR AREA 95.86m²

DECK AREA 9.64m²

3 PROPOSED UNIT 1 FLOOR PLAN

SCALE: 1:100

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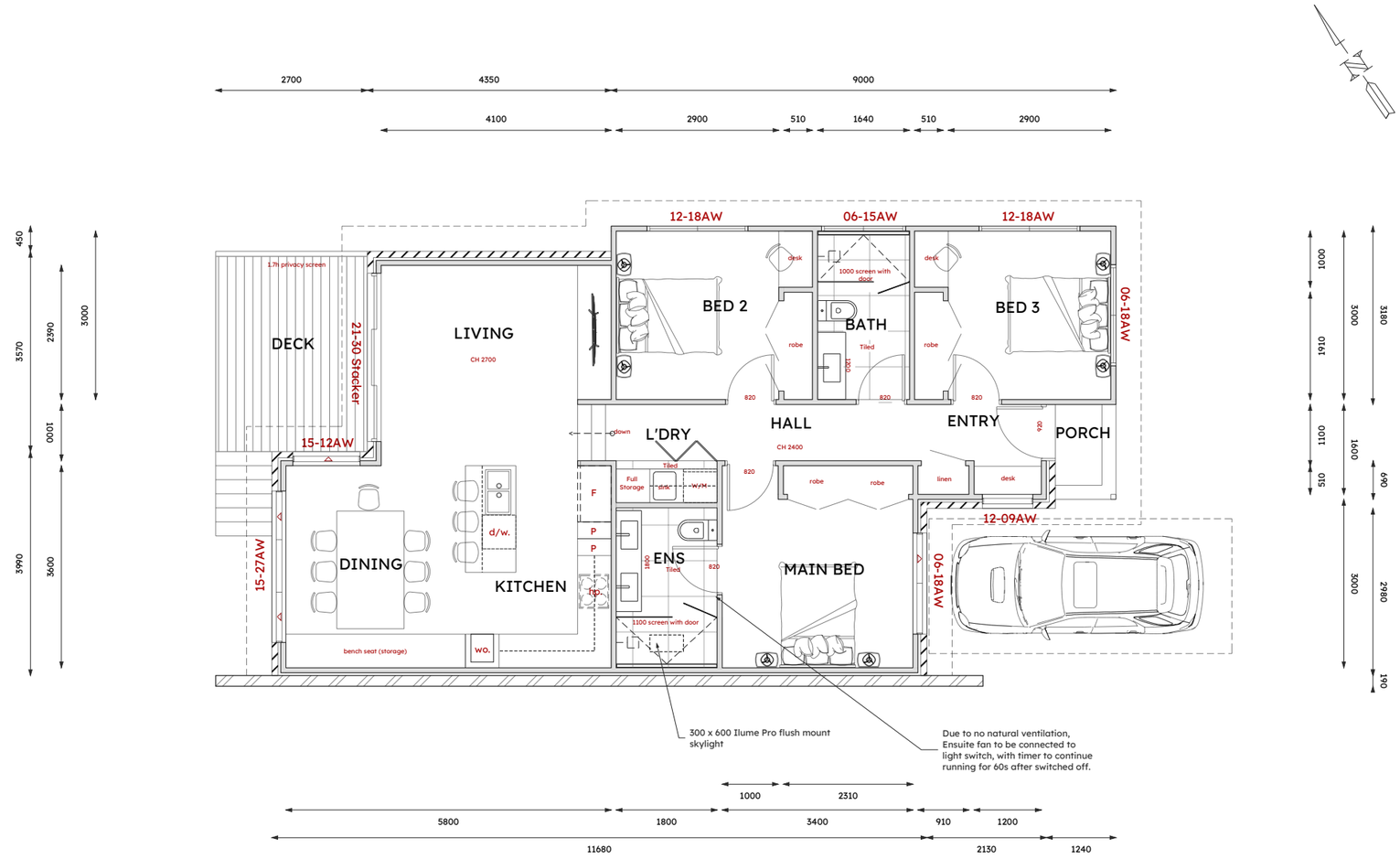

UNIT 2 PLAN

GROUND FLOOR AREA 95.86m²

DECK AREA 9.64m²

3 PROPOSED UNIT 2 FLOOR PLAN

SCALE: 1:100

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DN65 = 1:40
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ROOFWATER DRAINAGE:

Refer to NCC HP 7.4 Gutters and Downpipes for more details

Rainfall intensity (Hobart) - eaves gutters - 86ml/hour (1 in 20 years)
- valley/box gutters - 120ml/hour (1 in 100 years)

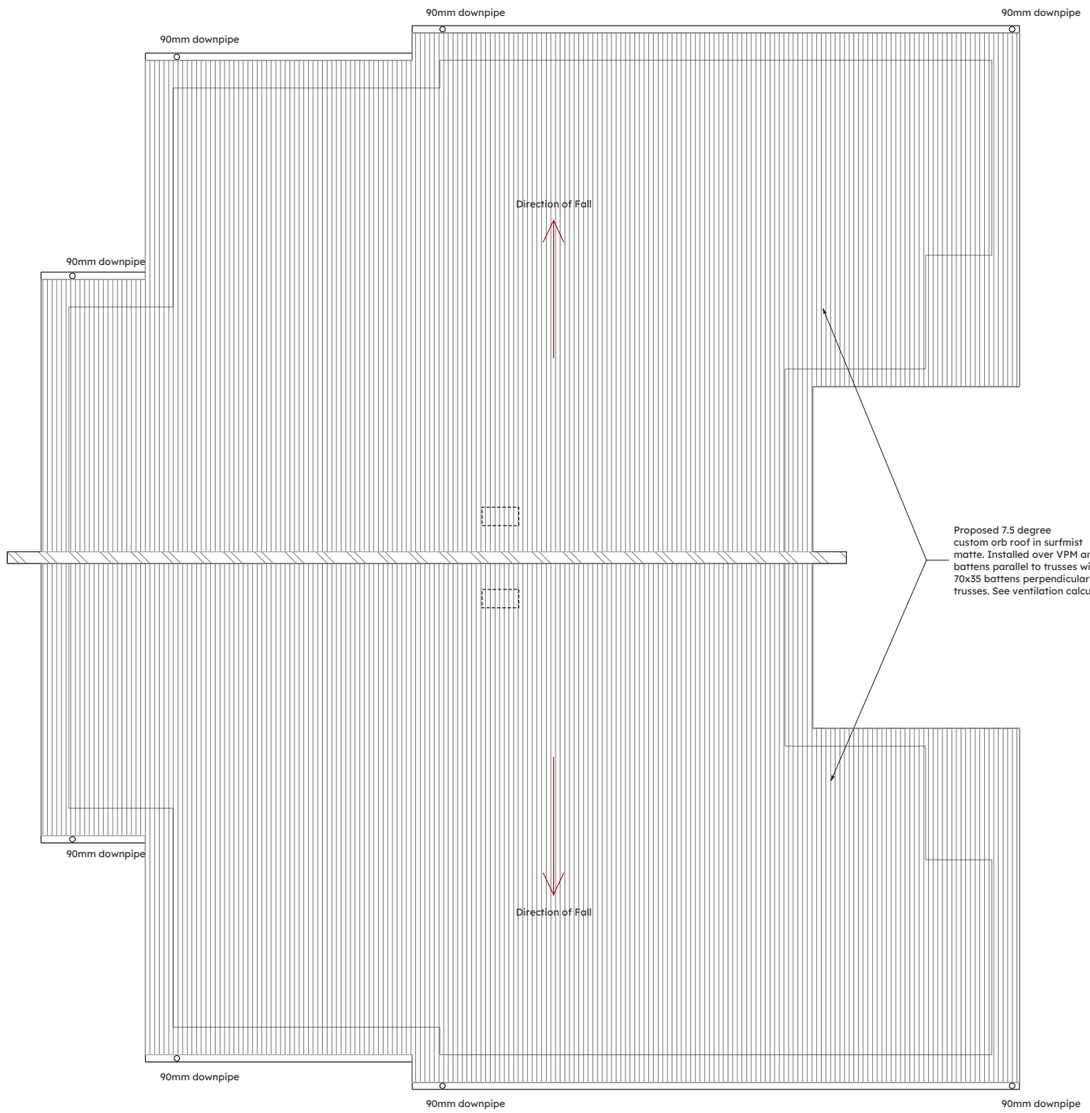
Size of downpipes (max.12m spacings) - 90mm dia. min.
Size of eaves gutter (min 1:500 fall) - 115D min.
Size of box gutter (min 1:100 fall), not more than 12.5 % pitch.
Valley gutters - 400mm min.width not less than 150mm roof covering overhang each side of the gutter or not more than 12.5 % - must be designed as a box gutter.

Number of downpipes/spreader pipes required - 4 minimum per unit

*DP denotes Downpipe
*SP denotes Spreader to lower roof
*All RH's (rainwater heads) to be fitted with overflow protectors and to be set 25mm below freeboard of box gutter for additional protection Min. dimensions 400 width x 150 length x100 depth

Denotes Roofing Area

DP
Denotes 90mm downpipe



4 ROOF PLAN
SCALE: 1:100

VENTILATION CALCULATIONS PER UNIT:

Ventilated opening
from drainage
battens (35mm) = 0.540m² (calculation assumed on full ventilation efficiency)

Roof Area = 117.08 x 0.003
= 0.351m² ventilated opening

Ventilation Required = 0.351m²
Ventilation Specified = 0.540m²

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5 SECTION
SCALE: 1:100

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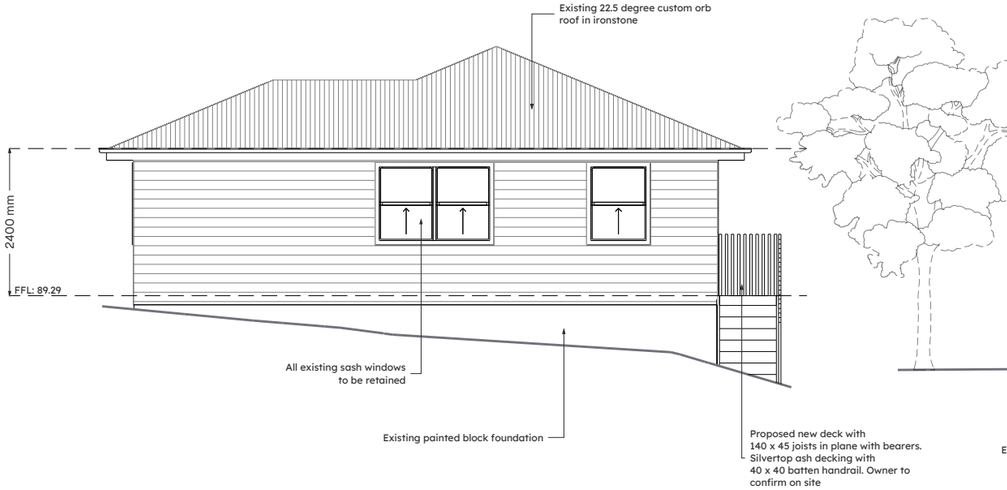
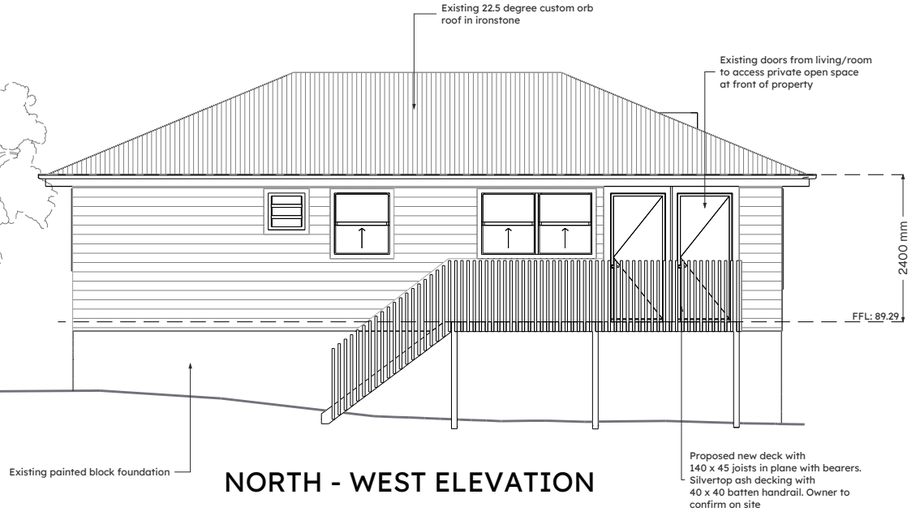
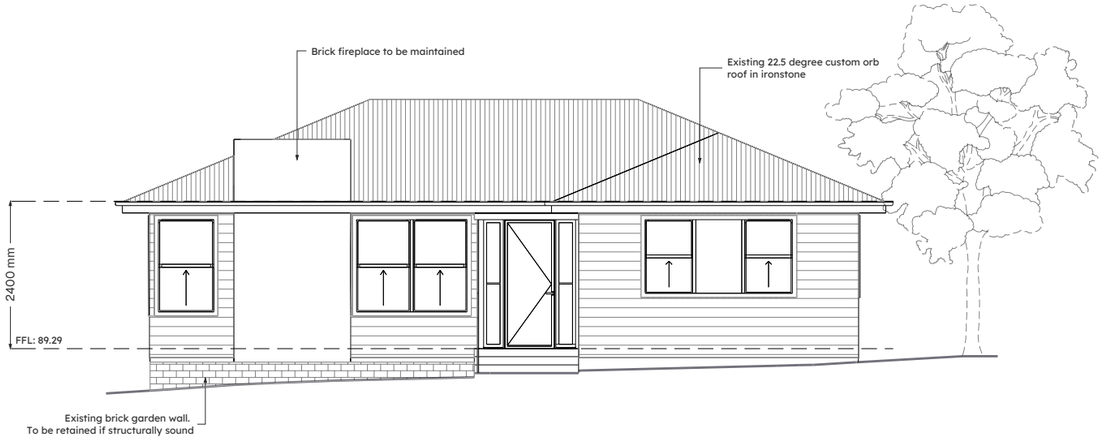


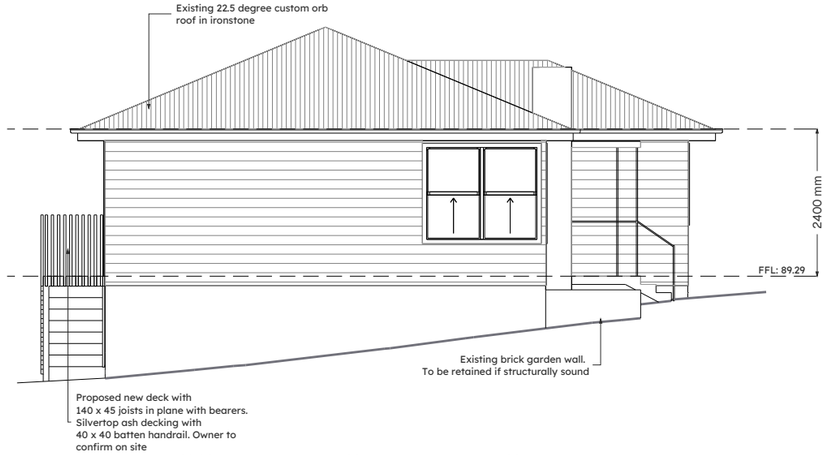
SOUTH- EAST ELEVATION



NORTH - WEST ELEVATION



SOUTH- EAST ELEVATION



SOUTH - WEST ELEVATION

6 EXISTING HOUSE ELEVATIONS

SCALE: 1:100

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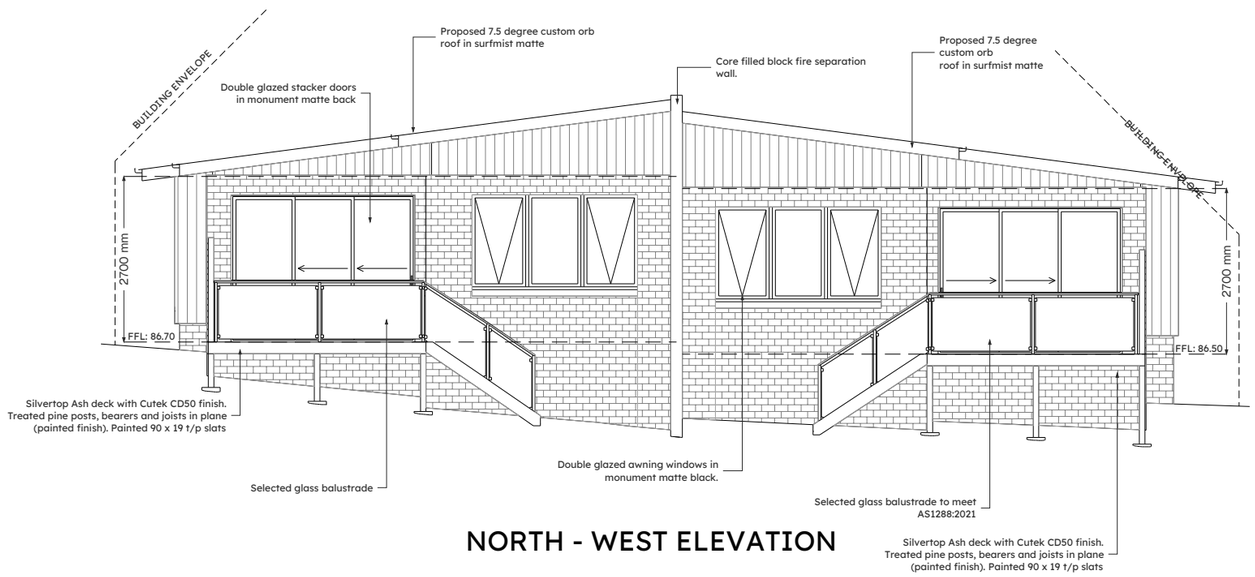

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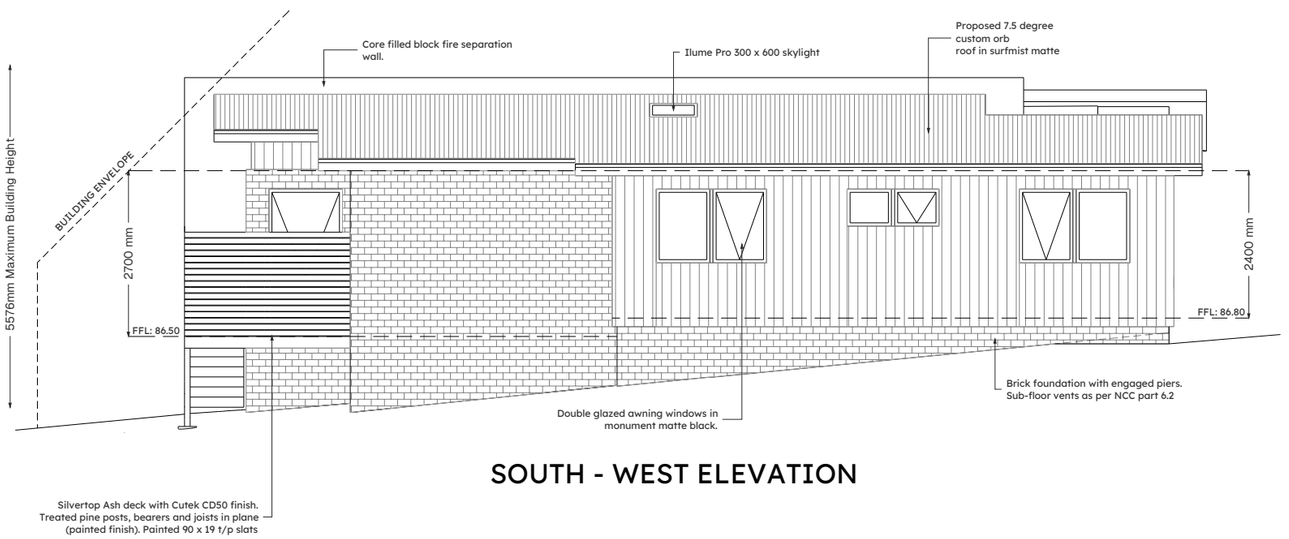
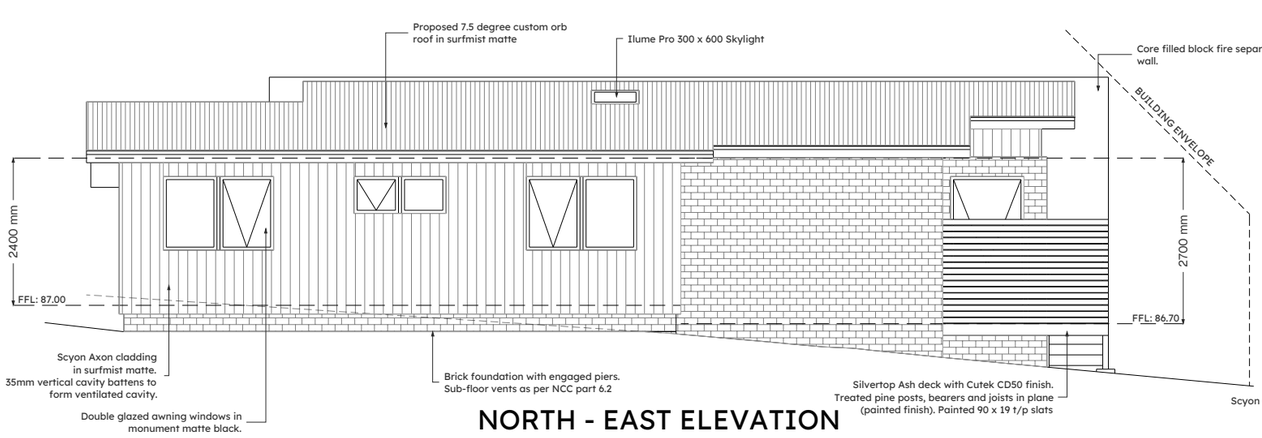
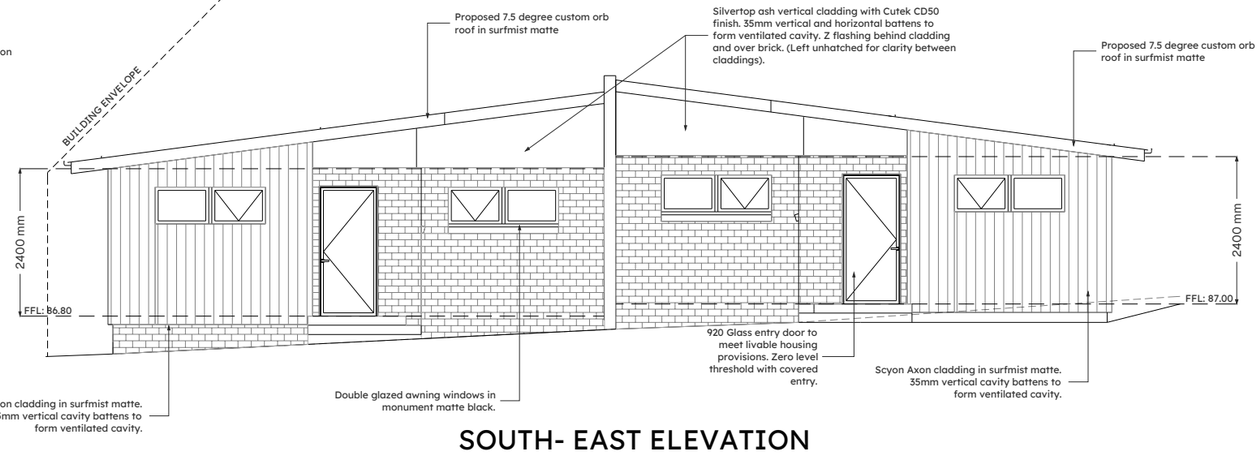


SOUTH - WEST ELEVATION



NORTH - EAST ELEVATION



SOUTH- EAST ELEVATION

6 **PROPOSED UNIT ELEVATIONS**
SCALE: 1:100

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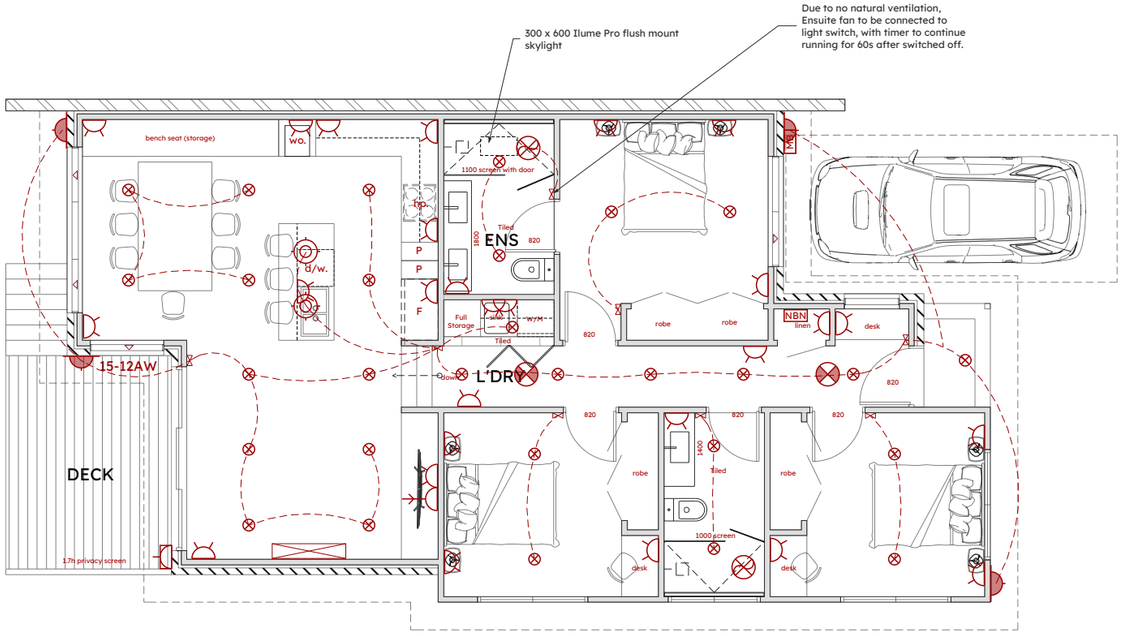
LEGEND

- STANDARD CEILING LIGHT (14W)
- LED DOWNLIGHT (9W)
- PENDANT LIGHT (9.5W)
- INTERNAL WALL LIGHT POINT (20W)
- EXTERNAL WALL LIGHT POINT
- SINGLE FLUORESCENT LIGHT (28W)
- WALL MOUNTED AIR CONDITIONER
- 2 LIGHT/HEATER/EXHAUST (1110W)
- 4 LIGHT/HEATER/EXHAUST (1110W)
- SINGLE GPO
- DOUBLE GPO
- EXTERNAL GPO
- EXHAUST FAN TO OUTSIDE AIR
- SMOKE ALARM INTERCONNECTED
- TELEVISION CONNECTION POINT
- PHONE CONNECTION POINT
- STAIR TRED LIGHTS (3W)
- MB METER BOX
- NBN NBN HUB
- SECURITY SENSOR
- SECURITY KEY PAD
- SENSOR LIGHT
- SPOT LIGHT
- DP 90DN DOWNPIPE
- SP 90DN DOWNPIPE (SPREADER)
- LIGHT SWITCH



UNIT 1 ELECTRICAL PLAN

ELECTRICIAN PLEASE NOTE:

- EXHAUST FAN DUCTED TO ATMOSPHERE
- SMOKE ALARM HARD WIRED WITH BATTERY BACKUP AND INTERCONNECTED

ENERGY NOTES:

- R2.5 INSULATION TO ALL EXTERNAL WALLS
- R2.5 SOUNDSHIELD TO ALL WET AREAS INCLUDING LAUNDRY
- R5 TO CEILINGS
- R2.5 INSULATION BETWEEN JOISTS
- ALL DOWNLIGHTS TO BE IC-4 RATED

7 ELECTRICAL PLAN
SCALE: 1:100

West Elevation Design

Telephone: 0433 062 839
Email: office@westelevation.com.au
Website:
www.westelevation.com.au

BUILDING CLASSIFICATION:1a & 10a - Dwelling & Garage

WIND CLASSIFICATION:Unassigned

SOIL CLASSIFICATION:Unassigned

CLIENT : Ruyin Lan & Lingwei Zhu

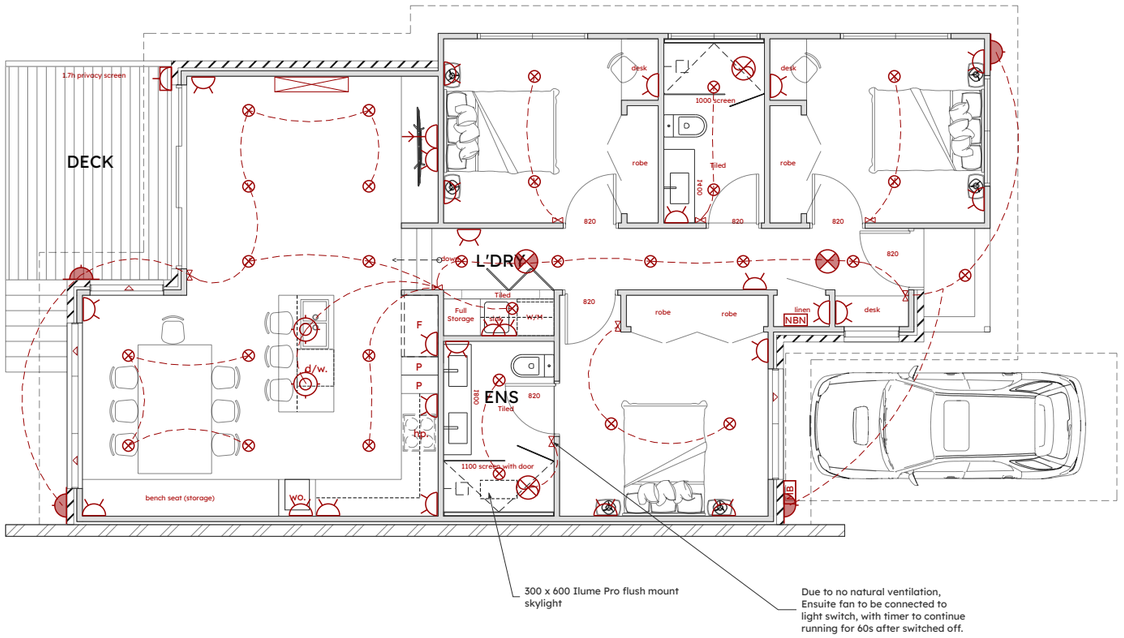
PROJECT ADDRESS : 10 Garden Grove, West Moonah

DATE: 09/04/2025

CHECKED: GD

LEGEND

- STANDARD CEILING LIGHT (14W)
- LED DOWNLIGHT (9W)
- PENDANT LIGHT (9.5W)
- INTERNAL WALL LIGHT POINT (20W)
- EXTERNAL WALL LIGHT POINT
- SINGLE FLUORESCENT LIGHT (28W)
- WALL MOUNTED AIR CONDITIONER
- 2 LIGHT/HEATER/EXHAUST (1110W)
- 4 LIGHT/HEATER/EXHAUST (1110W)
- SINGLE GPO
- DOUBLE GPO
- EXTERNAL GPO
- EXHAUST FAN TO OUTSIDE AIR
- SMOKE ALARM INTERCONNECTED
- TELEVISION CONNECTION POINT
- PHONE CONNECTION POINT
- STAIR TRED LIGHTS (3W)
- MB METER BOX
- NBN NBN HUB
- SECURITY SENSOR
- SECURITY KEY PAD
- SENSOR LIGHT
- SPOT LIGHT
- DP 90DN DOWNPIPE
- SP 90DN DOWNPIPE (SPREADER)
- LIGHT SWITCH



UNIT 2 ELECTRICAL PLAN

ELECTRICIAN PLEASE NOTE:

- EXHAUST FAN DUCTED TO ATMOSPHERE
- SMOKE ALARM HARD WIRED WITH BATTERY BACKUP AND INTERCONNECTED

ENERGY NOTES:

- R2.5 INSULATION TO ALL EXTERNAL WALLS
- R2.5 SOUNDSHIELD TO ALL WET AREAS INCLUDING LAUNDRY
- R5 TO CEILINGS
- R2.5 INSULATION BETWEEN JOISTS
- ALL DOWNLIGHTS TO BE IC-4 RATED

7 ELECTRICAL PLAN
SCALE: 1:100

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BUILDING CLASSIFICATION:1a & 10a - Dwelling & Garage

WIND CLASSIFICATION:Unassigned

SOIL CLASSIFICATION:Unassigned

CLIENT : Ruyin Lan & Lingwei Zhu

PROJECT ADDRESS : 10 Garden Grove, West Moonah

DATE: 09/04/2025

CHECKED: GD

8 EXTERNAL PERSPECTIVES
SCALE: 1:100

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BUILDING CLASSIFICATION:1a & 10a - Dwelling & Garage

WIND CLASSIFICATION:Unassigned

SOIL CLASSIFICATION:Unassigned

CLIENT : Ruyin Lan & Lingwei Zhu

PROJECT ADDRESS : 10 Garden Grove, West Moonah

DATE: 09/04/2025

CHECKED: GD

UNIT DEVELOPMENT
10 GARDEN GROVE
WEST MOONAH

DRAWING INDEX

LEGEND

- 9.60 — Existing surface level (surveyed)
- 9.60 EX — Existing surface level (interpolated)
- 9.80 — Proposed bulk earthworks level
- 9.80 — Proposed finished surface level
- EX W — Existing water supply external to building
- W — Proposed water supply external to building
- EX FS — Existing fire supply
- FS — Proposed fire supply
- EX S — Existing sewer drain
- S — Proposed sewer drain
- GW — Proposed sewer drain (greasy waste)
- TW — Proposed sewer drain (trade waste)
- EX SW — Existing stormwater drain
- SW — Proposed stormwater drain
- Proposed stormwater (larger)
- Proposed DN100 ag. drain and geofabric sock

REV	DESCRIPTION	DATE
0	BUILDING APPROVAL	24/10/25
1	REVISED FOR BUILDING APPROVAL	12/11/25
2	REVISED FOR BUILDING APPROVAL	01/12/25
3	REVISED FOR BUILDING APPROVAL	19/01/25

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CLIENT: LAN & ZHU
ADDRESS: 10 GARDEN GROVE WEST MOONAH
SHEET: DRAWING INDEX
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN	DESIGNED	VERIFIED	DATE
NE	NE	-	24/10/25

SCALE	SIZE
N.T.S	A3

S&E REF	DRAWING	REVISION
25366	C001	3

GENERAL

1. These drawings shall be read in conjunction with all other contract drawings and specifications. Any discrepancies shall be referred to S&E for clarification.
2. Setting out dimensions and levels shown on the drawings shall be verified by the Contractor prior to commencement.
3. Dimensions shall not be obtained by scaling these drawings.
4. During construction the Contractor shall maintain excavations and structures in a stable condition and ensure that no part is overstressed under construction activities.
5. The contractor is responsible for the creation and maintenance of temporary site accesses. Strengthening of design pavements to carry construction vehicles (in excess of the design allowance) shall be at the contractor's expense.
6. Location and verification of existing services is the contractor's responsibility. Refer any services discovered onsite which are not shown on the drawings, or are in a different location to that shown to S&E. Seek confirmation from S&E that redundant services are able to be sealed and abandoned prior to doing so.
7. Protect all existing services and other infrastructure from damage during construction. Should damage occur, advise S&E immediately along with details of proposed remedial action. The cost of remedial work (including redesign if required) shall be borne by the contractor.
8. The contractor is responsible for undertaking whatever dilapidation surveys of existing buildings/infrastructure they consider necessary prior to construction commencing, and consultation with adjoining land owners to minimise disruption to services/access etc. during construction.
9. All surplus construction materials (including excess cut and fill material) shall be removed from the site (unless instructed otherwise) at completion.
10. Survey information has been supplied by Leary & Cox Surveyors for the purposes of preparing the design drawings. All other survey required to setout and construct the works shall be provided by the contractor.
11. All works are to be undertaken by the contractor and his subcontractors unless noted otherwise on the drawings.
12. Proposed changes to the design of any part of the works shall be submitted to S&E for review. The contractor shall bear all costs associated with the design change.
13. On completion, the contractor is to supply as-constructed drawings (prepared by a licensed surveyor in accordance with AS1100.401) and full service manual in both hard copy (3 sets) and electronic (.pdf and .dwg) formats.
14. The contractor is to allow for all testing of raw materials and constructed works that is required to demonstrate compliance with the nominated Australian Standards, specifications, and standard drawings.

EARTHWORKS

E1. All earthworks shall be in accordance with AS3798 "Guidelines on earthworks for commercial and residential developments" with testing methods in accordance with AS1289 "Methods of testing soils for engineering purposes".

E2. All existing topsoil, vegetation and debris under the building and paved areas shall be stripped to a minimum of 300mm unless noted otherwise. Top soil to be stockpiled as directed, and vegetation and debris removed from site unless noted otherwise. Tree stumps shall be grubbed and holes filled with approved compacted fill.

E3. For excavation purposes, rock is defined as hard or strongly cemented beds or masses which cannot be ripped at a production rate exceeding 3 m^3 per hour using a standard 20 tonne excavator attached with a rock breaker.

E4. Any interface between cut and fill shall be no steeper than 1V:3H. Cut horizontal benches for any fill placed on ground steeper than 1V:3H.

E5. All excavations shall be inspected by the Engineer and/or the Local Authority before proceeding any further. Inspection and testing shall occur after each lift during filling. Testing (in accordance with Table 8.1 of AS3798.1) shall be arranged by the contractor such that results are available at time of inspection.

E6. Subgrade shall be compacted to achieve 98% standard density ratio for cohesive soil, and 75% density index for cohensionless soil. Prior to filling, subgrade is to be proof roll tested. All proof roll testing is to be witnessed by the Engineer. The test shall consist of witnessing soil deflection from the tyre of a single rear axle truck driven at walking speed with a minimum 8 tonne rear axle load and a tyre pressure of 550 kPa. The allowable deflection of subgrade shall not be more than is just visible to an observer standing still as the test vehicle passes, and no visible movement is allowed for sub-base and base tests. Other vehicles that may be allowed by the Engineer are a 12 tonne static roller with 6 tonne/m load, or 20 tonne plant with 450 kPa tyres and greater than 0.035 m^2 contact area per tyre.

E7. Fill shall be placed in horizontal layers of 200 to 300 mm deep loose measurement, unless testing can demonstrate to the Engineer that compaction is adequate within larger lifts. Compact each layer of fill within 1% of its optimum moisture content. Maximum particle size is two thirds depth of each lift. Each layer is to be proof roll tested, using nuclear density testing as directed to achieve 98% standard density ratio. For material 60 mm and courser, in-lieu of density testing a test by deflection to done using spot level difference at representative locations before and after rolling three times with 12 tonne roller, with acceptable differences being less than 2 mm.

E8. Cohesionless (granular) fill to be used unless otherwise approved by the Engineer. Cohesionless (granular) fill to have less than 15% passing the 75 micron sieve, with grading curves submitted for approval. Cohesionless fill shall be compacted to the requirements of Table 5.1 of AS3798. Cohesive fill shall have a minimum 4 day soaked CBR of 5% and a maximum CBR swell of 1%. Minimum standard density ratios for cohesive material shall be as per Table 5.1 of AS3798. Reactive clay shall have a maximum standard density ratio of 100%. Landscaping zones should be compacted to standard density ratio of 85% unless noted otherwise.

ROADWORKS

R1. All works to be in accordance with Local Governm IPWEA standard drawings.

R2. It is assumed roads accessing the development site are adequate to take the design traffic load during the design life of 40 years.

R3. Pavement depth shall be as shown on the typical cross section but shall be subject to CBR testing of subgrade or proof rolling, with final depth shall be confirmed by the Engineer.

R4. Kerb and channel shall be formed on a minimum of 100mm sub-base (see note R7) which shall extend a minimum 150 mm beyond the back of the kerb.

R5. Subsoil drains shall be formed as shown on the drawings and in accordance with AS/NZS3500.

R7. All radii are to the back of kerb.

R8. The road profile and cross-fall shall be finished to the satisfaction of the Engineer and shall be to line and level indicated on the drawings, free of any local high or low areas which may hold water.

R9. All gravel to comply with the following DIER specifications:
Base course: R40 class A - 19 mm Fine Crushed Rock (FCR)
Sub-base course: Sub-base 1 - 40 mm FCR

R10. Sub-base shall have a minimum modified density ratio of 95% and base to have a minimum modified density ratio of 98%, with nuclear density test results available at proof roll inspection. Tests to be taken at a frequency based on AS3798 (typically the greater of four tests per inspection or one test per 1000 m^3).

R11. Proof roll shall be with a Truck using a single rear axle, tyres at 550 kPa, and the load over rear axle shall be 8 tonnes.

R12. All landscaped areas affected by the works are to be reinstated to match existing. Refer Landscape Architect for specific requirements.

R13. Concrete footpaths and driveways are to be constructed to the Municipal Standard drawings unless noted otherwise.

APPROVALS

1. Prior to construction commencing, the Contractor is responsible for ensuring that a valid building and engineering permit is in place for the work & that the relevant authorities are notified and allowed to inspect at the nominated hold points.
2. Unless nominated otherwise, the following inspection regime is to be adopted:
   - Road formations:
     Inspection of subgrade, subbase and base lifts, kerbing and seal undertaken by S&E;
   - Stormwater:
     Inspection of stormwater infrastructure to be owned by the local council undertaken by the local council;
   - Sewer and water:
     Sewer and water infrastructure to be owned by TasWater inspected and self certified by civil contractor or their subcontractor;
   - As-built services surveys
     Water, sewer, stormwater surveys undertaken by contractor's licensed surveyor (depth of water reticulation recorded prior to backfilling);
   - Installation of other in-ground services
     Power, communications, gas etc. undertaken by the relevant managing authority.
3. A minimum of 24 hours notice is required for S&E to attend the site. Do not rely upon facsimile or email to communicate requests - make contact with our office to confirm attendance.
4. Inspection of road formations may involve proof rolling with a test vehicle. Confirm with S&E and ensure a suitable vehicle is available at the time of inspection.
5. Photographic documentation is not an adequate basis to proceed beyond a hold point unless approved by S&E.

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CLIENT: LAN & ZHU
ADDRESS: 10 GARDEN GROVE WEST MOONAH
SHEET: GENERAL NOTES 1
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN	DESIGNED	VERIFIED	DATE
NE	NE	-	24/10/25

SCALE: N.T.S
SIZE: A3
S&E REF: 25366
DRAWING: C002
REVISION: 3

STORMWATER

SW1. All works to be in accordance with Local Government Association Tasmania - IPWEA standard drawings.

SW2. All materials and workmanship shall be in accordance with the local authority's specifications, standard drawings, by-laws and AS/NZS3500.

SW3. Pipe and channel infrastructure has been designed to convey 20 year average recurrence interval (ARI) storms, with overland flow paths provided for 100 year ARI storms. It is assumed that water flowing onto the development site is contained within Local Authority infrastructure for 20 year ARI storms and the road reserve for 100 year ARI storms. For storms up to 24 hours duration, an allowance of 25% extra rainfall intensity has been made due to protected future climate change in Tasmania (above the 30-years-to-1983 intensities compared to projected ones in approximately 2080).

SW4. Stormwater trenches, pipe bedding and back filling to comply with the Concrete Pipe Association of Australia installation requirements for type HS2 support.

SW5. Below ground pipework and fittings to be PVC-U SWHD, joints shall be of solvent cement type or flexible joints made with approved rubber rings.

SW6. Minimum grade of paved areas and pipework shall be 1 in 100. Paved areas ideally shaped to drain to grated pits and trenches without ponding (acceptable limit is 3 mm under a 2 m straight edge).

SW7. Surface water drains, catchpits/grated pits, and junction boxes shall be constructed as detailed or as specified by the manufacturer. Grated pits to have 150 mm sumps. Pits and lids to be Class A in non-trafficked areas, and pre-cast concrete Class C elsewhere. Convey trench water into pits/manholes through weep holes on upstream side using 2 m of DN100 ag-drain with filter sock.

SW8. Install all agricultural drains to the requirements of AS/NZS3500 and part 3.1.2. of the BCA.

SW9. All hydraulic connections and tapings to be clear of driveways and trafficked areas.

SW10. Where both stormwater and sewer lines are along rear and side boundaries they shall be located to fit inside a 3.0 m easement unless noted otherwise. A single line shall fit within a 2.0 m easement.

SW11. All manholes to be located clear of future fencelines.

SW12. Property connections to be clear of driveways and clear of future fencelines.

SEWER

S1. All works in accordance with the Sewerage Code of Australia W.S.A. 02-2002-2.3 M.R.W.A. Edition - Version 1 and TasWater's Supplement (Draft 05 issued May 2013).

S2. Property connections to be DN100 PVC-U with a minimum grade of 1 in 60. (Refer above code WSAA SEW-1106). To be located clear of trafficked areas, driveways and fences.

S3. Where both stormwater and sewer lines are along a rear or side boundary they shall be located in an easement that wholly contains both services. Refer TasWaters Supplement Clause 4.2.5. and Clause 4.4.5.2 for clearances to other services.

S4. All manholes to be located clear of future fence lines with end of lines to be 1.2 m past the boundary for any future extension. Refer Clause 4.3.6.

WATER

W1. All works in accordance with the Water Supply Code of Australia W.S.A. 03-2011-3.1 M.R.W.A. Edition - Version 2 and TasWater's Supplement (Draft 03 issued May 2013)

W2. Single house connections to be DN25 HDPE class 16 to TasWater's standard drawing TW-SD-W-20 series with meter, backflow device and box to each lot. Located 500 mm inside boundary and 500 mm from edge of driveway on middle side of lot.

W3. All water mains to be tested and witnessed by the relevant water corporation inspector to static pressure plus 50% prior to backfilling.

W4. All hydraulic connections and taping to be clear of driveways and trafficked areas.

W5. For minimum cover over pipes refer to Clause 7.4.2 of the above Supplement.

W6. All trenches under trafficked areas to be back filled with approved compacted FCR including future driveway extensions.

W7. Flushing of mains to be carried out in accordance with the manufacturer's recommendations.

W8. Electromagnetic tracker tape to be placed in all water main trenches above the pipe.

W9. Taping and takeoffs to be separated by at least 1000 mm.

W10. Water mains to be bedded on 80 mm approved 7 mm clean metal.

W11. Concrete anchor blocks to be provided at all sudden changes of direction, both vertically and horizontally at tees and end of lines. Refer to above code drawings MRWA-W-205B and MRWA-W-205C.

W12. Road crossings:

DN100 PVC-U conduits for all HDPE.

DICL with PE wrapping sleeve as per City West Water approved products catalogue.

W13. For valve and hydrant surface box markings refer to Clause 8.10.3 of the above Supplement. Hydrant road markings to comply with the Institute of Municipal Engineering Australia Tasmania Division document titled Fire Hydrant Guidelines - refer section 8. All valves and hydrants to be resilient seated powder coated class 16 and all components to be DN100.

RETAINING WALLS

RW1. Retaining walls shall be constructed in accordance with AS4678-2002.

RW2. Backfill to walls shall be an approved granular material (clay shall not be used). A 300mm wide free draining drainage layer shall be provided behind the wall.

RW3. Provide a suitable waterproofing system to the rear of the wall, unless confirmed otherwise.

RW4. The wall shall be drained with 100mm slotted PVC pipe installed at 1% fall (minimum) and be connected to the stormwater disposal system (or weepholes installed at the base where appropriate).

RW5. The Contractor shall maintain excavated batters at a stable slope and provide shoring to steeper excavations until construction and backfilling of the wall is complete.

RW6. Retaining walls that rely on other structural elements for stability shall be provided with temporary support until after these elements have been constructed.

RW7. The Contractor shall allow a suitable curing period prior to backfilling. Backfilling shall be performed in a controlled manner which will not impose excessive stress on the wall.

CONCRETE

C1. All workmanship and materials shall be in

C2. Concrete grades (UNO on drawings) :

ELEMENT	Grade
General	N25
Footings	N20
Blinding	N15
Pavement	N25

C3. Concrete shall not be poured when the site temperatures are below 5°C.

C4. Concrete shall be cured by continuous wetting (water spray, ponding or irrigated hessian) or application of an impermeable membrane (secured plastic or curing compound) for an appropriate period of time (not less than 3 days). In hot dry and windy weather spray the surface with aliphatic alcohol while concrete is plastic, water cure for at least 24 hours then cover with impermeable membrane (or continue to water cure) for a further 2 days.

C5. Construction joints shall be properly formed and used only where shown or specifically approved by the Engineer. Sawn joints shall be cut one third of the way through a slab, through the top mesh for 100 mm slabs and in thicker slabs the mesh shall be placed to avoid being cut. Unless noted elsewhere, sawn joints shall be at 6 m centres at points of changes in geometry and construction joints at 24 m, with jointed areas to have a plan aspect ratio no slenderer than 1:2.

C6. Cover to reinforcement shall be 40 mm for slabs and 50 mm for footings.

C7. Reinforcement shall be deformed, 500 MPa yield strength, normal (N) ductility in accordance with AS/NZS4671 for bars and low (L) ductility for mesh.

C8. Formwork shall be designed and constructed in accordance with AS3610, and is the responsibility of the contractor.

C9. All steel items to be cast into the concrete surface shall be hot dip galvanised.

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CLIENT: LAN & ZHU
ADDRESS: 10 GARDEN GROVE WEST MOONAH
SHEET: GENERAL NOTES 2
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

SCALE: N.T.S
SIZE: A3
S&E REF: 25366
DRAWING: C003
REVISION: 3

CONSTRUCTION RISK ASSESSMENT

THIS CONSTRUCTION RISK ASSESSMENT IS TO HIGHLIGHT TO THE BUILDER, SUB CONTRACTORS AND SUB CONSULTANTS THE MAIN RICK FACTORS IN UNDERTAKING THE CONSTRUCTION OF THE WORKS TO WHICH THESE NOTES FORM PART OF THE WORKING DRAWINGS.

THIS ASSESSMENT IN NOT EXHAUSTIVE AND THE BUILDER IS TO UNDERTAKE THEIR OWN SIMILAR ASSESSMENT AND MAINTAIN APPROPRIATE RISK MANAGEMENT ACTIVITIES FOR THE DURATION OF THE CONSTRUCTION PERIOD.

IT IS THE BUILDER RESPONSIBILITY TO ENSURE ALL PERSONNEL THAT ENTER THE CONSTRUCTION SITE ARE BRIEFED ON THE SPECIFIC SAFETY HAZARDS AND RISKS ASSOCIATED WITH THE DAILY ACTIVITIES.

WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH CURRENT WORK AND WORK AND HEALTH SAFETY REQUIREMENTS.

THIS SITE SPECIFIC RISK ASSESSMENT ASSIGNS A RISK RATING ACCORDING TO THE FOLLOWING MATRIX. THIS ASSIGNS THE MAIN CONSTRUCTION TASK A LIKELIHOOD (L), SEVERITY (S) AND RESULTING RISK RATING (R).

S&E HAS TO THE BEST OF THEIR ABILITY, UNDERTAKEN TO IDENTIFY POTENTIAL CONSTRUCTION HAZARDS AND MINIMIZE THE RISK POTENTIAL TO THOSE INVOLVED WITH THE CONSTRUCTION OF THESE WORKS.

			Severity (S)					
			H	Fatality, major injury causing long term disability	M	Injury or illness causing short term disability	L	Other injury or illness
Likelihood (L)	H	Certain or near certain	3		3		2	
	M	Reasonably likely	3		2		1	
	L	Very seldom	2		1		1	

Risk Rating (R)

3	High risk	Action required by contractor to mitigate or eliminate risk.
2	Medium risk	Action required by contractor to reduce risk.
1	Low risk	No direct action required by the contractor.

Hazard risk register and design safety response			Before control								
Category	Hazard (factor/event)	Consequence Description	Likelihood	Consequence	Uncontrolled Risk Rating	Control Measure	Control type	Likelihood	Consequence	Risk Rating
DEMOLITION (prior to construction)											
General	Working at heights	Fall leading to serious injury and/or fatality	Possible	Extreme	H	Work in accordance with Safe Work Australia Codes of Practice: Preventing Falls in Housing Construction, Managing the Risk of Falls in the Workplace	Administration	Rare	Extreme	M
	Plant & equipment	Serious injury and/or fatality to workers, public	Possible	Extreme	H	Work in accordance with Safe Work Australia Code of Practice: Managing Risks of Plant in the Workplace	Engineering	Rare	Extreme	M
	Contamination / Hazardous substances	Serious injury and/or fatality to workers, public	Unlikely	Extreme	H	Undertake contamination investigation/audit. Work in accordance with Safe Work Australia Code of Practice: Demolition Work	Isolation	Rare	Extreme	M
	Erosion	Uncontrolled erosion pollutes stormwater systems and/or watercourses downstream	Likely	Minor	M	Install erosion protection and follow Stormwater Management Plan (SWMP)	Engineering	Rare	Minor	L
Existing Services	Stormwater services	Damage to existing service	Possible	Minor	L	Dial before you dig (1100) & locate existing services on site prior to commencing work. Work in accordance with local authority guidelines & Safe Work Australia Code of Practice: Demolition Work	Isolation	Rare	Minor	L
	Sewer services	Damage to existing service	Possible	Minor	L	Dial before you dig (1100) & locate existing services on site prior to commencing work. Work in accordance with local authority guidelines & Safe Work Australia Code of Practice: Demolition Work	Isolation	Rare	Minor	L
	Water supply	Damage to existing service and injury to worker and/or undermining of adjacent structure	Possible	Extreme	H	Dial before you dig (1100) & locate existing services on site prior to commencing work. Work in accordance with local authority guidelines & Safe Work Australia Code of Practice: Demolition Work	Isolation	Extremely Rare	Extreme	L
	Electrical services	Electrocution and serious injury/fatality	Possible	Extreme	H	Dial before you dig (1100) & locate existing services on site prior to commencing work. Work in accordance with local authority guidelines & Safe Work Australia Code of Practice: Demolition Work	Isolation	Extremely Rare	Extreme	L
CONSTRUCTION											
General	Working at heights	Fall leading to serious injury and/or fatality	Possible	Extreme	H	Work in accordance with Safe Work Australia Codes of Practice: Preventing Falls in Housing Construction, Managing the Risk of Falls in the Workplace	Administration	Rare	Extreme	M
	Plant & equipment	Serious injury and/or fatality to workers, public	Possible	Extreme	H	Work in accordance with Safe Work Australia Code of Practice: Managing Risks of Plant in the Workplace	Engineering	Rare	Extreme	M
	Contamination/hazardous substances	Serious injury and/or fatality to workers, public	Unlikely	Extreme	H	Undertake contamination investigation/audit. Work in accordance with Safe Work Australia Code of Practice: Demolition Work	Isolation	Rare	Extreme	M
	Construction loading	Construction loads (due to traffic, back propping etc.) on structures exceed design load allowances, collapse, serious injury and/or fatality	Unlikely	Extreme	H	Limit construction loads to the documented design loads. Engage a Temporary Works Engineer to provide specific advice where higher construction loads are required.	Administration	Rare	Extreme	M
	Manual handling of heavy materials & equipment	Major injury	Possible	Major	H	Make sure to use proper lifting techniques, Use appropriate lifting equipment and adhere to recognised safe work procedures.	Administration	Rare	Major	L
	Use of vibrating equipment (rock breaker, vibrating roller etc.) adjacent to existing buildings/infrastructure	Damage to neighbouring property, possible minor injury	Possible	Major	H	Dilapidation survey prior to work starting, use appropriate sized plant and monitor neighbouring property	Administration	Rare	Major	L
	Construction in confined spaces	Entrapment, suffocation leading to serious injury and/or fatality	Possible	Extreme	H	Entry to confined spaces by permit only and by trained personnel. Work in accordance with Safe Work Australia Code of Practice: Confined Spaces	Administration	Extremely Rare	Extreme	L
	Construction traffic	Uncontrolled site traffic entering and leaving site causes serious injury/fatality	Unlikely	Extreme	H	Develop and implement site specific traffic management plan and direct traffic on site	Administration	Rare	Extreme	M
	Working in remote or extreme environment	unreliable or infrequent access to essential services and supplies in the event of an	Unlikely	Extreme	H	Develop and implement site specific disaster plan, including communication and transport plans	Administration	Extremely Rare	Extreme	L
Excavation	Extreme weather/natural disaster	high winds, earthquake, bushfire etc. makes site unsafe. Serious injury/fatality	Unlikely	Extreme	H	Prepare site and monitor weather, and secure site and evacuate in a timely manner as required	Administration	Extremely Rare	Extreme	L
	Deep excavations (>1.5m deep)	Collapse of excavation leading to serious injury and/or fatality	Possible	Extreme	H	Work in accordance with Safe Work Australia Code of Practice: Excavation Work. Engage a Temporary Works Engineer to provide specific shoring advice.	Engineering	Extremely Rare	Extreme	L
	Shallow excavations (<1.5m deep)	Collapse of excavation, serious injury	Possible	Moderate	M	Work in accordance with Safe Work Australia Code of Practice: Excavation Work.	Administration	Extremely Rare	Moderate	L
	Steep slopes	Collapse of excavation leading to serious injury and/or fatality	Possible	Extreme	H	Work in accordance with Safe Work Australia Code of Practice: Excavation Work. Engage Geotechnical Engineer &/or Temporary Works Engineer to provide specific advice	Administration	Extremely Rare	Extreme	L
In-ground concrete	High level spread footings	Fall, injury	Possible	Moderate	M	Work in accordance with Safe Work Australia Code of Practice: Excavation Work. Provide reinforcement caps to all starter bars	Administration	Rare	Moderate	L
	Bored, cast insitu piles/piers	Fall leading to serious injury and/or fatality	Possible	Extreme	H	Work in accordance with Safe Work Australia Code of Practice: Excavation Work. Pour concrete as soon as practical after excavation	Administration	Extremely Rare	Extreme	L
	Lift overrun shafts	Fall leading to serious injury and/or fatality	Possible	Major	H	Work in accordance with Safe Work Australia Code of Practice: Excavation Work. Provide reinforcement caps to all starter bars or other potential impalement hazards.	Administration	Extremely Rare	Major	L
Retaining walls	Temporary support until slabs are poured	Collapse leading to serious injury and/or fatality	Almost Certain	Extreme	E	Do not backfill wall prior to completion of supporting structure and adequate curing time. Engage Temporary Works Engineer to provide specific advice if early backfilling required.	Engineering	Extremely Rare	Extreme	L
	Temporary support whilst backfilling	Collapse leading to serious injury and/or fatality	Possible	Extreme	H	Do not back fill until concrete footing and grout fill to wall have reached 28 day strength. Alternatively engage a Temporary Works Engineer to provide specific advice.	Engineering	Extremely Rare	Extreme	L
	Installation of tanking, drainage etc. behind wall	Collapse leading to serious injury and/or fatality	Possible	Extreme	H	Install without accessing rear of wall. Alternatively engage a Temporary Works Engineer to provide specific advice	Administration	Extremely Rare	Extreme	L
Precast concrete	Transport, handling and erection of precast elements	Collapse leading to serious injury and/or fatality	Likely	Catastrophic	E	Work in accordance with the National Code of Practice for Precast, Tilt-up and Concrete Elements in Buildings. Engage a Temporary Works Engineer to provide specific	Engineering	Extremely Rare	Catastrophic	M
	Temporary support of precast elements	Collapse leading to serious injury and/or fatality	Likely	Catastrophic	E	Work in accordance with the National Code of Practice for Precast, Tilt-up and Concrete Elements in Buildings. Engage a Temporary Works Engineer to provide specific advice	Administration	Extremely Rare	Catastrophic	M
Suspended concrete	Formwork support	Collapse leading to serious injury and/or fatality	Possible	Catastrophic	E	Engage a Temporary Works Engineer to provide specific advice	Engineering	Extremely Rare	Catastrophic	M
	Back propping	Collapse leading to serious injury and/or fatality	Unlikely	Catastrophic	E	Engage a Temporary Works Engineer to provide specific advice	Engineering	Extremely Rare	Catastrophic	M
	Live edges	Fall leading to serious injury and/or fatality	Possible	Extreme	H	Protect live edges and/or install temporary floors. Work in accordance with Safe Work Australia Codes of Practice: Preventing Falls in Housing Construction, Managing the Risk of Falls in the Workplace	Isolation	Extremely Rare	Extreme	L
	Openings in formwork	Fall leading to serious injury and/or fatality	Likely	Extreme	E	Protect live edges and/or install temporary floors Work in accordance with Safe Work Australia Codes of Practice: Preventing Falls in Housing Construction, Managing the Risk of Falls in the Workplace	Isolation	Extremely Rare	Extreme	L
Framing	Transport, handling and erection of steel/timber framing	Collapse of structure or fall from height, leading to serious injury and/or fatality	Possible	Extreme	H	Engage a Temporary Works Engineer to provide specific advice. Work in accordance with Safe Work Australia Codes of Practice: Preventing Falls in Housing Construction, Managing the Risk of Falls in the Workplace	Engineering	Extremely Rare	Extreme	L
OPERATION (in service)											
Performance	Services/infrastructure is fit for purpose and safe to use	Loss of amenity	Unlikely	Major	M	Services/infrastructure designed by a competent person in accordance with relevant Australian Standards, NCC and recognised engineering principles	Engineering	Extremely Rare	Extreme	L
	Structure is fit for purpose and safe to use	Collapse leading to serious injury and/or fatality	Unlikely	Catastrophic	E	Structure designed by a competent person in accordance with relevant Australian Standards, NCC and recognised engineering principles	Engineering	Extremely Rare	Catastrophic	M
Modifications	Alterations and additions affecting structure	Collapse leading to serious injury and/or fatality	Possible	Extreme	H	Engage a Structural Engineer to provide specific advice. All work to be undertaken in accordance with relevant building regulations.	Engineering	Extremely Rare	Extreme	L
	Alterations affecting civil or hydraulic services	Impaired functionality, reduced safety leading to serious injury and/or fatality	Possible	Extreme	H	Engage a specialist (civil, hydraulic, traffic engineer) to provide specific advice. All work to be undertaken in accordance with relevant building regulations.	Engineering	Extremely Rare	Extreme	L
Post disaster functions	Natural disaster (earthquake, flood, bushfire etc.)	Building is not operational during or after a natural disaster and cannot deliver essential services	Possible	Catastrophic	E	Design building to relevant Australian Standards, NCC and consult with building operator for specific requirements which exceed these standards.	Engineering	Extremely Rare	Catastrophic	M

REV	DESCRIPTION	DATE
0	BUILDING APPROVAL	24/10/25
1	REVISED FOR BUILDING APPROVAL	12/11/25
2	REVISED FOR BUILDING APPROVAL	01/12/25
3	REVISED FOR BUILDING APPROVAL	19/01/25

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ADDRESS: 10 GARDEN GROVE WEST MOONAH
SHEET: SAFETY IN DESIGN
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25
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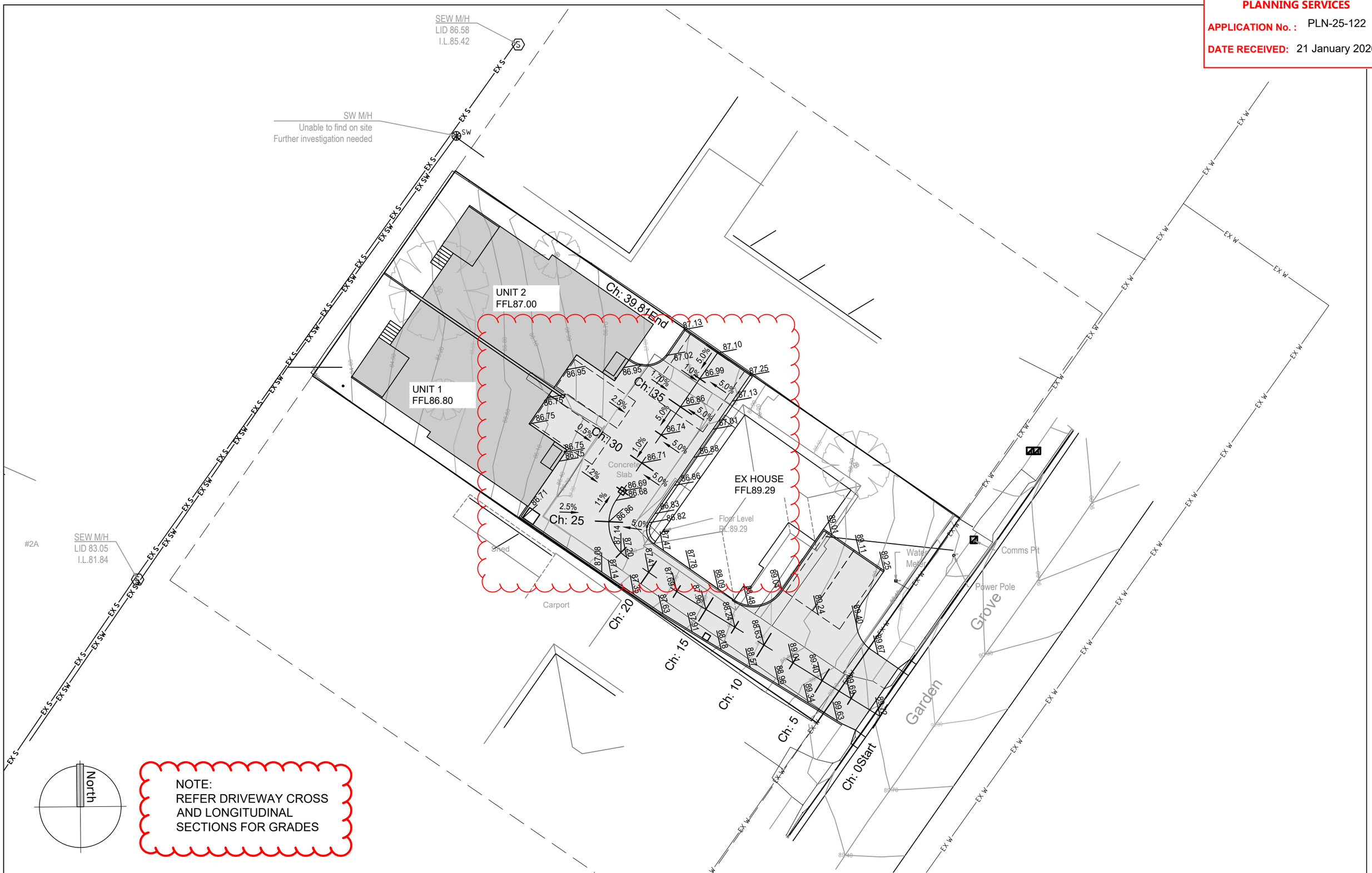
S&E REF: 25366		DRAWING: C004	REVISION: 3



REV	DESCRIPTION	DATE
0	BUILDING APPROVAL	24/10/25
1	REVISED FOR BUILDING APPROVAL	12/11/25
2	REVISED FOR BUILDING APPROVAL	01/12/25
3	REVISED FOR BUILDING APPROVAL	19/01/25

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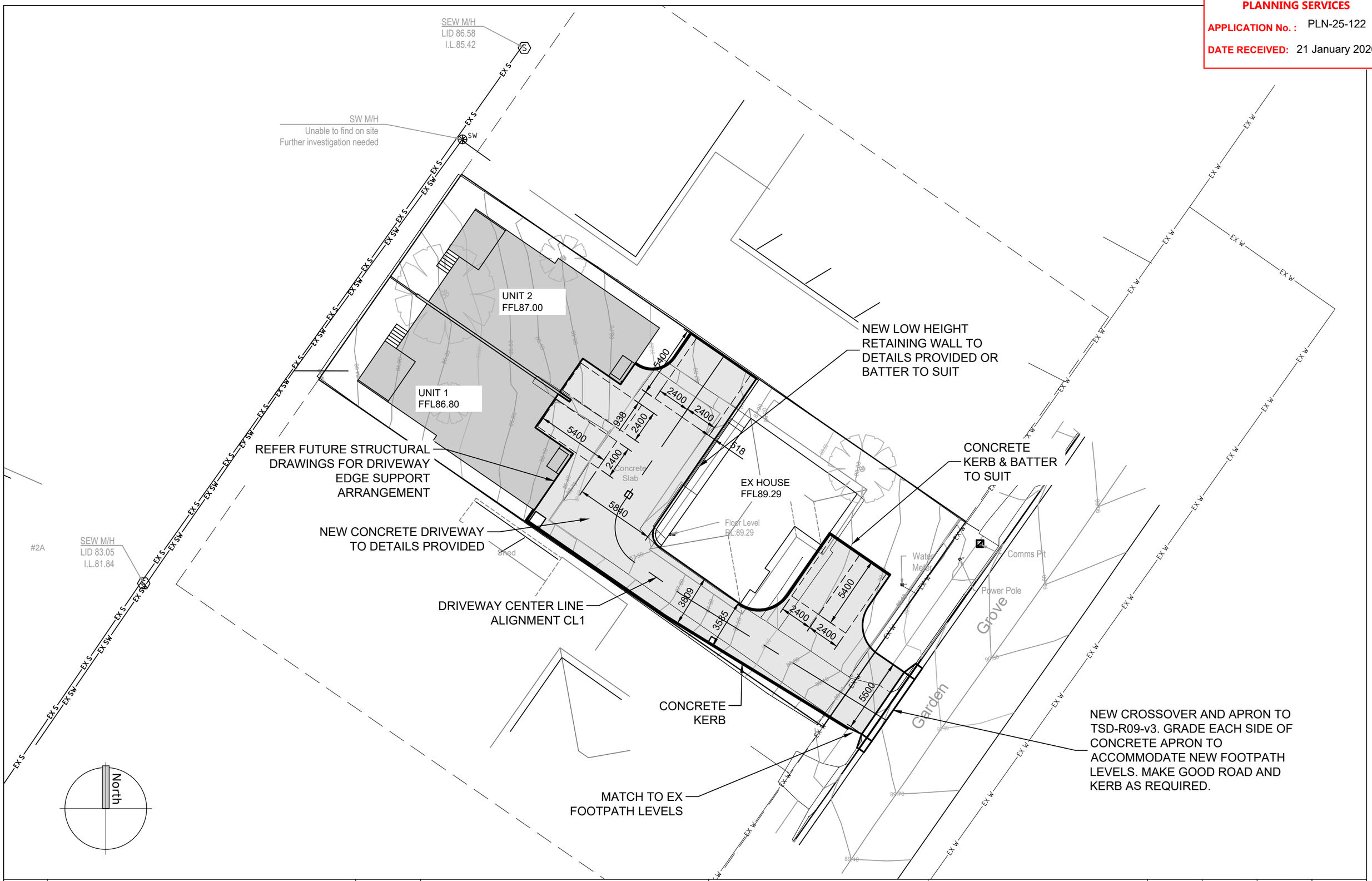
SHEET: LEVELS & GRADES
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN	DESIGNED	VERIFIED	DATE
NE	NE	-	24/10/25

SCALE: 1:250
SIZE: A3
S&E REF: 25366
DRAWING: C101
REVISION: 3



REV	DESCRIPTION	DATE
0	BUILDING APPROVAL	24/10/25
1	REVISED FOR BUILDING APPROVAL	12/11/25
2	REVISED FOR BUILDING APPROVAL	01/12/25
3	REVISED FOR BUILDING APPROVAL	19/01/25

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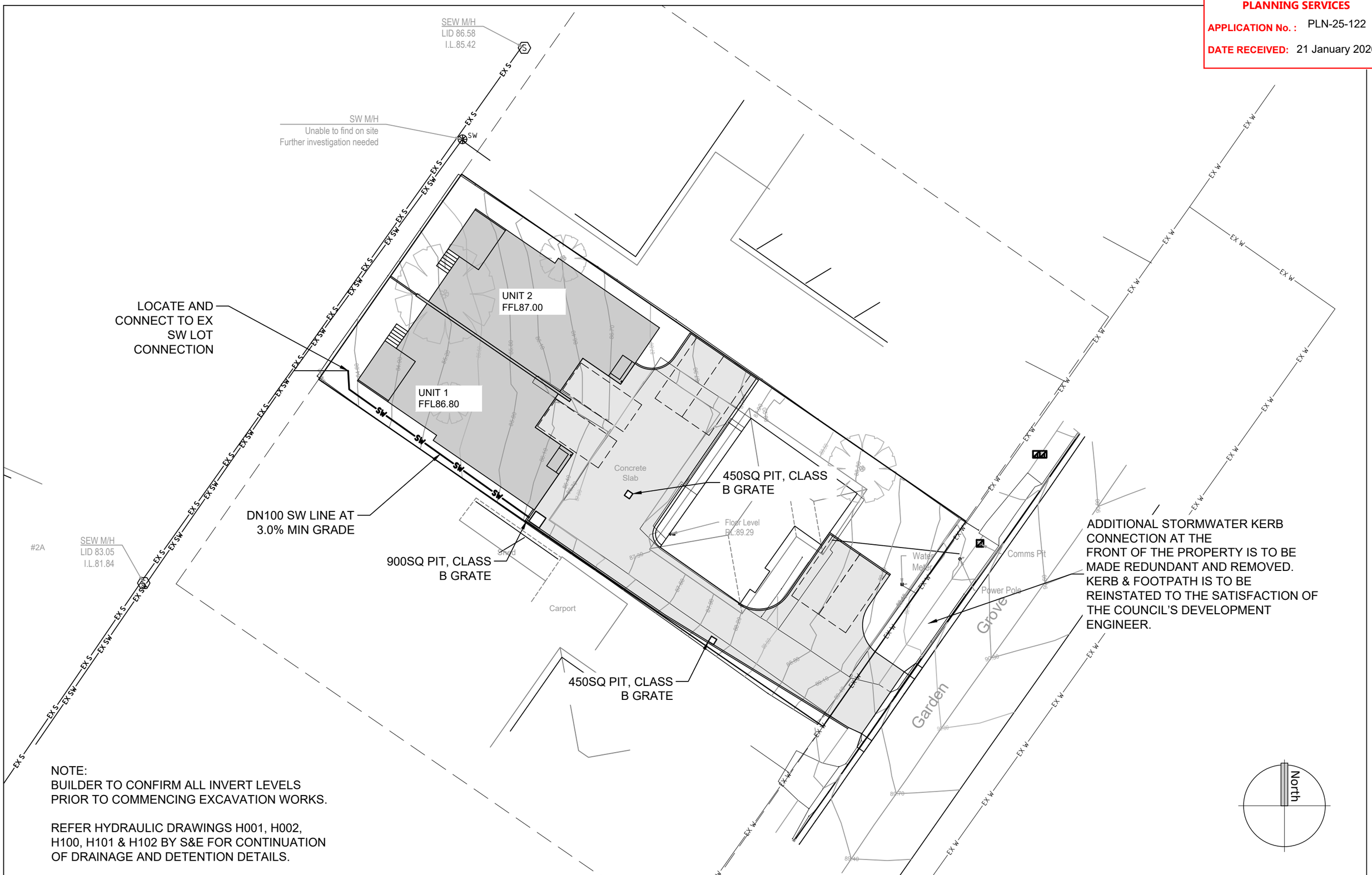
ADDRESS: 10 GARDEN GROVE WEST MOONAH
SHEET: SITEWORKS DETAILS & NOTES
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

SCALE:	SIZE:
1:250	A3

S&E REF:	DRAWING:	REVISION:
25366	C102	3



NOTE:
BUILDER TO CONFIRM ALL INVERT LEVELS PRIOR TO COMMENCING EXCAVATION WORKS.

REFER HYDRAULIC DRAWINGS H001, H002, H100, H101 & H102 BY S&E FOR CONTINUATION OF DRAINAGE AND DETENTION DETAILS.

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SHEET: STORMWATER PLAN
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

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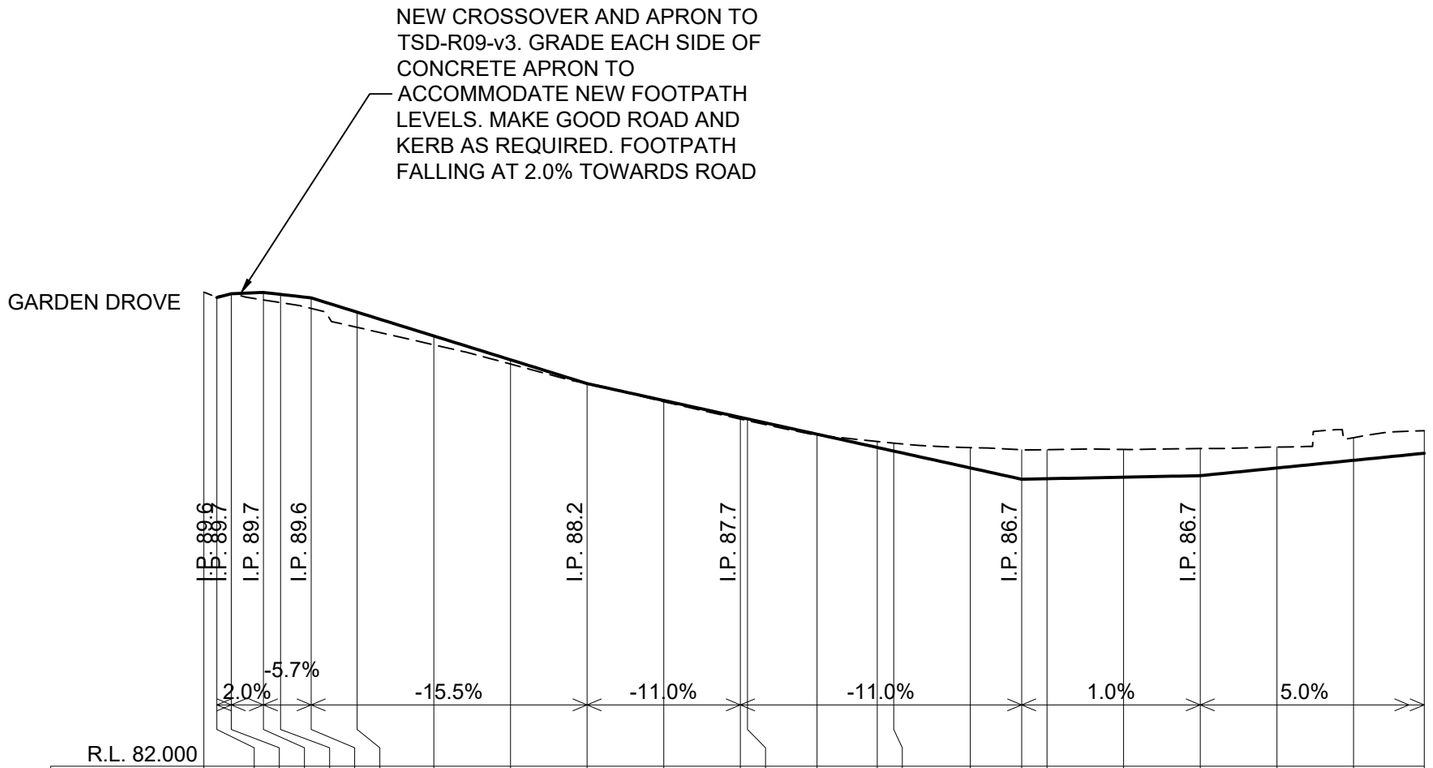
S&E REF:	DRAWING:	REVISION:
25366	C103	3



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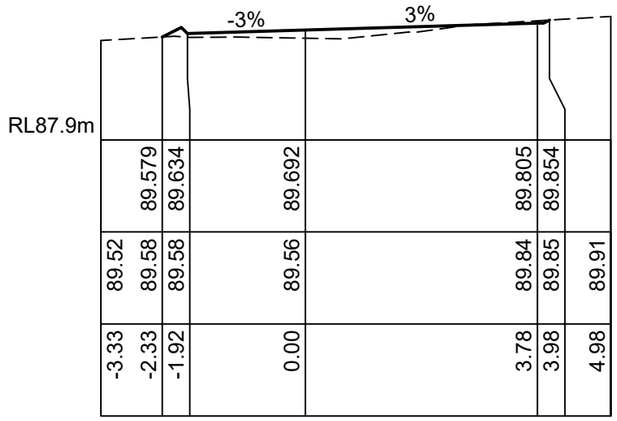

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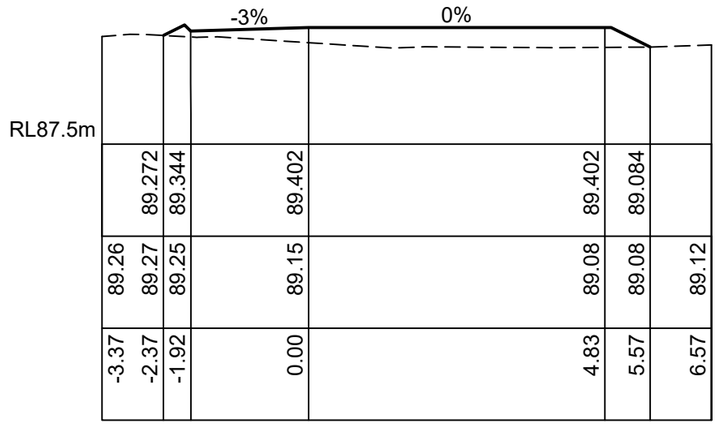

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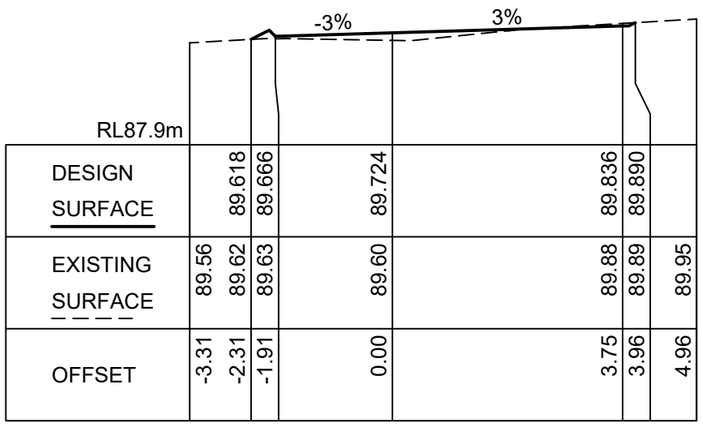

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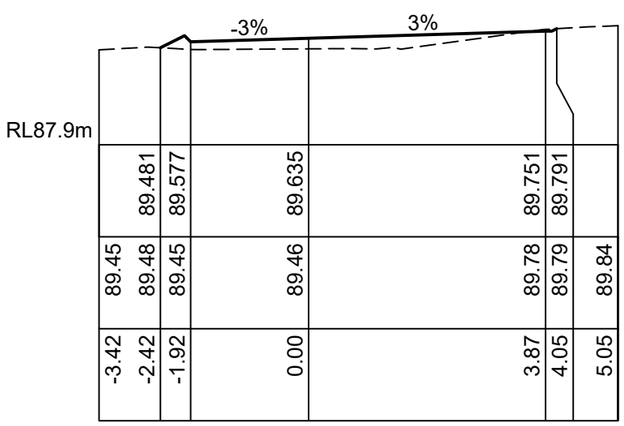

Ch 3.50 m

REV	DESCRIPTION	DATE
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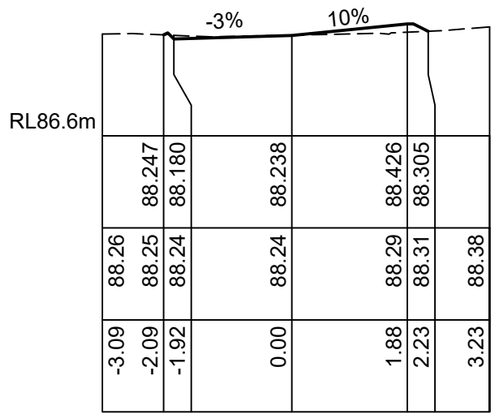
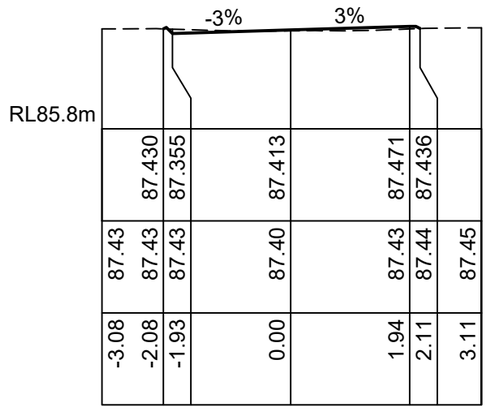
SHEET: CROSS SECTIONS PLAN 1
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

SCALE: 1:100
SIZE: A3
S&E REF: 25366
DRAWING: C105
REVISION: 3



Ch 12.50 m



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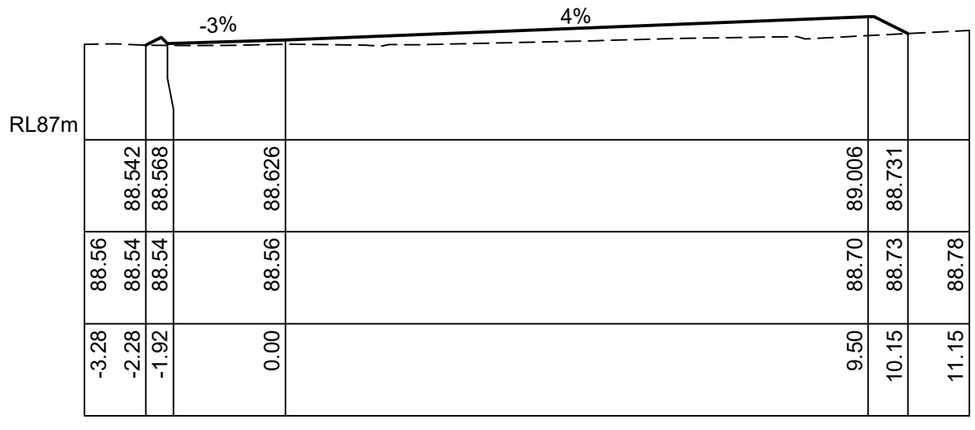
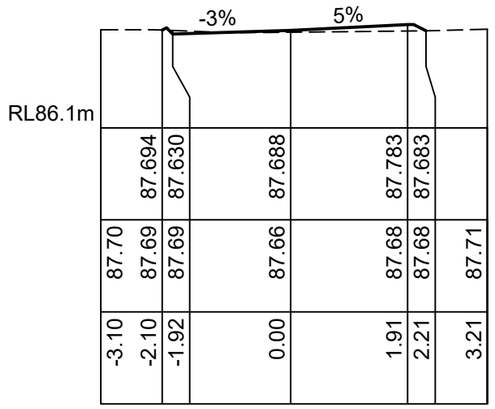
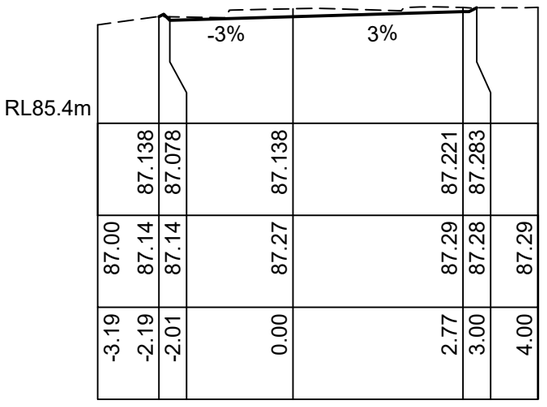


Ch 10.00 m



Ch 17.50 m



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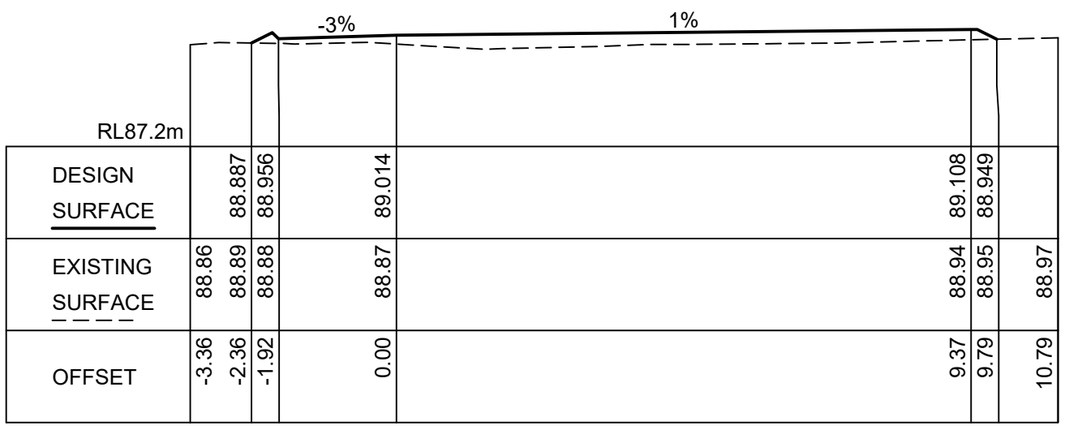

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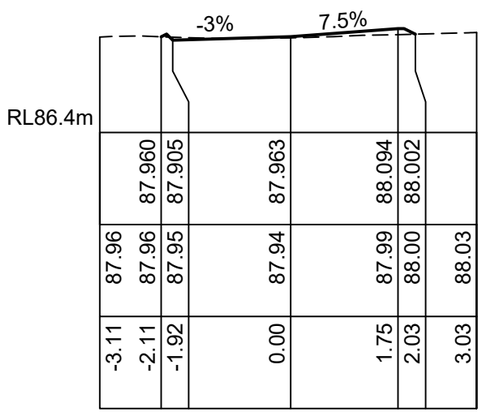

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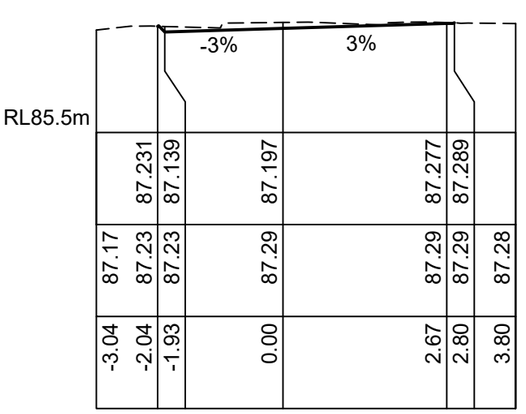

Ch 21.96 m

REV	DESCRIPTION	DATE
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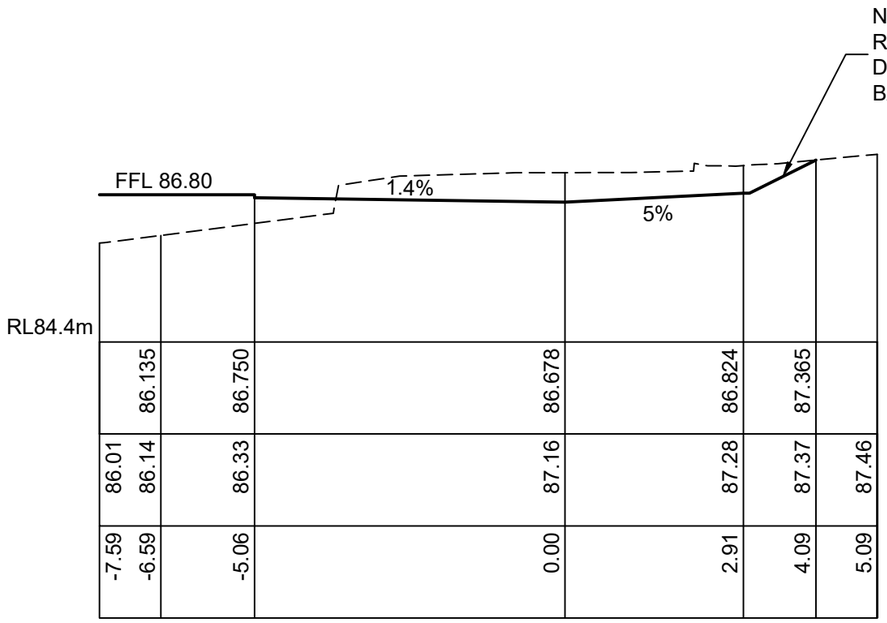
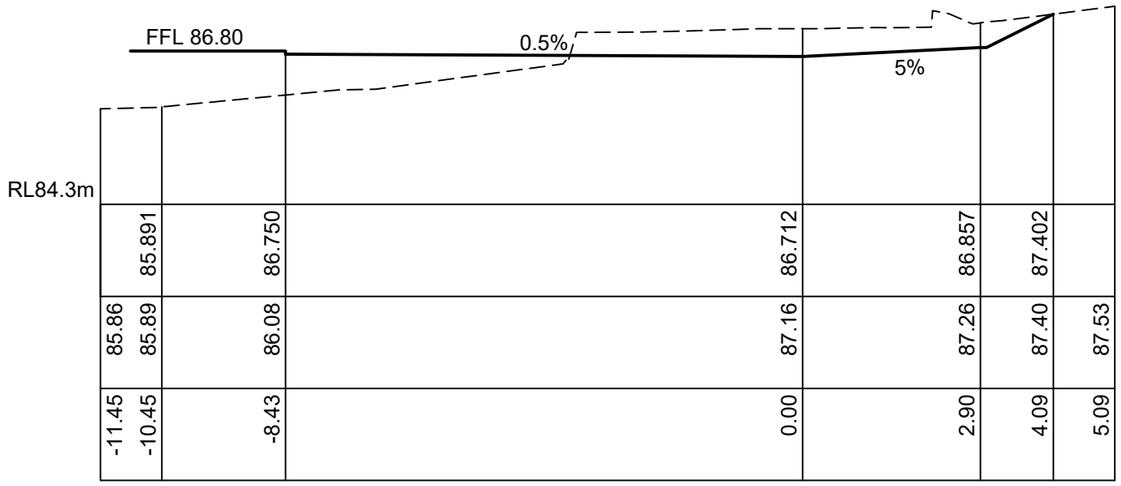
SHEET: CROSS SECTIONS PLAN 2
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

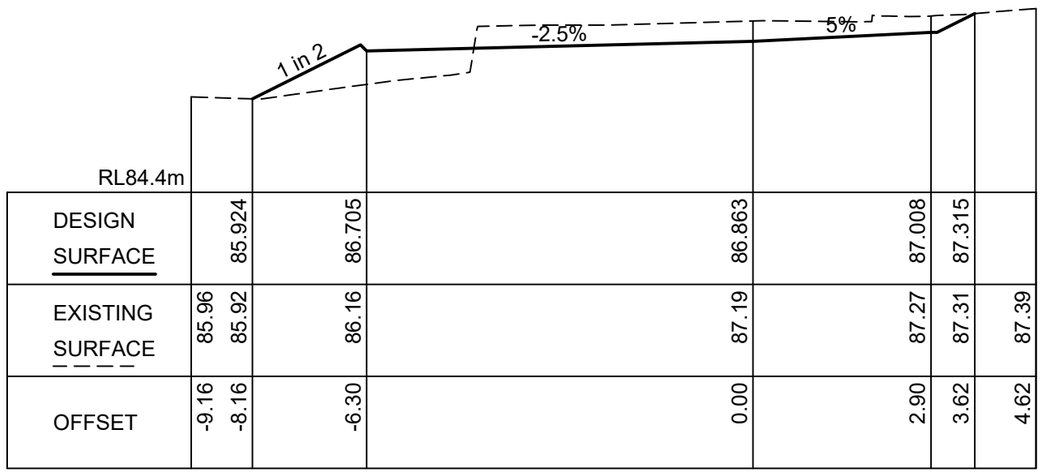
SCALE: 1:100 | SIZE: A3
S&E REF: 25366 | DRAWING: C106 | REVISION: 3



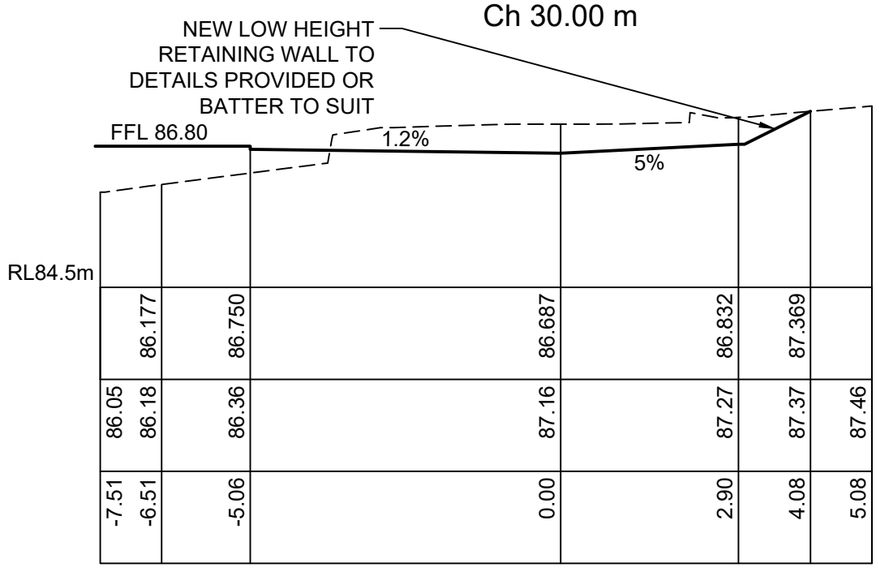
Ch 26.68 m



Ch 30.00 m



Ch 25.00 m



Ch 27.50 m

REV	DESCRIPTION	DATE
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3	REVISED FOR BUILDING APPROVAL	19/01/25

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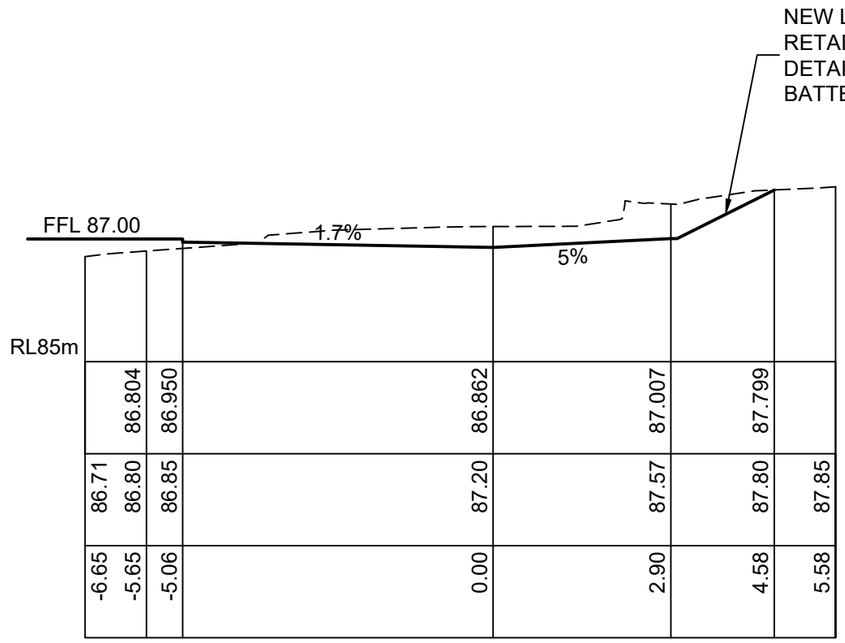
SHEET: CROSS SECTIONS PLAN 3
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

SCALE: 1:100
SIZE: A3
S&E REF: 25366
DRAWING: C107
REVISION: 3



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86.71	86.80	86.85	87.20	87.57	87.80	87.85
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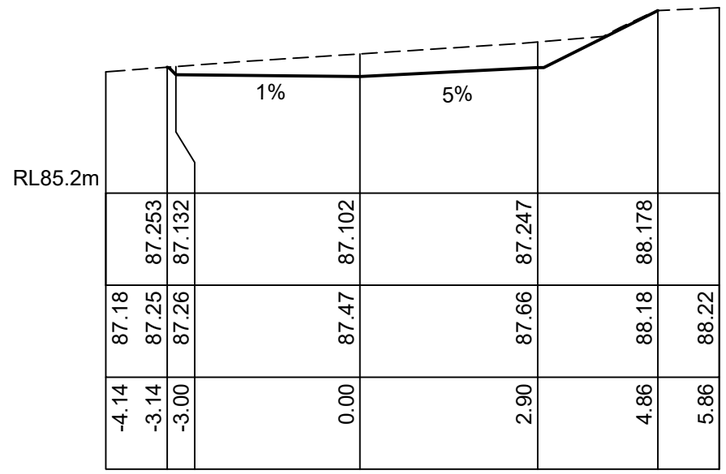
Ch 35.00 m



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87.18	87.25	87.26	87.47	87.66	88.18	88.22
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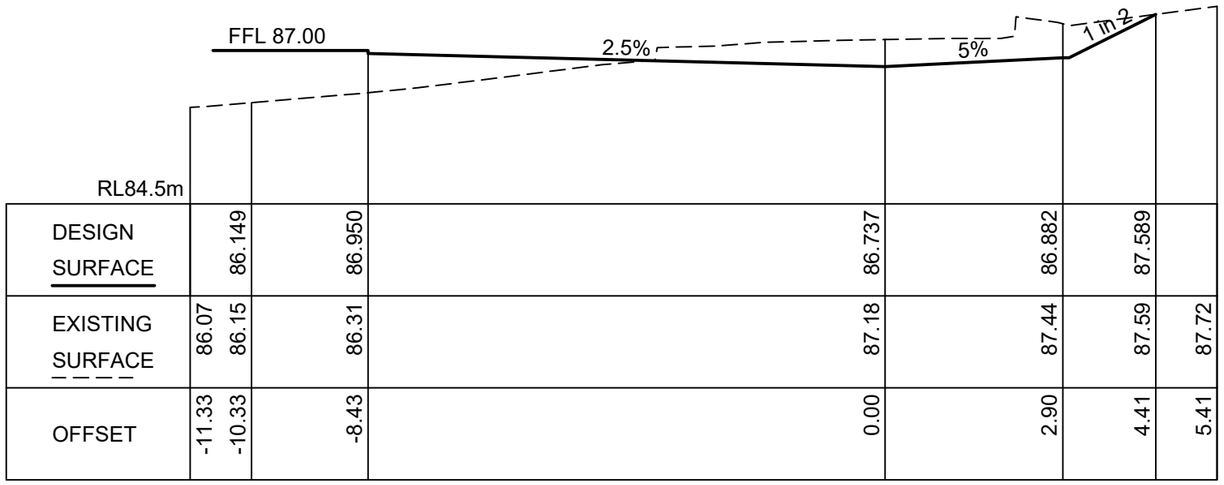
Ch 39.81 m



DESIGN SURFACE	86.149	86.950	86.737	86.882	87.589	
EXISTING SURFACE	86.07	86.15	86.31	87.18	87.44	87.59	87.72
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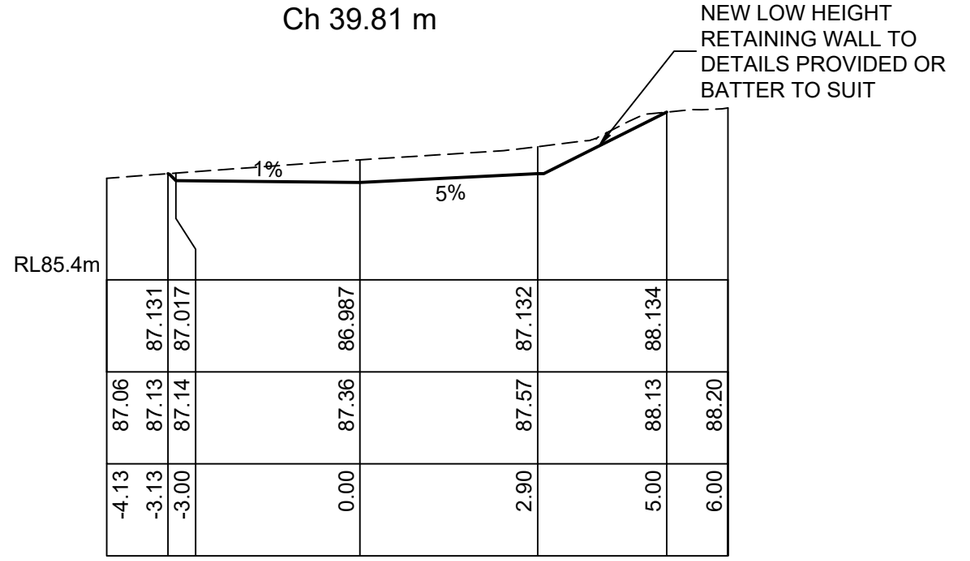
Ch 32.50 m



87.131	87.017	86.987	87.132	88.134	
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Ch 37.50 m

REV	DESCRIPTION	DATE
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3	REVISED FOR BUILDING APPROVAL	19/01/25

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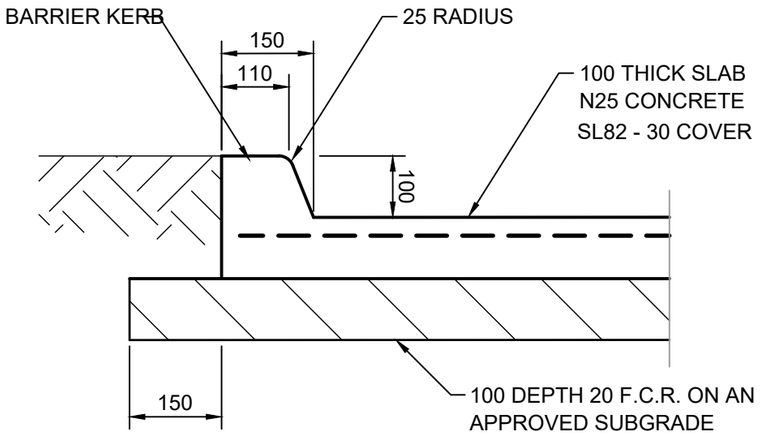
SHEET: CROSS SECTIONS PLAN 4
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

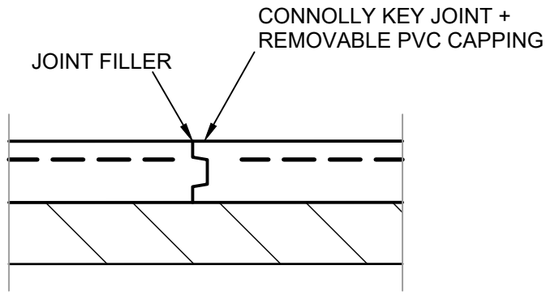
DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

SCALE: 1:100
SIZE: A3
S&E REF: 25366
DRAWING: C108
REVISION: 3



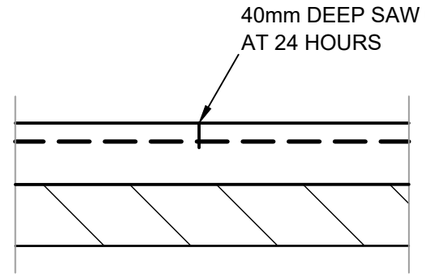
TYPICAL CONCRETE PAVEMENT

NTS



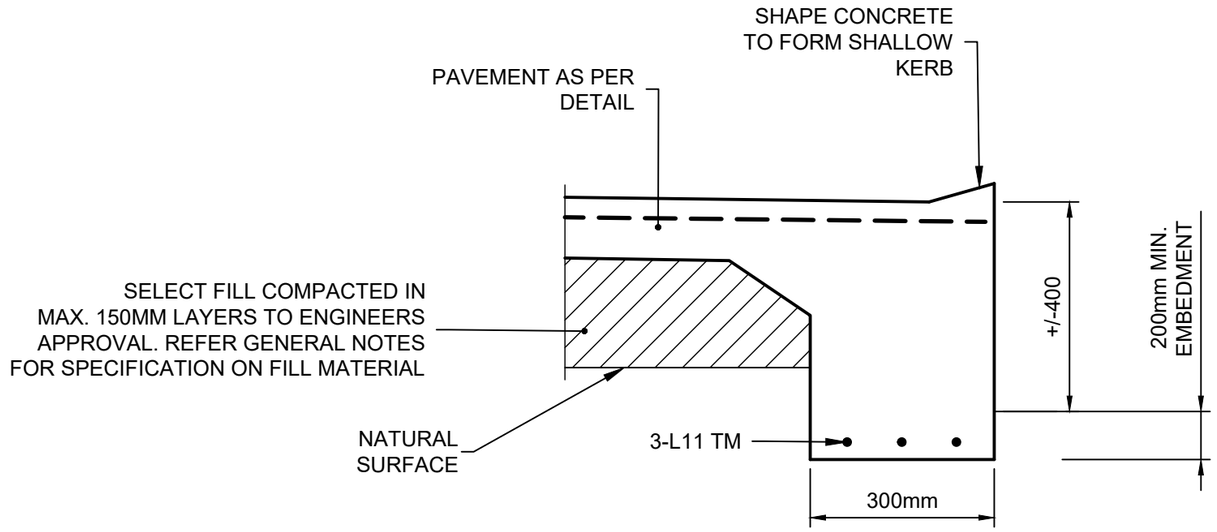
CONTROL JOINT 'c'

NTS
NOTE: 24m CENTRES



SAWN JOINT 's'

NTS
NOTE: 6m CENTRES



TYPICAL CONCRETE PAVEMENT EDGE BEAM

SCALE 1:10

REV	DESCRIPTION	DATE
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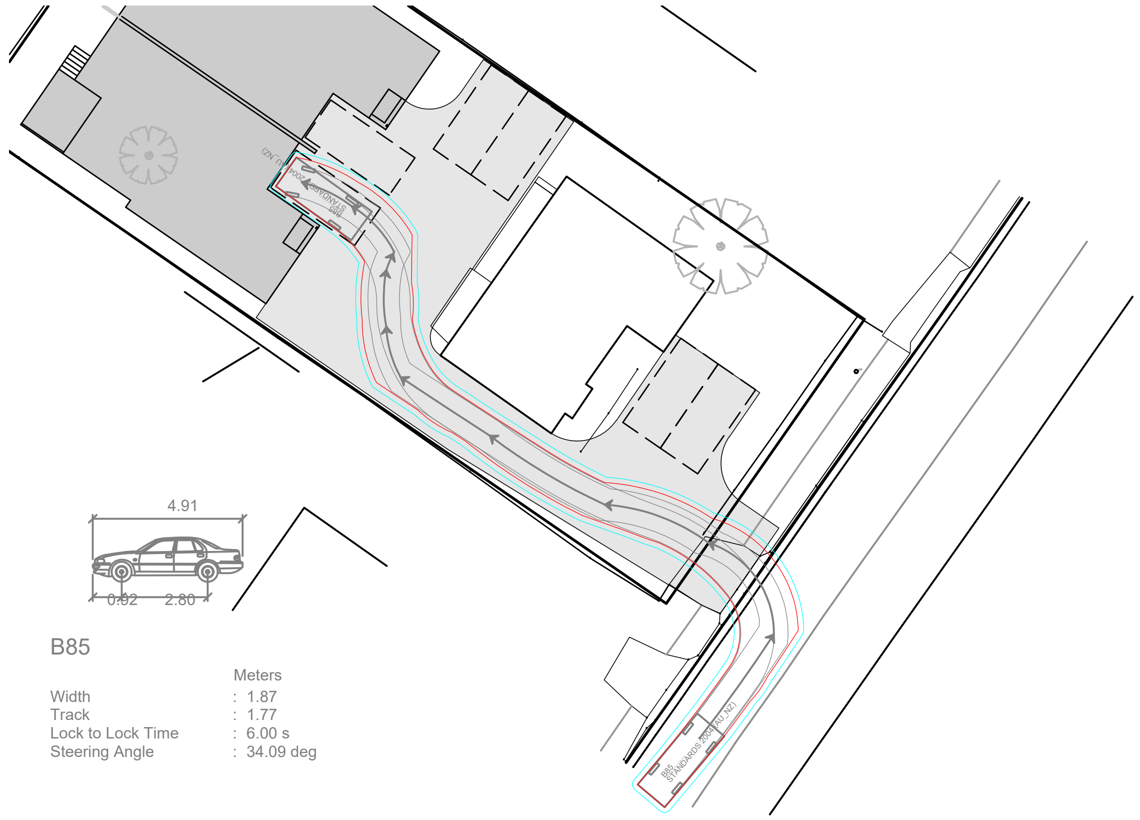
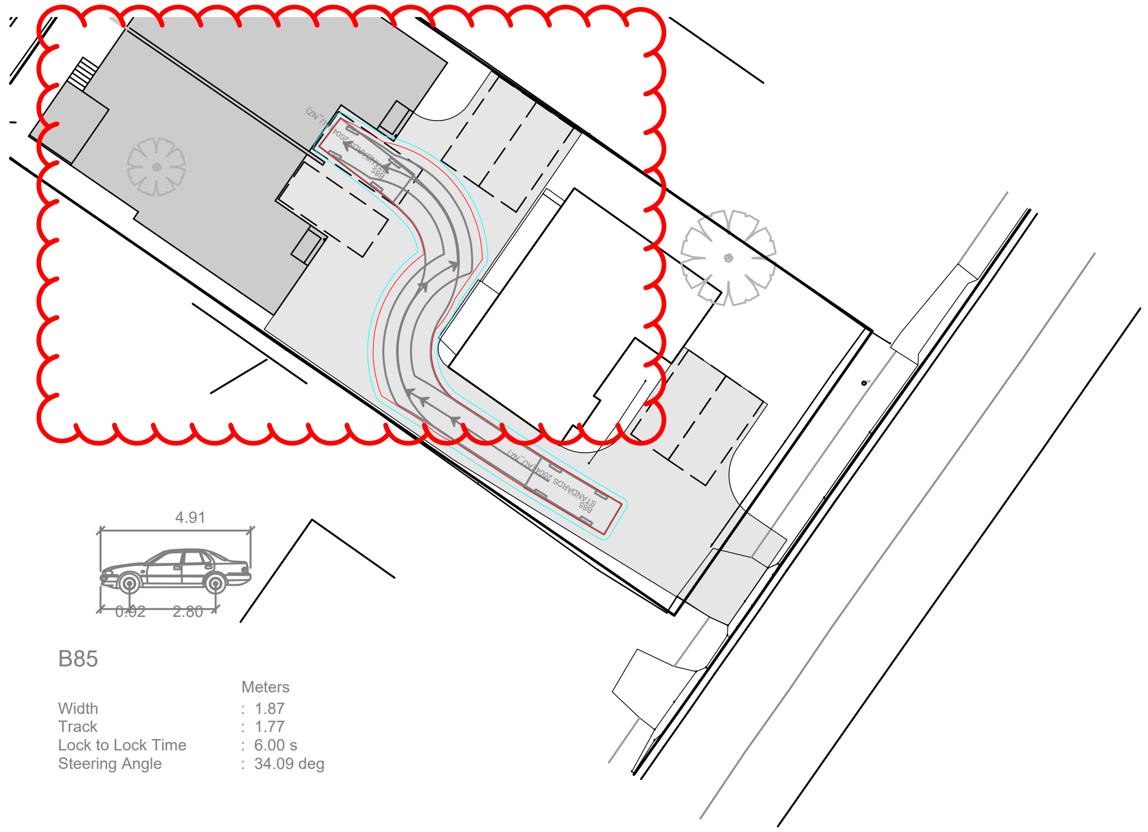
SHEET: DETAILS PLAN 1
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

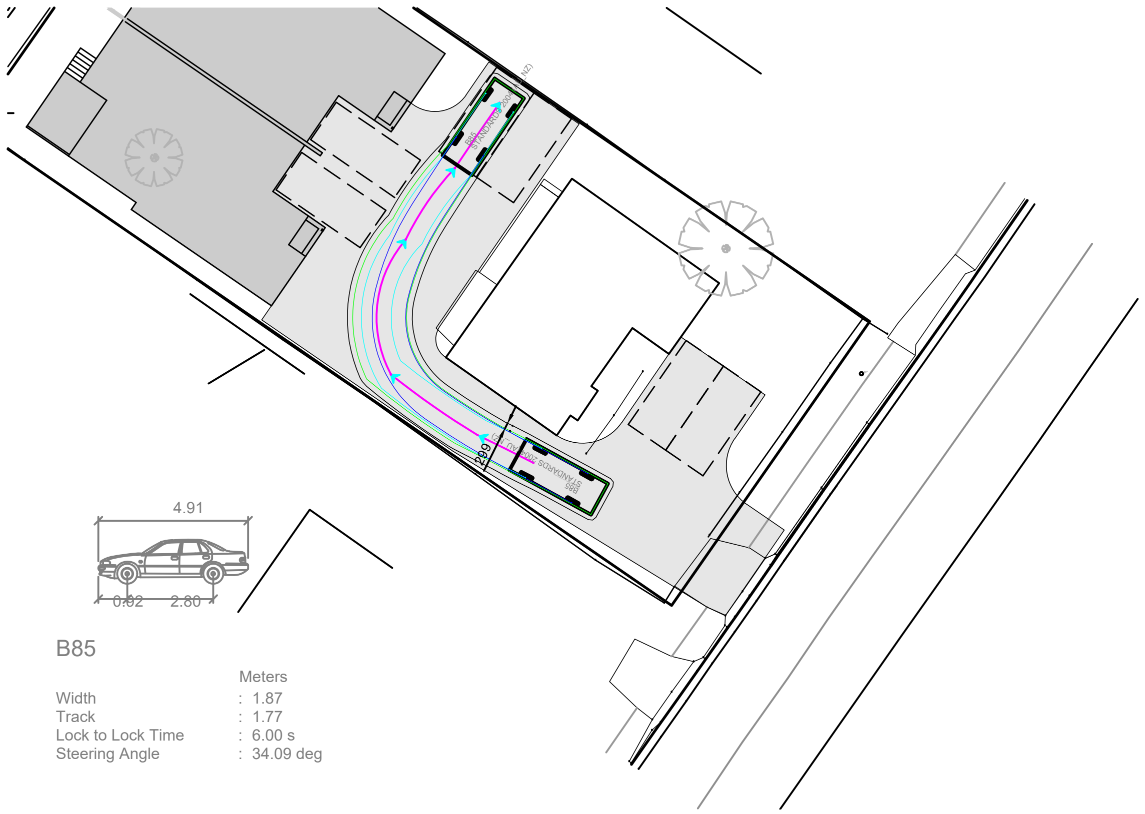
DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

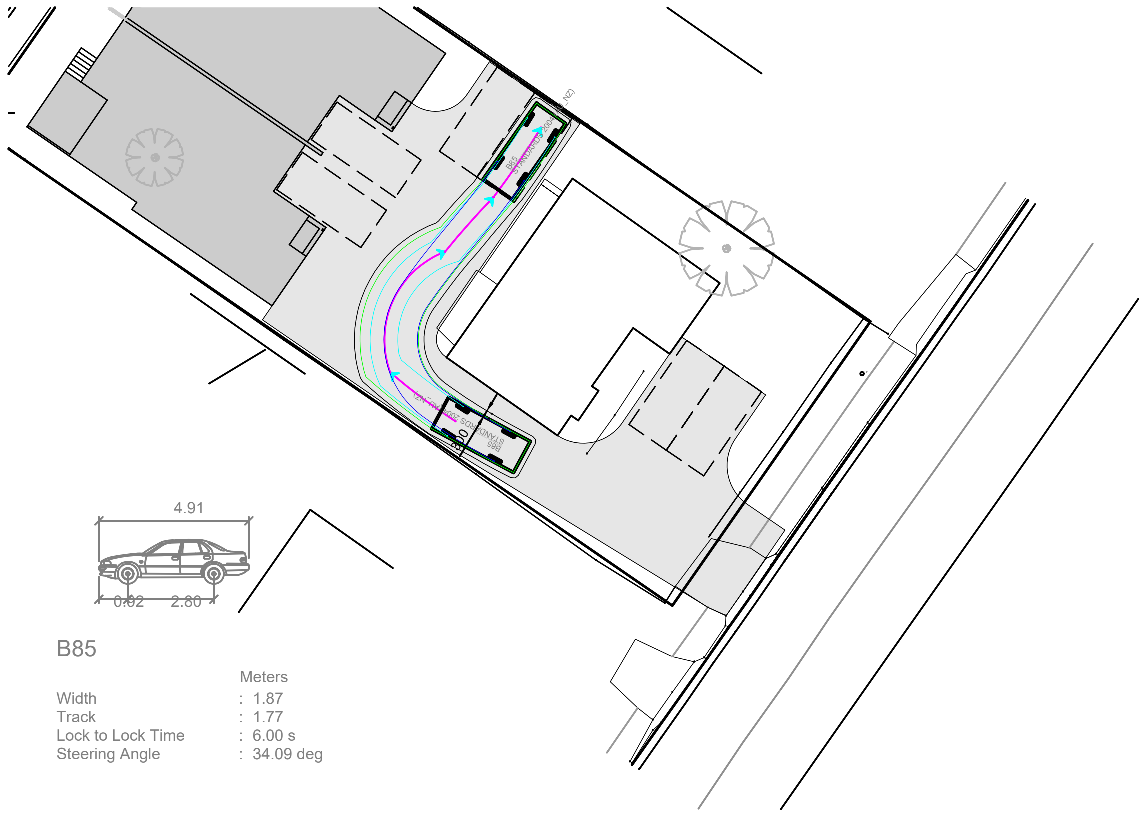
SCALE:	SIZE:
AS SHOWN	A3

S&E REF:	DRAWING:	REVISION:
25366	C109	3









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0	BUILDING APPROVAL	24/10/25
1	REVISED FOR BUILDING APPROVAL	12/11/25
2	REVISED FOR BUILDING APPROVAL	01/12/25
3	REVISED FOR BUILDING APPROVAL	19/01/25

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CLIENT:	LAN & ZHU
ADDRESS:	10 GARDEN GROVE WEST MOONAH
SHEET:	VEHICLE TURNNING PLAN 1
PROJECT NAME:	UNIT DEVELOPMENT
ISSUE:	BUILDING APPROVAL
DRAWN:	NE
DESIGNED:	NE
VERIFIED:	-
DATE:	24/10/25
SCALE:	1:400 @ A3
SIZE:	A3
S&E REF:	25366
DRAWING:	C110
REVISION:	3

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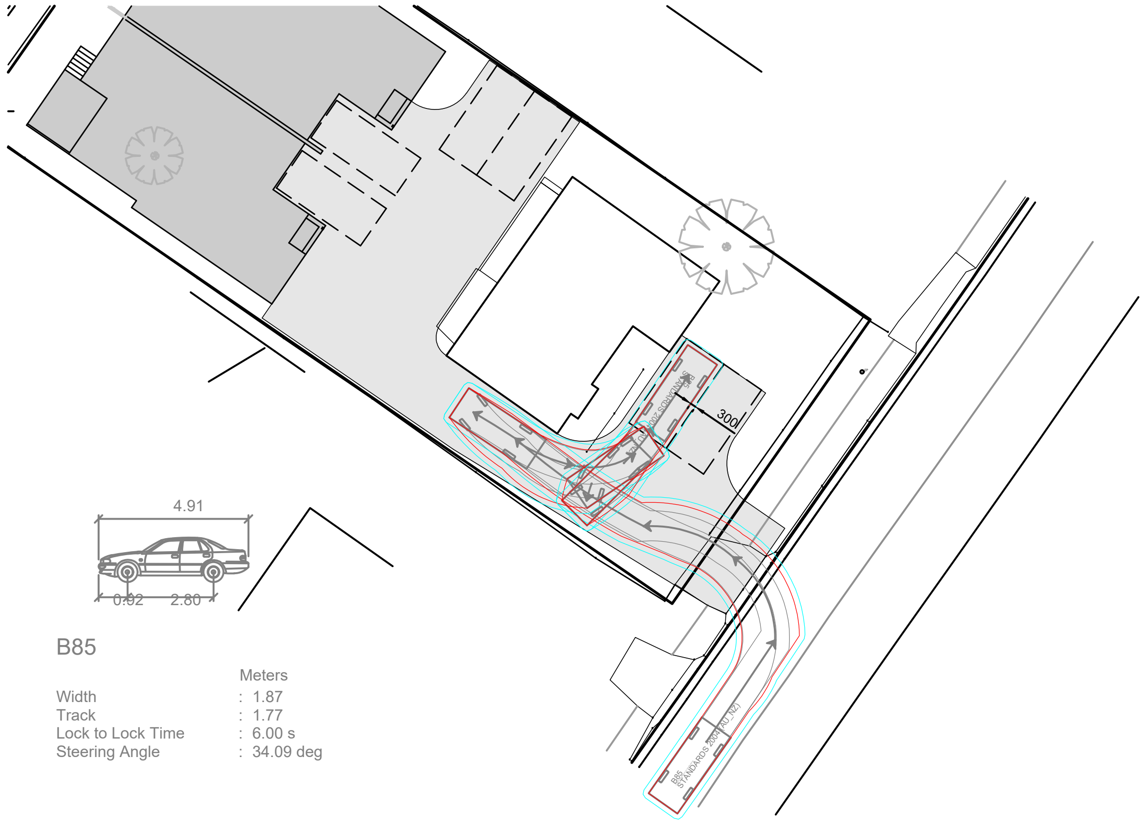
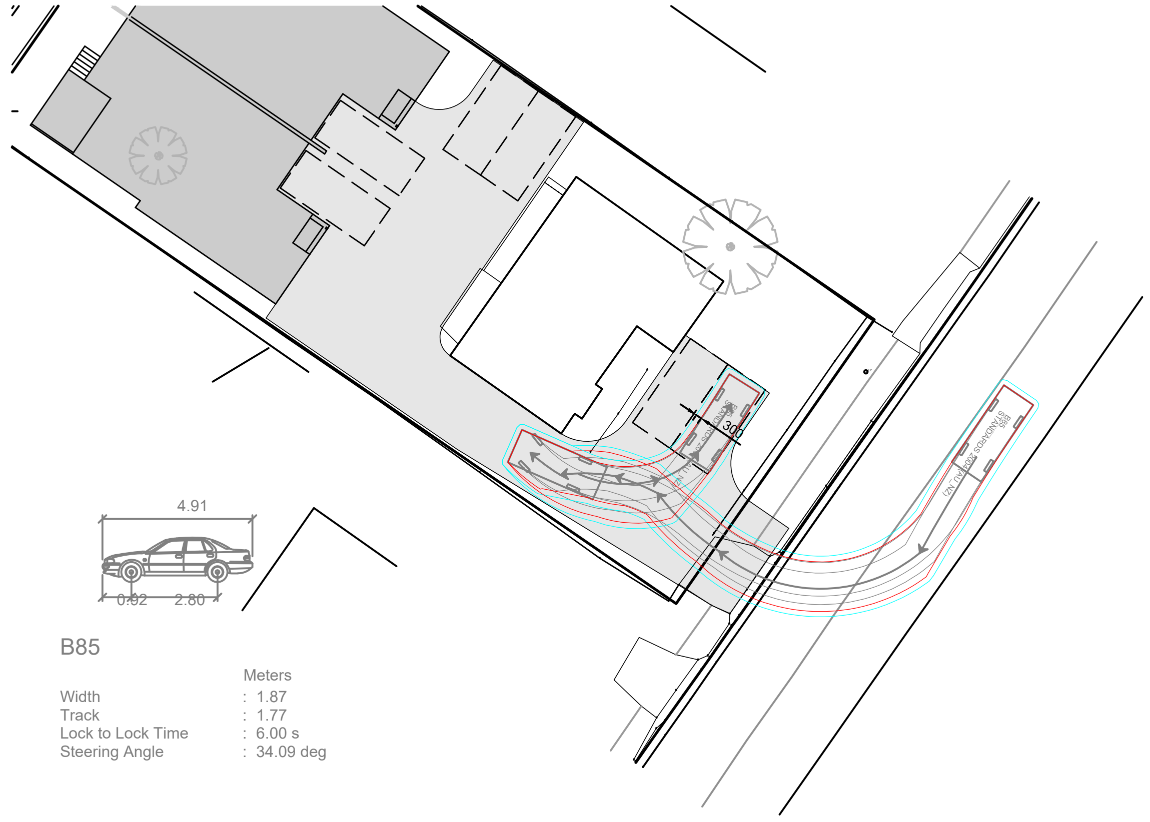
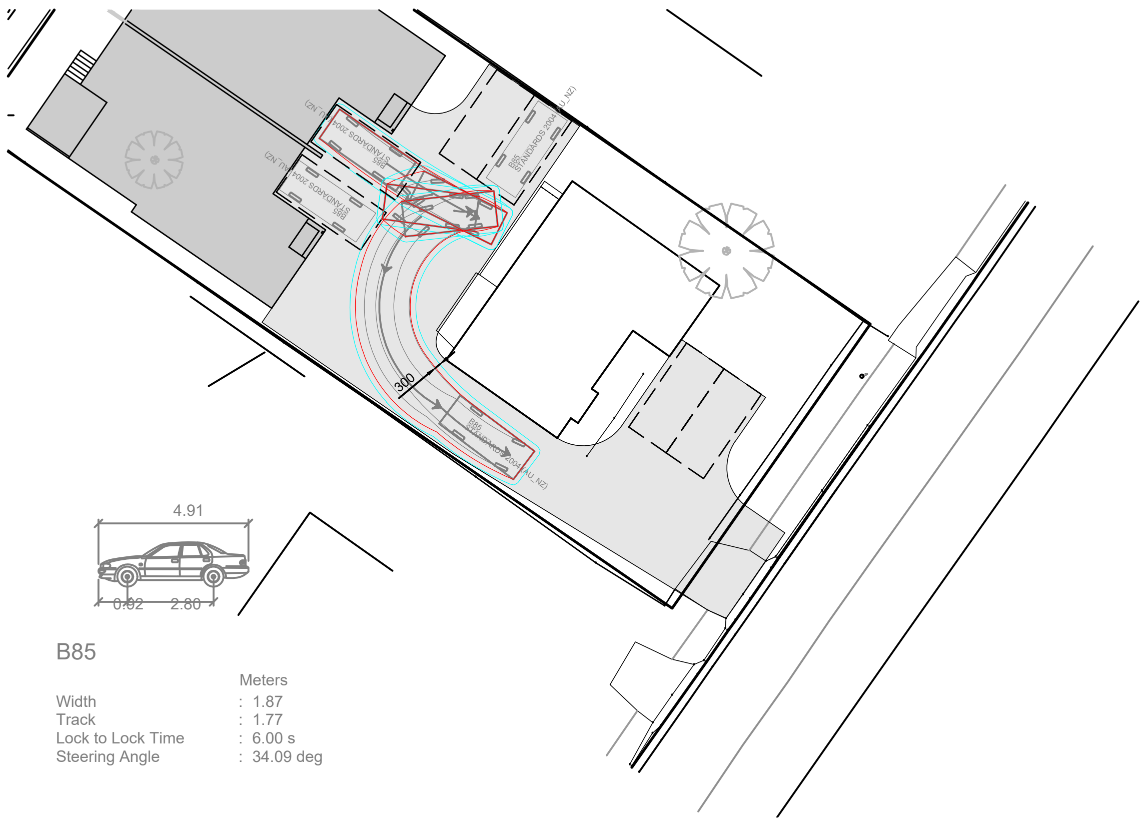
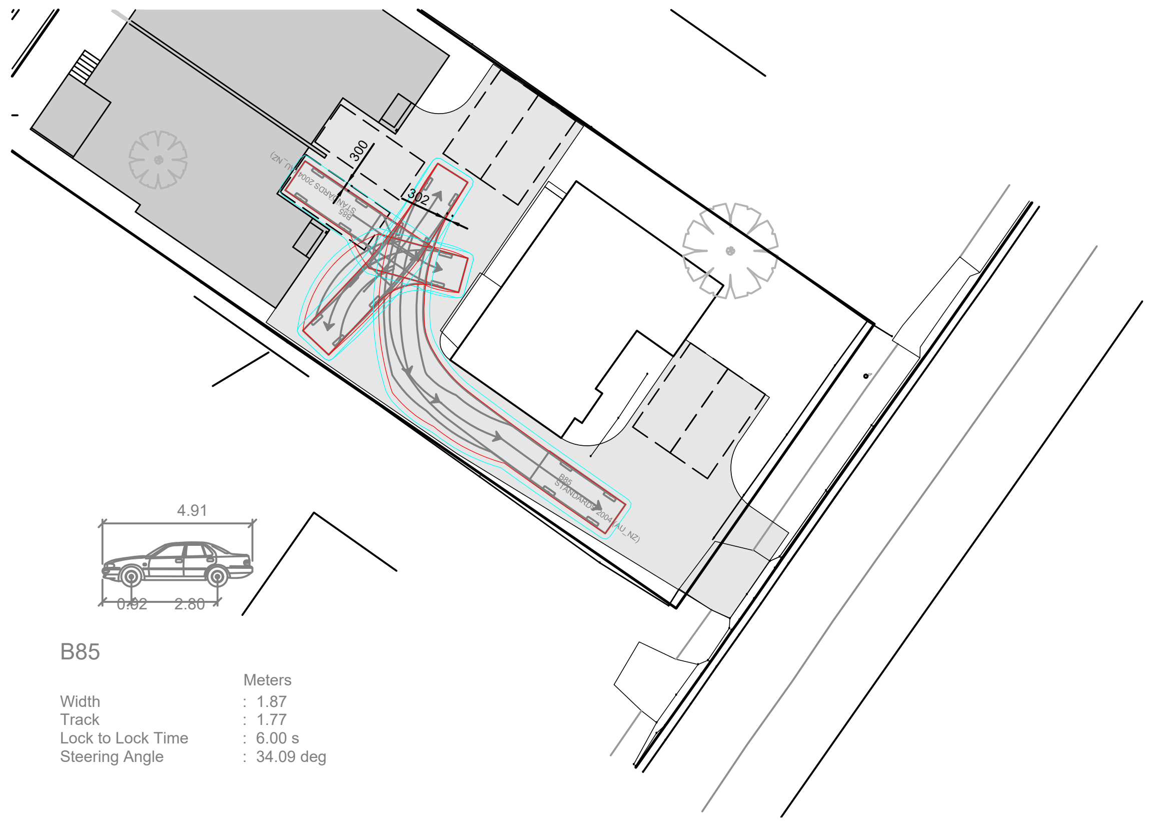
Version: 1, Version Date: 30/01/2026

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No. : PLN-25-122
DATE RECEIVED: 21 January 2026









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3	REVISED FOR BUILDING APPROVAL	19/01/25

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CLIENT:	LAN & ZHU
ADDRESS:	10 GARDEN GROVE WEST MOONAH
SHEET:	VEHICLE TURNNING PLAN 2
PROJECT NAME:	UNIT DEVELOPMENT
ISSUE:	BUILDING APPROVAL
DRAWN:	NE
DESIGNED:	NE
VERIFIED:	-
DATE:	24/10/25
SCALE:	1:400 @ A3
SIZE:	A3
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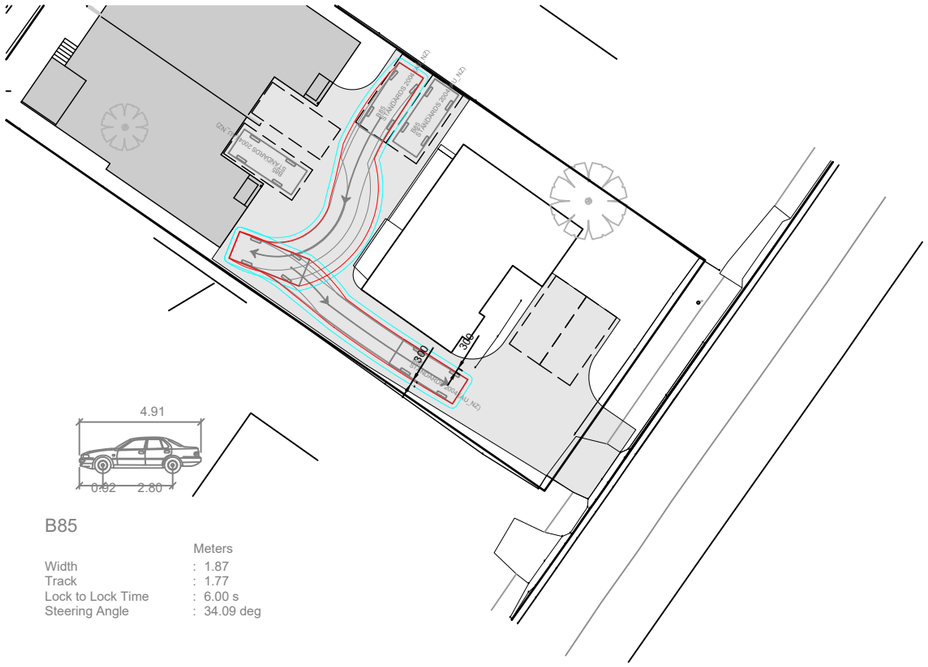
REVISION:	3



B85

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Track	: 1.77
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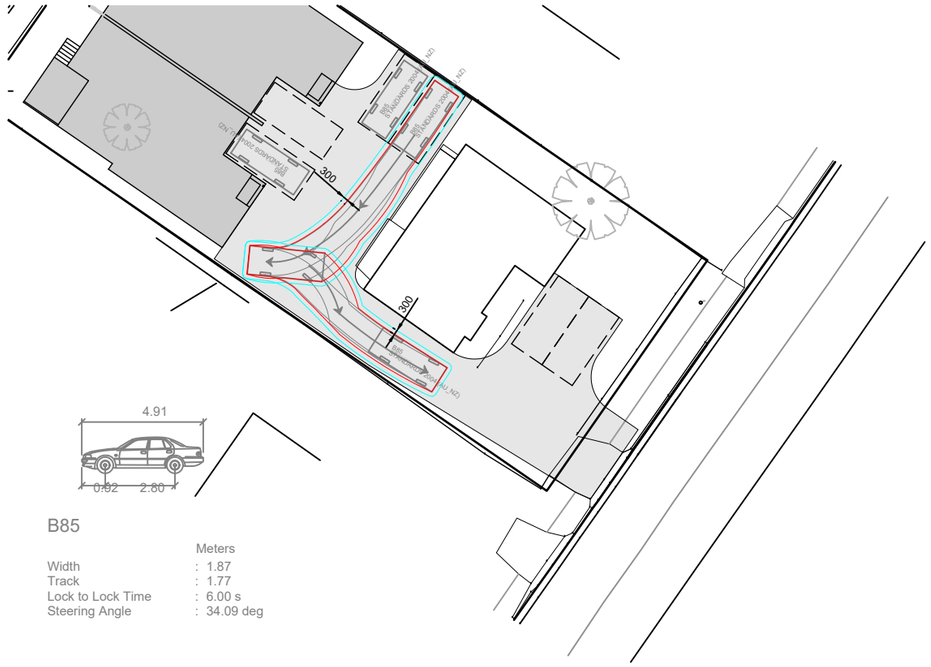
Steering Angle	: 34.09 deg



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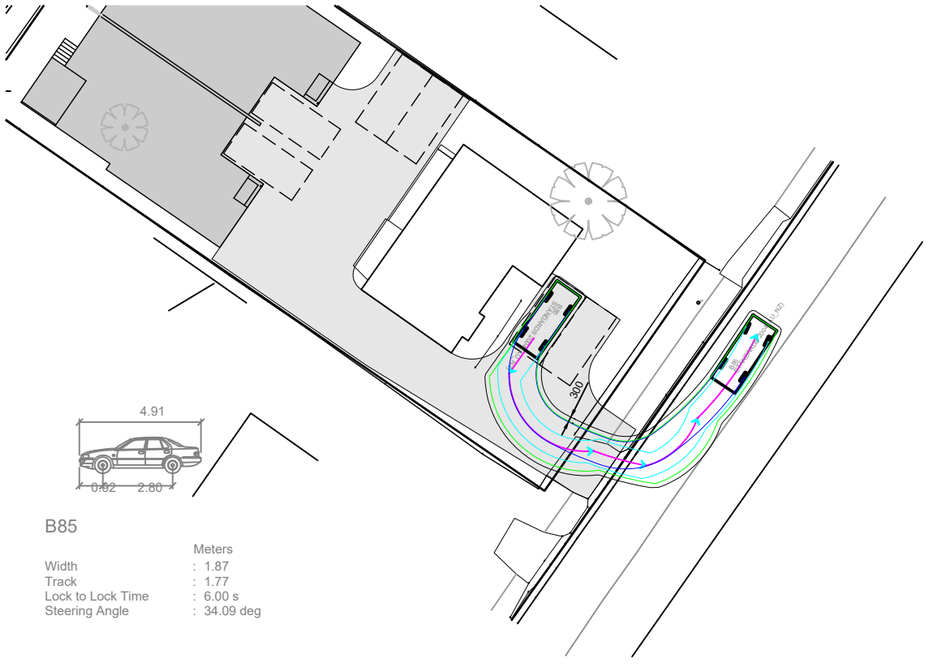

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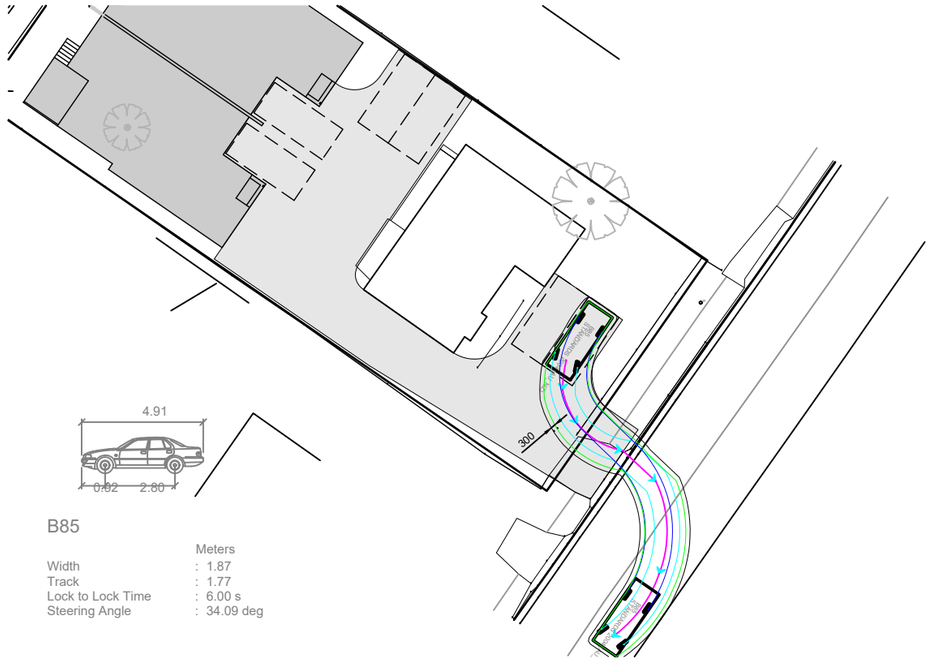

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WEST MOONAH

SHEET: VEHICLE TURNNING PLAN 3

PROJECT NAME: UNIT DEVELOPMENT

ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NE	NE	-	24/10/25

SCALE: 1:400 @ A3
SIZE: A3
S&E REF: 25366
DRAWING: C112
REVISION: 3

UNIT DEVELOPMENT
10 GARDEN GROVE
WEST MOONAH

DRAWING INDEX

HYDRAULIC LEGEND

- Direction
- Pipe riser / downpipe
- Pipe dropper
- Capped end
- Locate and connect
- Continuation
- Swivel expansion joint
- Disused pipe
- Cold or hot water point
- Tempering valve
- Stop valve
- Stop valve in pit
- Check valve
- Double check valve
- Reduced pressure zone device
- Overflow relief gully
- Fire booster valve
- Single fire hydrant
- dual pillar hydrant
- Fire hose reel
- Access panel
- Grated channel drain
- Hot water unit
- Inspection opening to surface
- pump
- Water service meter
- Hose tap
- Air admittance valve
- Pressure reduction valve
- Floor waste gully

Line	Description
S	Sewer new
EX S	Sewer existing
SW	Stormwater new
EX SW	Stormwater existing
SS	Sub-soil drain new
CW	Cold water new
EX W	Cold water existing
HW	Hot water new
EX HW	Hot water existing
TMW	Tempered mixed water

REV	DESCRIPTION	DATE
0	BUILDING APPROVAL	01/12/25

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ADDRESS:	10 GARDEN GROVE WEST MOONAH
SHEET:	DRAWING INDEX & LEGEND
PROJECT NAME:	UNIT DEVELOPMENT
ISSUE:	BUILDING APPROVAL
DRAWN:	NS
DESIGNED:	NS
VERIFIED:	NS
DATE:	01/12/25
SCALE:	NTS
SIZE:	A3
S&E REF:	25366
DRAWING:	H001
REVISION:	0

GENERAL NOTES:

1. THESE DRAWING ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS, PROJECT CONTRACT AND SPECIFICATIONS. STANDARDS REFERENCES ARE THE MOST RECENT VERSION.
2. SEWER, STORMWATER AND WATER SERVICES SHALL BE IN ACCORDANCE WITH THE TASMANIAN PLUMBING CODE, AS3500, WSAA CODES, TASWATER AND TO LOCAL AUTHORITY APPROVAL.
3. IT IS ASSUMED THAT ADJACENT TO THE DEVELOPMENT SITE IS ADEQUATE INFRASTRUCTURE PROVIDED BY THE LOCAL AUTHORITY AND OTHER STATUTORY AUTHORITIES TO SUPPLY ROAD ACCESS, WATER AND POWER AS REQUIRED BY THIS DESIGN; AND THERE IS ADEQUATE INFRASTRUCTURE OR ENVIRONMENTAL CAPACITY TO RECEIVE STORMWATER AND SEWERAGE DRAINAGE. PARTICULAR ASSUMPTIONS ARE DESCRIBED IN THE FOLLOWING SECTIONS.
4. THE LOCATION OF EXISTING SERVICES AND CONNECTION POINTS WHERE SHOWN ON PLANS ARE APPROXIMATE ONLY AND SHALL BE CONFIRMED ON SITE.
5. FOLLOWING AGREEMENT WITH THE SUPERINTENDANT, TERMINATE AND ABANDON REDUNDANT EXISTING SERVICES DISCOVERED DURING CONSTRUCTION AND MAKE A NOTE ON AS-CONSTRUCTED DRAWING.
6. LOCATE ALL EXISTING GAS, ELECTRICAL, TELECOMMUNICATIONS, WATER MAINS, SEWER MAINS AND STORMWATER MAINS ETC. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND ADVISE THE SUPERINTENDANT OF ANYTHING THAT APPEARS NOT BE HAVE BEEN CONSIDERED IN THE DESIGN.
7. CONFIRM ALL LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORKS.
8. HYDRAULIC LAYOUT TO BE COORDINATED WITH OTHER SERVICES. HYDRAULIC LAYOUT AS SHOWN IS NOTIONAL, LAYOUT TO BE CONFIRMED ON SITE.
9. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT A VALID BUILDING AND PLUMBING PERMIT AND START WORKS NOTICE IS IN PLACE FOR THE WORK AND THAT THE BUILDING SURVEYOR IS NOTIFIED OF ALL SITE INSPECTION REQUESTS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES CAUSED BY HIS SUB-CONTRACTORS, ANY SERVICE DAMAGED IS TO BE REINSTATED IMMEDIATELY.
11. ON COMPLETION OF WORKS PROVIDE THREE SETS OF AS-CONSTRUCTED DRAWINGS AND SERVICE MANUALS ALONG WITH ELECTRONIC DRAWING FILES IN PDF AND DWG FORMATS SUITABLE FOR READING WITH A RECENT VERSION OF ADOBE/AUTOCAD TO THE SUPERINTENDANT.
12. THE CONTRACTOR IS RESPONSIBLE FOR ORGANISING ALL SITE INSPECTIONS AND OBSERVING ALL HOLD POINTS NOMINATED WITHIN THE CONTRACT, BY THE BUILDING SURVEYOR OR PLUMBING SURVEYOR.
13. NOMINAL DIAMETERS FOR PIPES (DN) REFER TO THE INSIDE DIAMETER (ID BORE)
14. CONCEAL ALL PIPEWORK IN CEILING SPACE, DUCTS, CAVITIES, WALL CHASES, CUPBOARDS ETC. UNLESS OTHERWISE APPROVED.
15. THE CONTRACTOR SHALL ALLOW TO COORDINATE WITH MECHANICAL AND REFRIDGERATION SERVICES AND PROVIDE TUNDISHES CONNECTED TO SEWER OR STORMWATER AS APPROPRIATE TO ALL CONDENSATE DRAINAGE AND RELIEF VALVES. ALLOW TO PROVIDE AND INSTALL MAG IN-WALL TUNDISHES WITH STAINLESS STEEL COVER WINDOW (SUPPLIED BY MA GRIFFITH) OR EQUAL APPROVED TYPE.
16. TRENCHING FOR FLEXIBLE PIPEWORK SHALL BE IN ACCORDANCE WITH AS2566 AND AS3500.
17. ALL PIPEWORK UNDER TRAFFICABLE AREAS, SLABS OR PAVEMENTS IS TO BE FULLY BACKFILLED WITH COMPACTED FCR.

STORMWATER NOTES:

1. STORMWATER PIPE INFRASTRUCTURE HAS BEEN DESIGNED TO CONVEY A 20 YEAR AVERAGE RECURRENCE INTERVAL (ARI) AT A 5 MINUTE STORM DURATION, WITH OVERLAND FLOW PATHS PROVIDED FOR 1:100 ARI. IT IS ASSUMED THAT THE DOWNSTREAM INFRASTRUCTURE AND/OR ENVIRONMENT CAN SAFELY RECEIVE THE 1:20 ARI EVENT WITH A 5 MINUTE STORM DURATION.
2. ALL MATERIALS AND WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH AS3500, NCCA, TASMANIAN PLUMBING CODE, COUNCIL STANDARD DRAWINGS AND SPECIFICATION AND TO THE SATISFACTION OF COUNCIL'S DEVELOPMENT ENGINEER.
3. ALL ROOF DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH AS3500.3 AND THE REQUIREMENT FOR OVERFLOWS DONE TO SATISFY THE REQUIREMENTS OF THE NCCA.
4. ALL PIPEWORK SHALL BE MINIMUM DN100 UPVC SN4 AT 1:100 GRADE (1.00%) UNLESS NOMINATED OTHERWISE ON PLANS
5. MINIMUM GRADE OF PAVED AREAS AND PIPEWORK SHALL BE 1 IN 100 UNLESS NOTED OTHERWISE.
6. INSTALL ALL AG DRAINS TO THE REQUIREMENTS OF AS3500 AND PART 3.1.2 OF THE NCCA.
7. PROVIDE INSPECTION OPENINGS TO ALL DRAINAGE PIPEWORK IN ACCORDANCE WITH AS3500 REQUIREMENTS EVEN IF NOT SHOWN IN DRAWINGS.
8. PIPE AND CHANNEL INFRASTRUCTURE HAS BEEN DESIGNED TO CONVEY 20 YEAR AVERAGE RECURRENCE INTERVAL (ARI) STORMS, WITH OVERLAND FLOW PATHS PROVIDED FOR 100 YEAR ARI STORMS. IT IS ASSUMED THAT WATER FLOWING ONTO THE DEVELOPMENT SITE IS CONTAINED WITHIN LOCAL AUTHORITY INFRASTRUCTURE FOR 20 YEAR ARI STORMS AND THE ROAD RESERVE FOR 100 YEAR ARI STORMS.
9. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LOCAL AUTHORITY'S BY-LAWS AND AS/NZS3500.
10. STORMWATER TRENCHES, PIPE BEDDING AND BACK FILLING TO COMPLY WITH THE CONCRETE PIPE ASSOCIATION OF AUSTRALIA INSTALLATION REQUIREMENTS FOR TYPE HS2 SUPPORT.
11. BELOW GROUND PIPEWORK AND FITTINGS TO BE uPVC SWHD, JOINTS SHALL BE OF SOLVENT CEMENT TYPE OR FLEXIBLE JOINTS MADE WITH APPROVED RUBBER RINGS.
12. PIPEWORK SHALL BE LAID IN POSITION AND AT THE GRADES SHOWN.
13. MINIMUM GRADE OF PIPEWORK SHALL BE 1 IN 100 UNLESS NOTED OTHERWISE (U.N.O.).
14. MINIMUM SIZE OF PIPEWORK SHALL BE DN100.
15. SURFACE WATER DRAINS, CATCHPITS/GRATED PITS, AND JUNCTION BOXES SHALL BE CONSTRUCTED AS DETAILED OR AS SPECIFIED BY THE MANUFACTURER..

SEWER NOTES:

1. ALL MATERIALS AND WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH TASMANIAN PLUMBING CODE, COUNCIL STANDARD DRAWINGS AND SPECIF THE SATISFACTION OF COUNCIL'S DEVELOPMENT ENGINEER.
2. CONFIRM THE LOCATION AND LEVEL OF THE NOMINATED OUTLET PRIOR TO TRENCH EXCAVATION OR LAYING OF ANY DRAINS. ASCERTAIN FROM TASWATER ALL NECESSARY CONNECTION REQUIREMENTS AND INSTALL ALL WORK FOR CONNECTION IN ACCORDANCE WITH THESE REQUIREMENTS.
3. SEWER TRENCHES, PIPE BEDDING AND BACK FILLING TO COMPLY WITH AS2566.
4. ALL PIPEWORK SHALL BE ADEQUATELY SUPPORTED TO AS3500.
5. PIPEWORK SHALL BE CONSTRUCTED OF UNPLASTICISED POLYVINYL CHLORIDE (uPVC), U.N.O.
6. PIPEWORK SHALL HAVE BE MINIMUM CLASS SN4 UNLESS NOMINATED OTHERWISE ON PLANS.
7. PIPEWORK SHALL BE PRESSURE TESTED PROGRESSIVELY TO ENSURE NO LEAKS.
8. ALL PIPEWORK SHALL BE CONCEALED IN WALLS, VOID SPACE OR DUCTS UNLESS NOTED OTHERWISE.
9. MINIMUM GRADE OF PIPEWORK SHALL BE 1:40 FOR BRANCHES AND 1 IN 60 FOR DRAINS UNLESS NOTED OTHERWISE.
10. MINIMUM SIZE OF BRANCH DN65 AND MINIMUM SIZE OF DRAINS SHALL BE DN100.
11. ALL FITTINGS TO BE ISOLATED BY AN APPROVED TRAP PRIOR TO CONNECTION TO THE SEWER LINE.
12. PROVIDE AIR ADMITTANCE VALVES AND ATMOSPHERIC VENTS IN ACCORDANCE WITH AS3500 REQUIREMENTS.
13. INSPECTION OPENINGS SHALL BE PROVIDED IN ACCORDANCE WITH AS3500.
14. ONE OVERFLOW RELIEF GULLY SHALL BE PROVIDED FOR THE SITE WHICH SHALL BE PRIMED BY AN EXTERNAL WATER SOURCE.
15. WHERE PIPEWORK PENETRATES FIRE RATED WALLS OR FLOORS, A FIRE STOP COLLAR SHALL BE INSTALLED. ALL WORK SHALL BE STRICTLY INSTALLED TO THE MANUFACTURER'S RECOMMENDATIONS.
16. NO SEWER CONNECTIONS SHALL BE MADE WITHIN RESTRICTED ZONES OF STACKS AS PER AS3500. INSTALL LONG RADIUS BENDS AT THE BASE OF ALL STACKS AS PER AS3500 AND INCLUDE ALL BRACKETS AND SUPPORTS.

REV	DESCRIPTION	DATE
0	BUILDING APPROVAL	01/12/25

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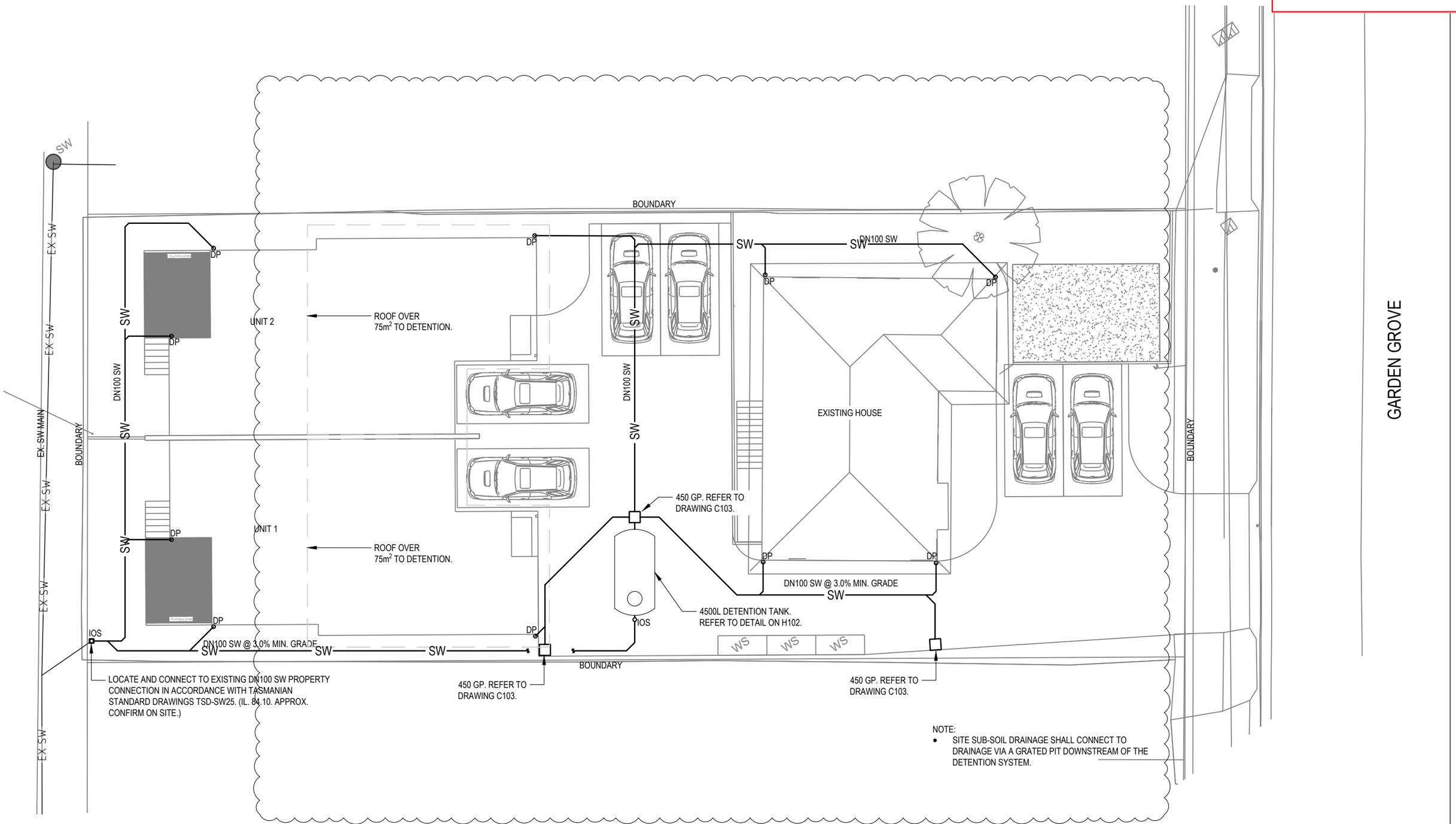
SHEET: HYDRAULIC NOTES
PROJECT NAME: UNIT DEVELOPMENT
ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NS	NS	NS	01/12/25

SCALE:	SIZE:
NTS	A3

S&E REF:	DRAWING:	REVISION:
25366	H002	0



REV	DESCRIPTION	DATE
0	BUILDING APPROVAL	01/12/25
1	BUILDING APPROVAL	19/12/25
2	BUILDING APPROVAL	02/01/26
3	BUILDING APPROVAL	20/01/26

North

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CLIENT: LAN & ZHU

ADDRESS: 10 GARDEN GROVE
WEST MOONAH

SHEET: STORMWATER DRAINAGE PLAN

PROJECT NAME: UNIT DEVELOPMENT

ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NS	NS	NS	20/01/26

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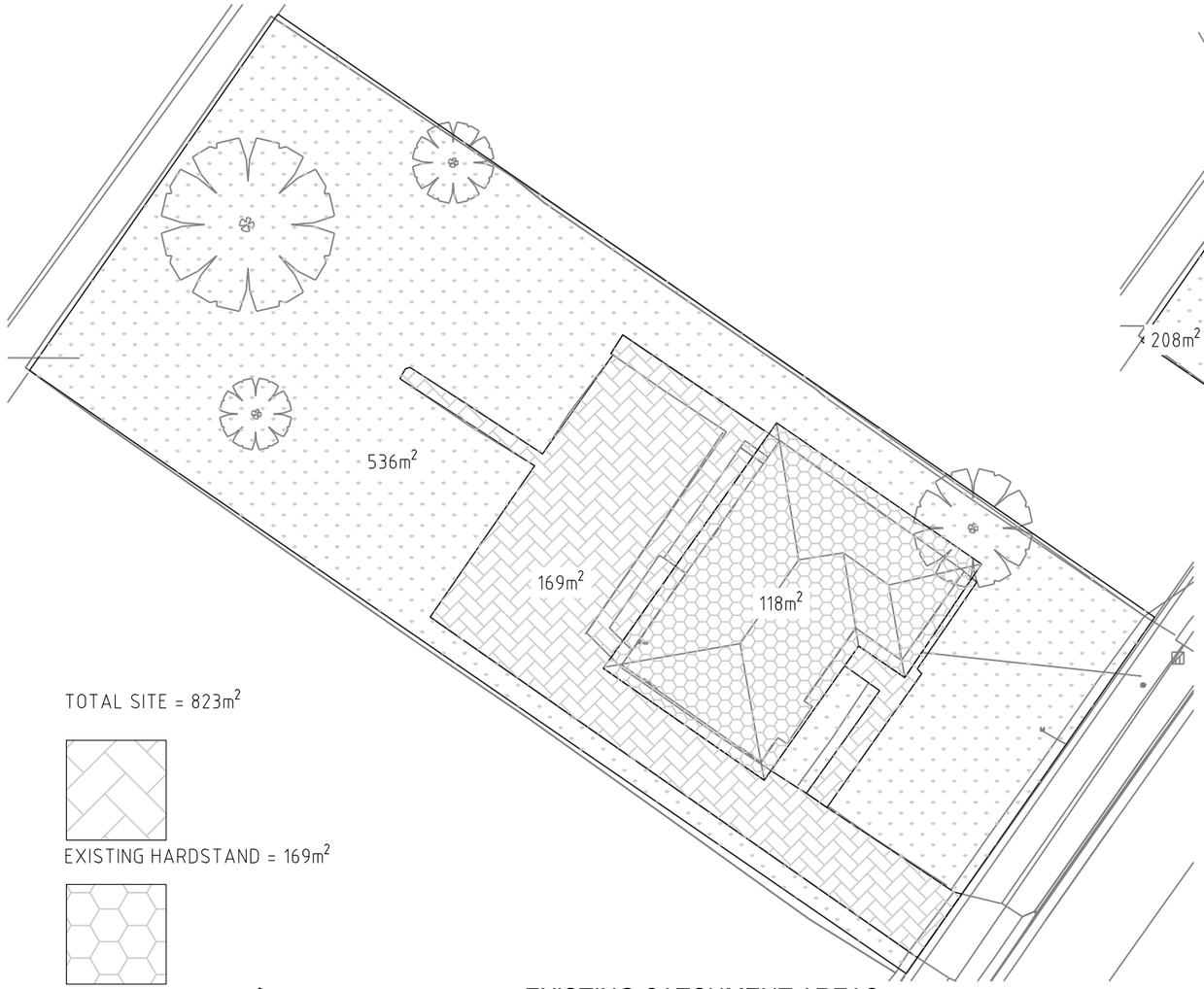


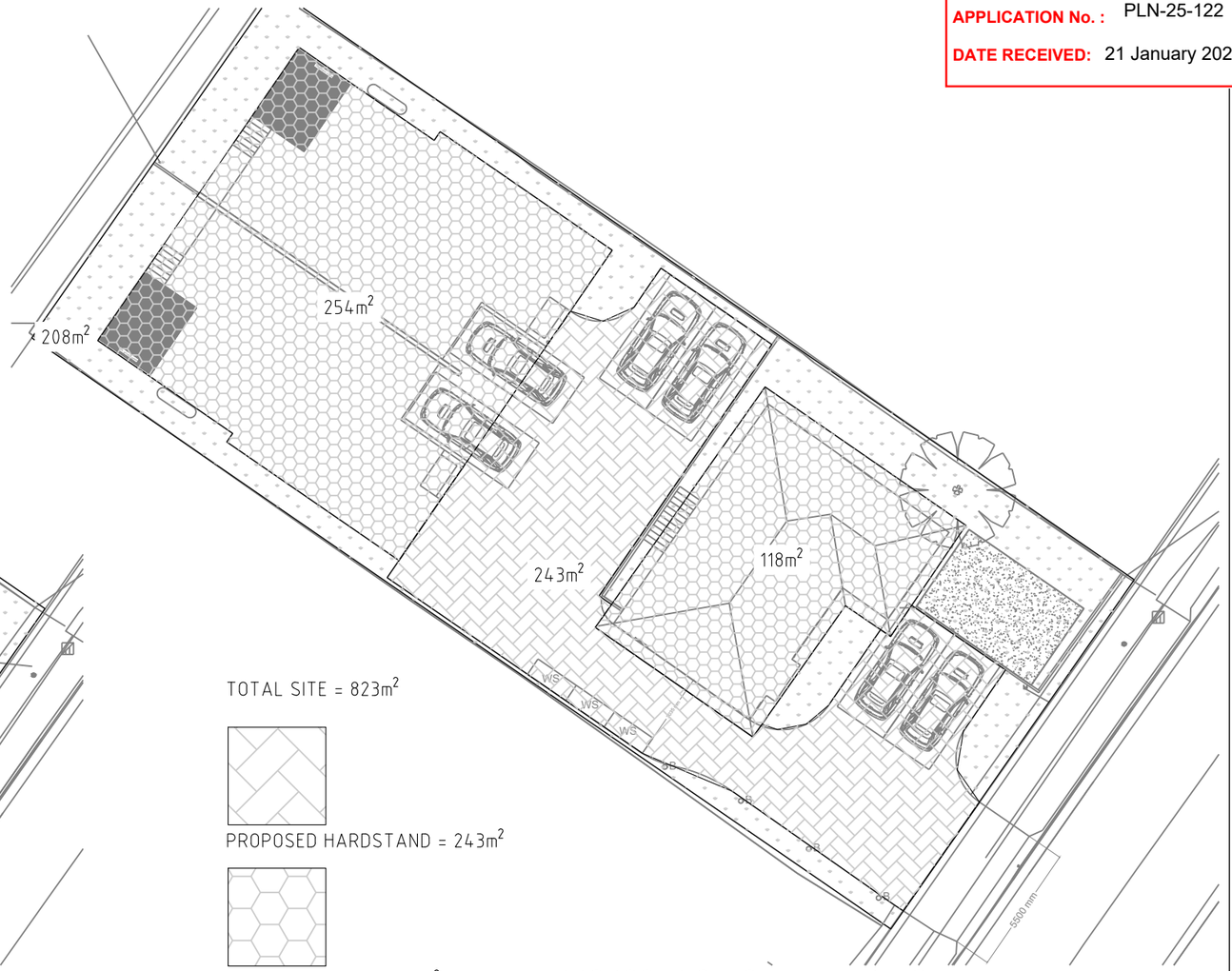
TOTAL SITE = 823m²

EXISTING HARDSTAND = 169m²

EXISTING ROOF = 118m²

EXISTING GARDEN = 536m²

EXISTING CATCHMENT AREAS
NTS



TOTAL SITE = 823m²

PROPOSED HARDSTAND = 243m²

PROPOSED ROOF = 372m²

EXISTING GARDEN = 208m²

PROPOSED CATCHMENT AREAS
NTS

REV	DESCRIPTION	DATE
0	BUILDING APPROVAL	01/12/25

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ADDRESS: 10 GARDEN GROVE
WEST MOONAH

SHEET: SITE AREA CHARACTERISTICS

PROJECT NAME: UNIT DEVELOPMENT

ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NS	NS	NS	01/12/25

SCALE:	SIZE:
NTS	A3

S&E REF:	DRAWING:	REVISION:
25366	H101	0

ON-SITE STORMWATER DETENTION

ASSESSED USING RATIONAL METHOD WITH 5% AEP 30 MINUTE DURATION DESIGN STORM (34.7mm/h)

TOTAL DEVELOPMENT AREA = 823m²

PRE-DEVELOPMENT AREAS		DEVELOPMENT AREAS	
ROOF (C=1.0)	118m²	ROOF (C=1.0)	372m²
IMPERVIOUS (C=0.9)	169m²	IMPERVIOUS (C=0.9)	243m²
GARDEN (C=0.4)	536m²	GARDEN (C=0.4)	208m²
PERMISSIBLE SITE DISCHARGE	4.67L/s	PEAK FLOW RATE	6.5 L/s
EQUIV. VOLUME	1401L	EQUIV. VOLUME (L)	1949 L

SITE STORAGE REQUIREMENT = 3724L

AREAS DETAINED		AREAS NOT DETAINED	
EXISTING & NEW ROOF (C=1.0)	268m² (2.58L/s)	NEW ROOF (C=1.0)	104m² (1.0L/s)
IMPERVIOUS (C=0.9)	243m² (2.11 L/s)	IMPERVIOUS (C=0.9)	0m²
GARDEN (C=0.4)	0m²	GARDEN (C=0.4)	208m² (0.8L/s)

PEAK FLOW TO DETENTION = 4.69 L/s

UNDETAINED PEAK FLOW = 1.8 L/s

DETENTION DISCHARGE REQUIREMENT = 2.87 L/s MAXIMUM

DETENTION PROVIDED WITH 4500L UNDERGROUND TANK

MAXIMUM OSD WATER DEPTH = 1230mm

MAXIMUM CONTROLLED FLOW RATE WITH 34mm ORIFICE = 2.77 L/s

CRITICAL STORM DURATION

DURATION (MIN)	INTENSITY (mm/hr)	PEAK RUNOFF (L/s)	TOTAL RUNOFF VOLUME (L)	DETENTION REQUIREMENT (L)	UNDETAINED VOLUME (L)	OSD VOLUME OUT (L)
5	84.8	15.87	4762	2580	1323	860
10	63.8	11.94	7166	3456	1991	1719
15	51.8	9.70	8727	3724	2424	2579
20	44.1	8.26	9906	3716	2752	3439
25	38.7	7.24	10867	3550	3019	4298
30	34.7	6.50	11692	3286	3248	5158
45	27.1	5.07	13697	2155	3805	7737
60	22.7	4.25	15298	732	4249	10316
90	17.8	3.33	17993	-2480	4998	15474

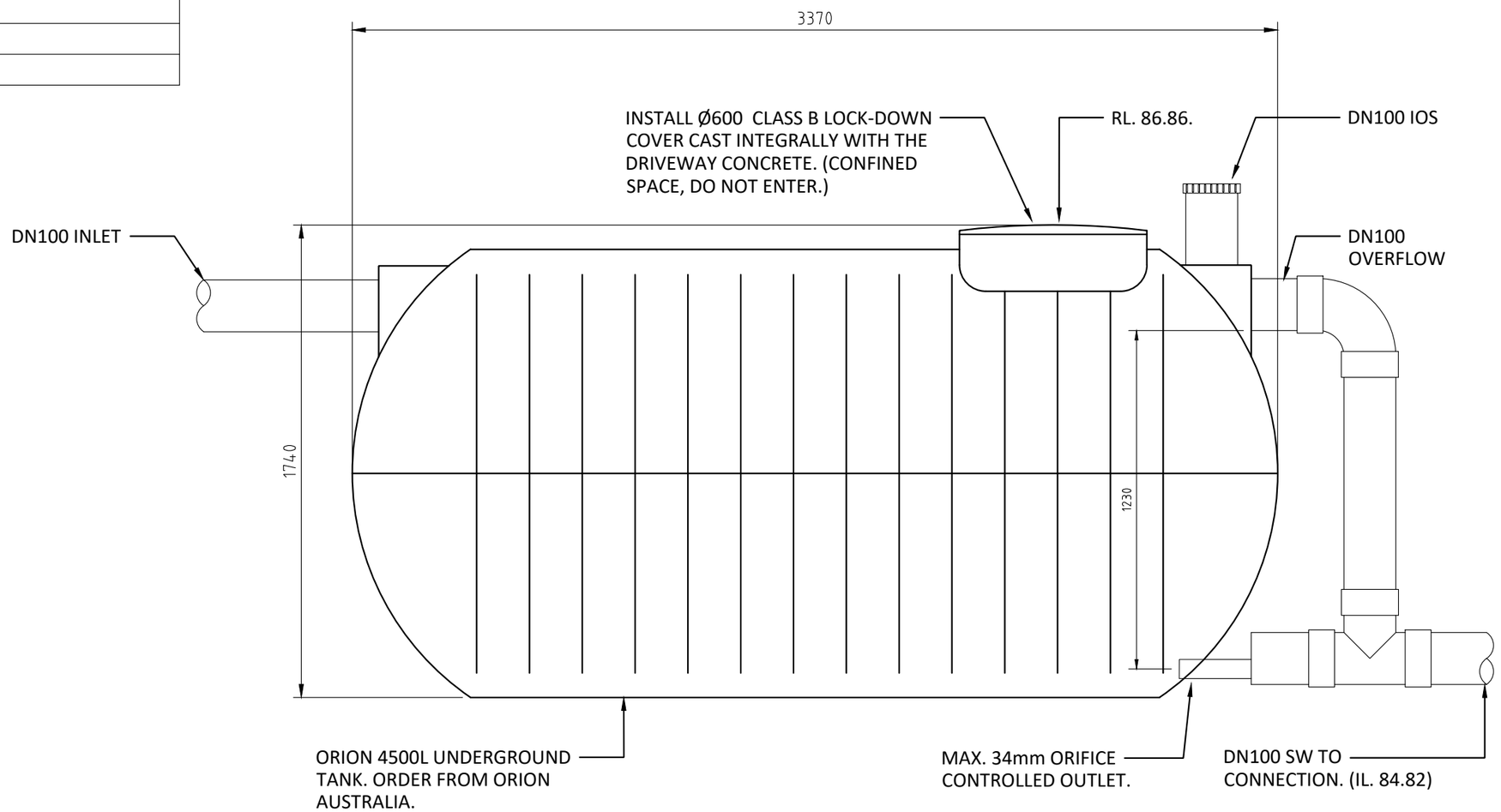
STORMWATER DETENTION GENERAL MAINTENANCE

TASK	ACTION	FREQUENCY
INSPECT ORIFICE - OWNER	REMOVE ANY BLOCKAGES VIA THE INSPECTION OPENING	4 TIMES PER YEAR
CLEAN GRATED PITS - OWNER	CLEANOUT AND REMOVE ANY SLUDGE AND DEBRIS IN GRATED PITS.	4 TIMES PER YEAR
INSPECT GUTTERS - OWNER	INSPECT GUTTERS OF BUILDING AND REMOVE ANY SLUDGE / DEBRIS.	4 TIMES PER YEAR
DETAILED INSPECTION - LICENCED PLUMBER	CLEAN DETENTION TANK OF SLUDGE AND DEBRIS, CHECK ORIFICE DIAMETER FOR CORRECT SIZE AND RETAINS SHARP EDGE, INSPECT AND CLEAN ASSOCIATED PIPEWORK.	EVERY 5 YEARS

GLENORCHY CITY COUNCIL PLANNING SERVICES

APPLICATION No. : PLN-25-122

DATE RECEIVED: 21 January 2026



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SHEET: STORMWATER DETENTION DETAILS

PROJECT NAME: UNIT DEVELOPMENT

ISSUE: BUILDING APPROVAL

DRAWN:	DESIGNED:	VERIFIED:	DATE:
NS	NS	NS	05/01/26

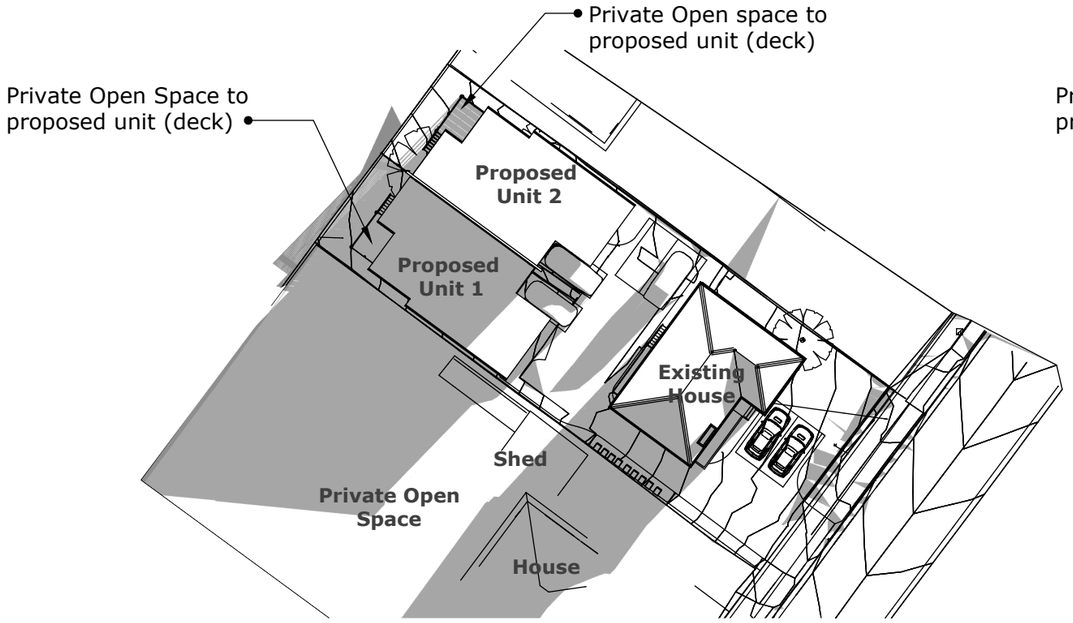
SCALE: NTS

SIZE: A3

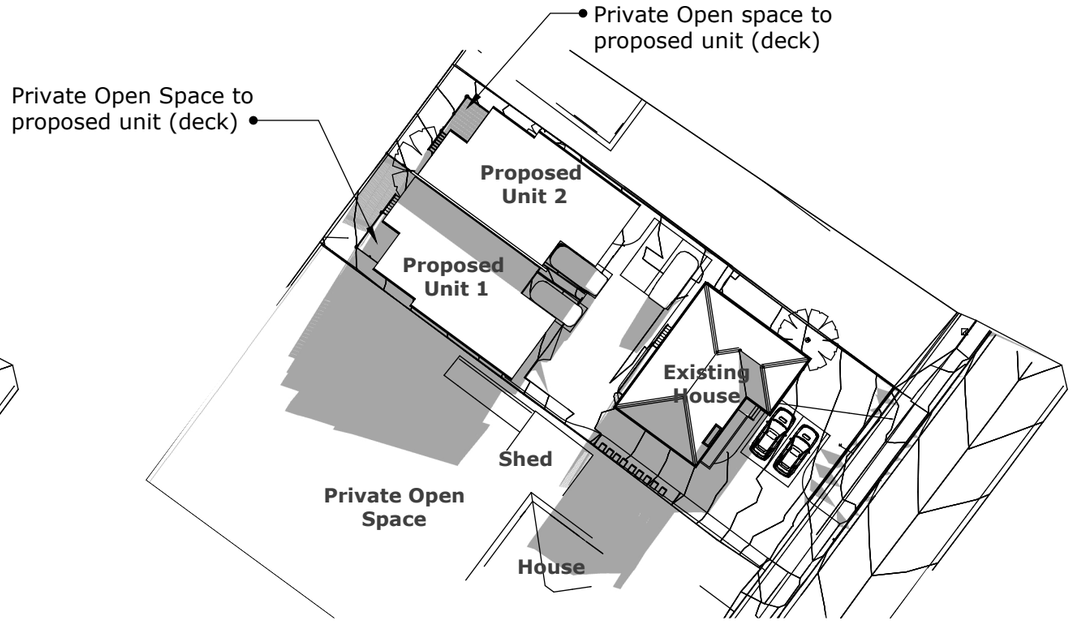
S&E REF: 25366

DRAWING: H102

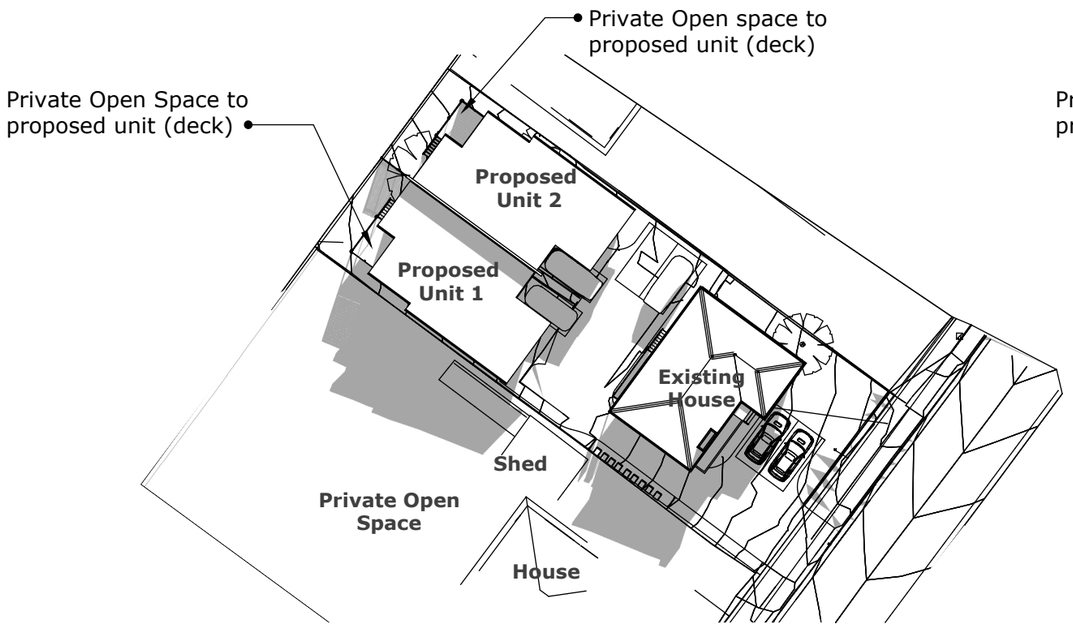
REVISION: 2



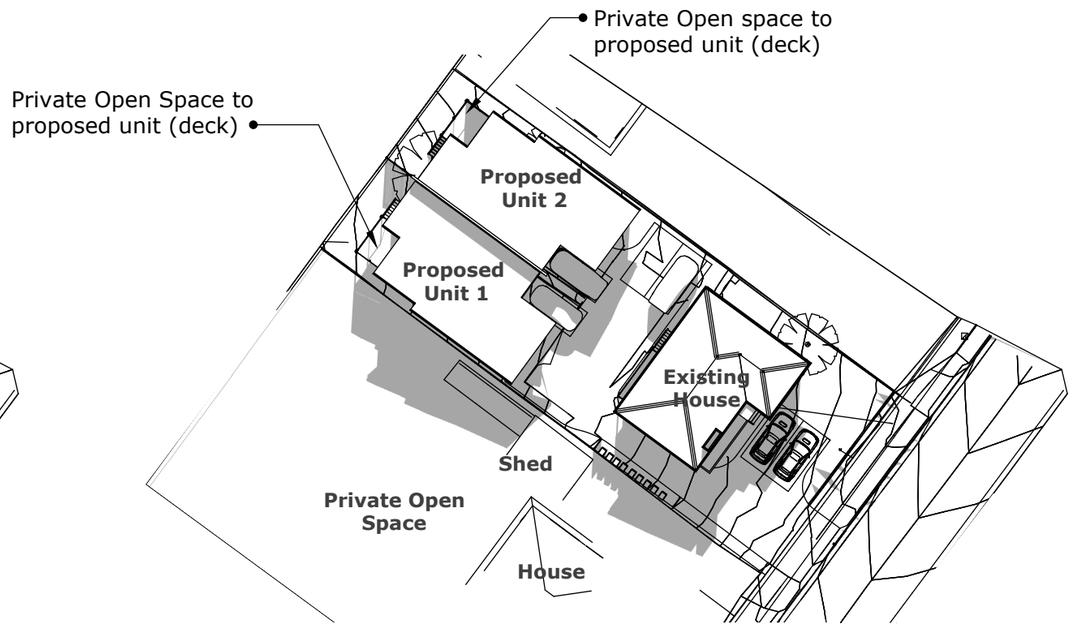
9am - Winter Solstice 1 / A01
Scale: 1 : 500



10am - Winter Solstice 1 / A01
Scale: 1 : 500



11am - Winter Solstice 1 / A01
Scale: 1 : 500



12pm - Winter Solstice 1 / A01
Scale: 1 : 500

WEST ELEVATION Design

West Elevation Design
5 Dynnyrne Rd
Dynnyrne

CLIENT
Ruyin Lan & Lingwei Zhu

PROJECT
10 Garden Grove, West Moonah

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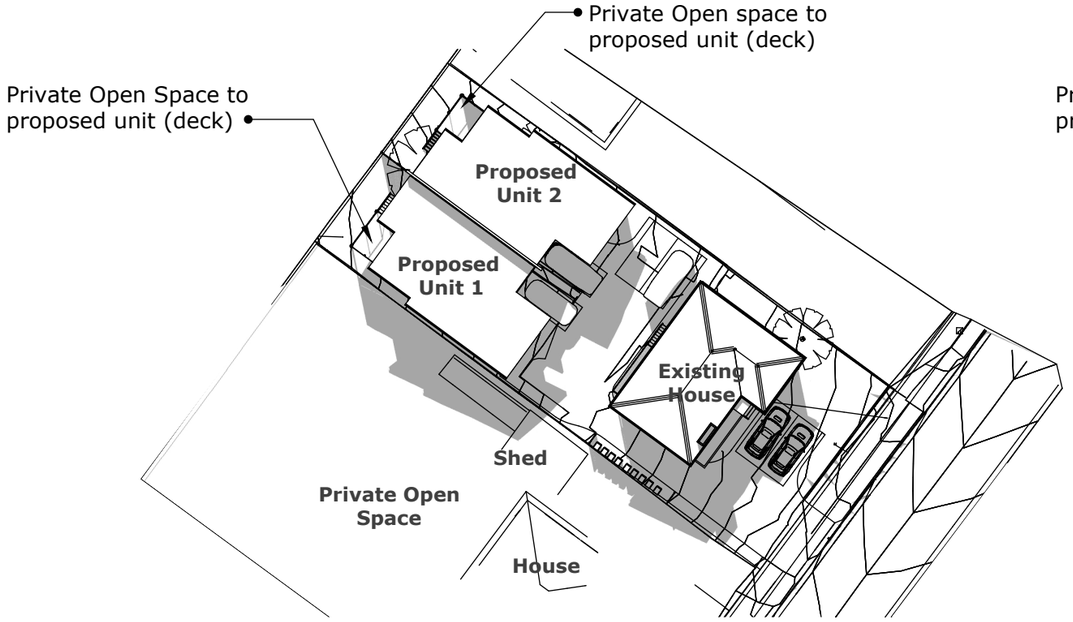
ISSUE
28/04/2025

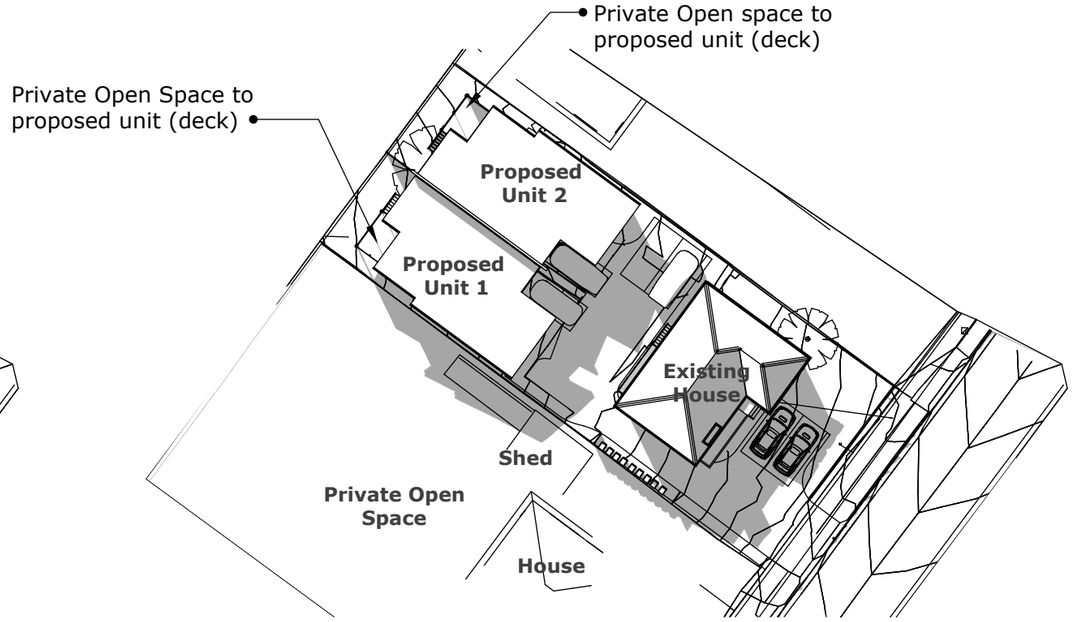
RE-ISSUE
N/A

DESCRIPTION
Winter Solstice Sun Diagrams per hour

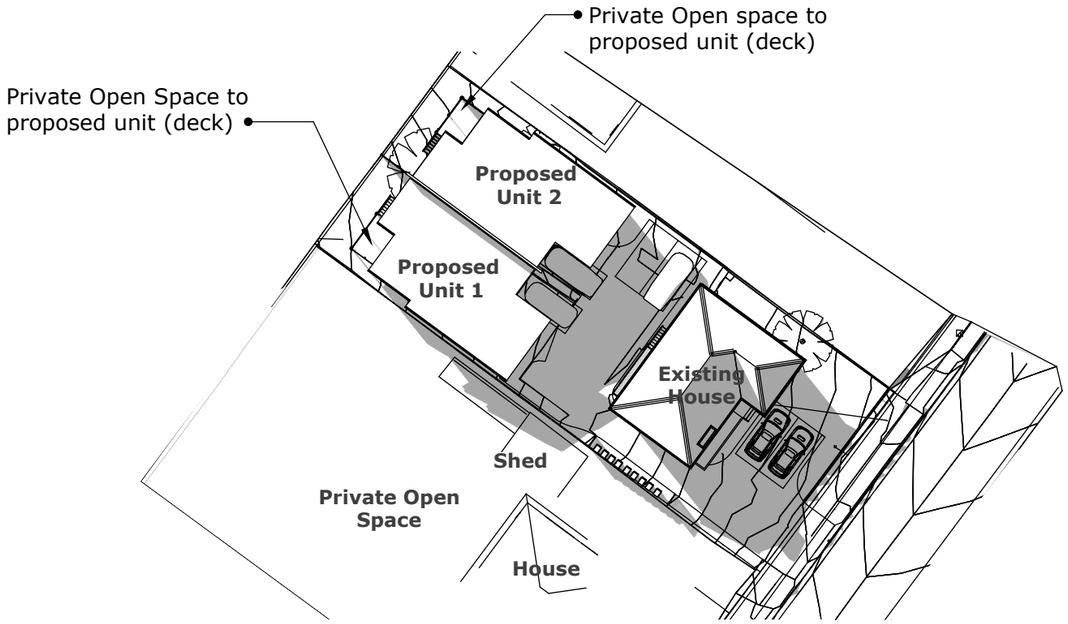
A09a



1pm - Winter Solstice 1
Scale: 1 : 500 A01



2pm - Winter Solstice 1
Scale: 1 : 500 A01



3pm - Winter Solstice 1
Scale: 1 : 500 A01

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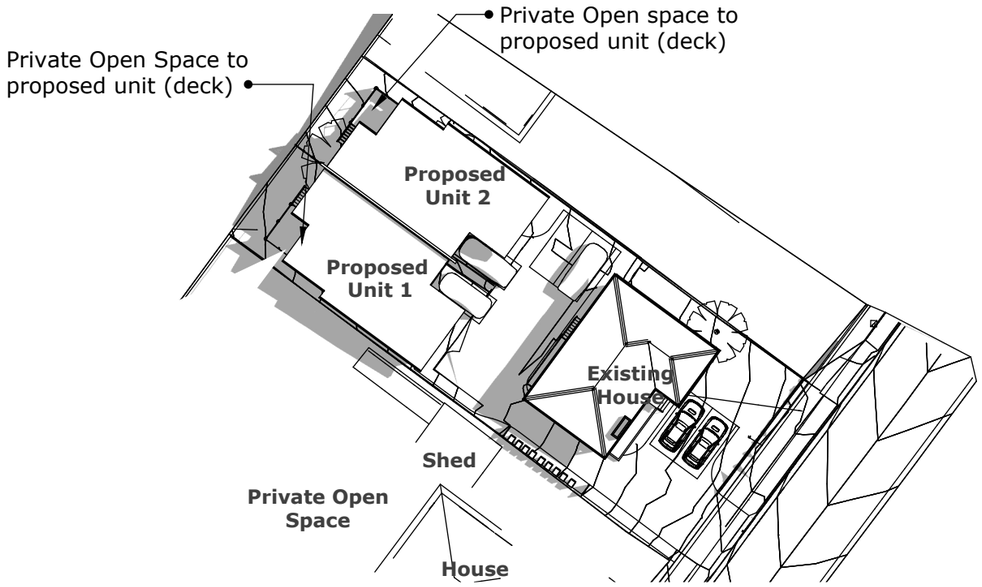
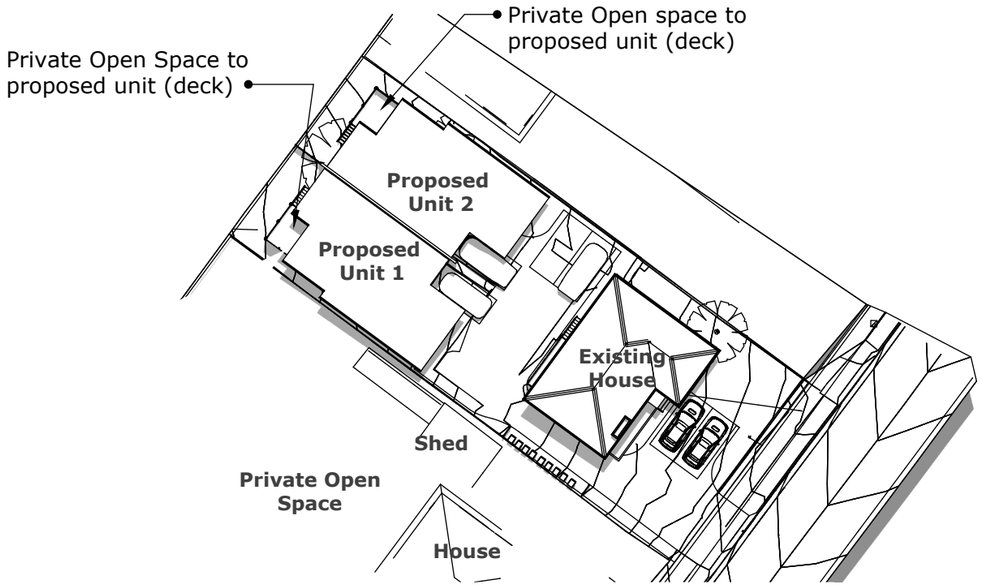
DESCRIPTION
Winter Solstice Sun Diagrams
per hour

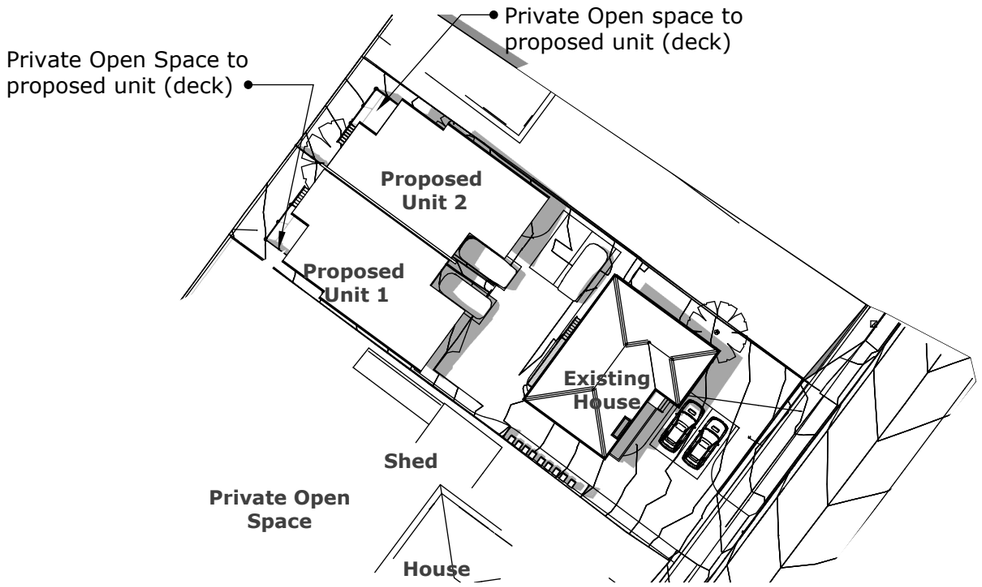
A09b



9am - Summer Solstice 1
Scale: 1 : 500 A01



12pm - Summer Solstice 1
Scale: 1 : 500 A01



3pm - Summer Solstice 1
Scale: 1 : 500 A01

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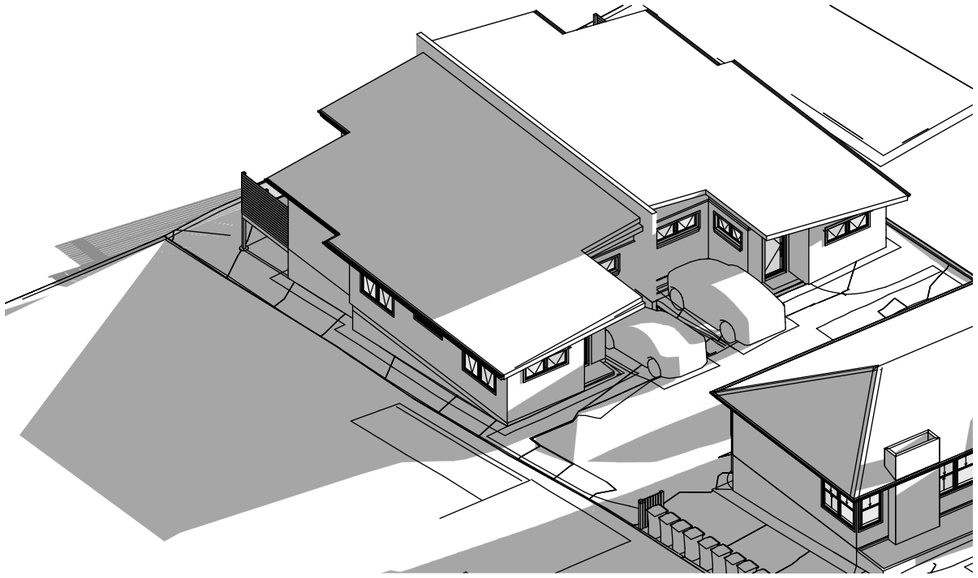
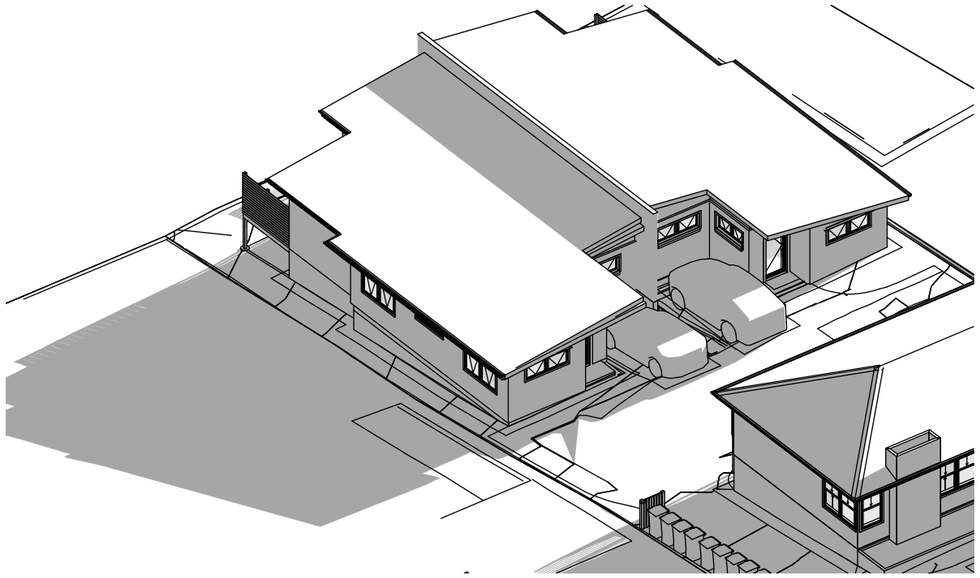
DESCRIPTION
Summer Solstice Sun Diagrams

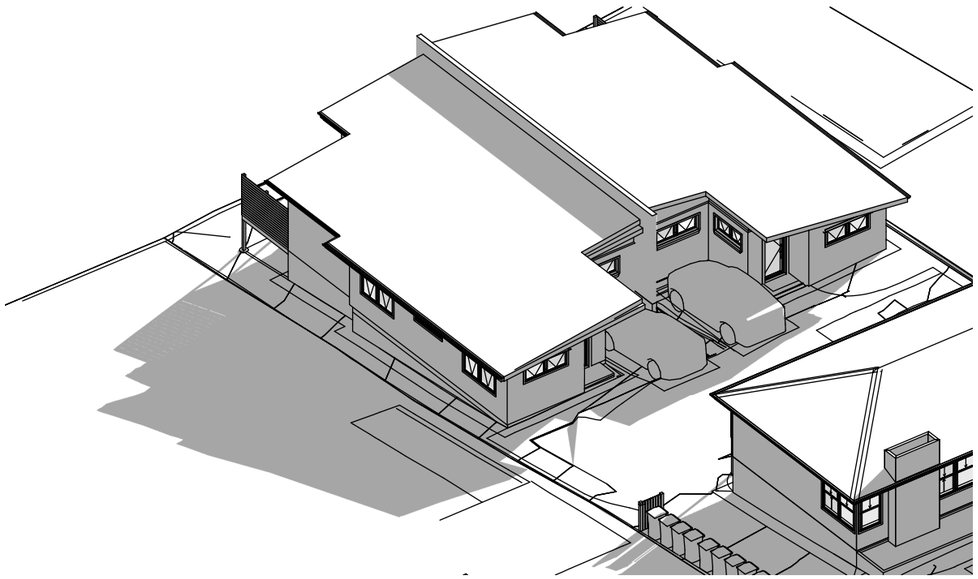
A09c



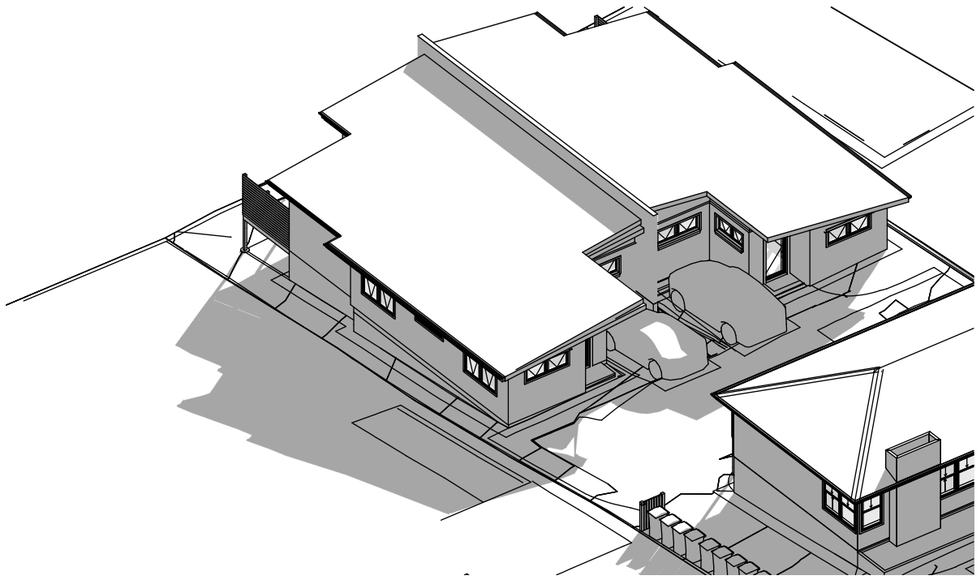
9am - Winter Solstice 1 / A01
Scale: 1 : 500



10am - Winter Solstice 1 / A01
Scale: 1 : 500



11am - Winter Solstice 1 / A01
Scale: 1 : 500



12pm - Winter Solstice 1 / A01
Scale: 1 : 500

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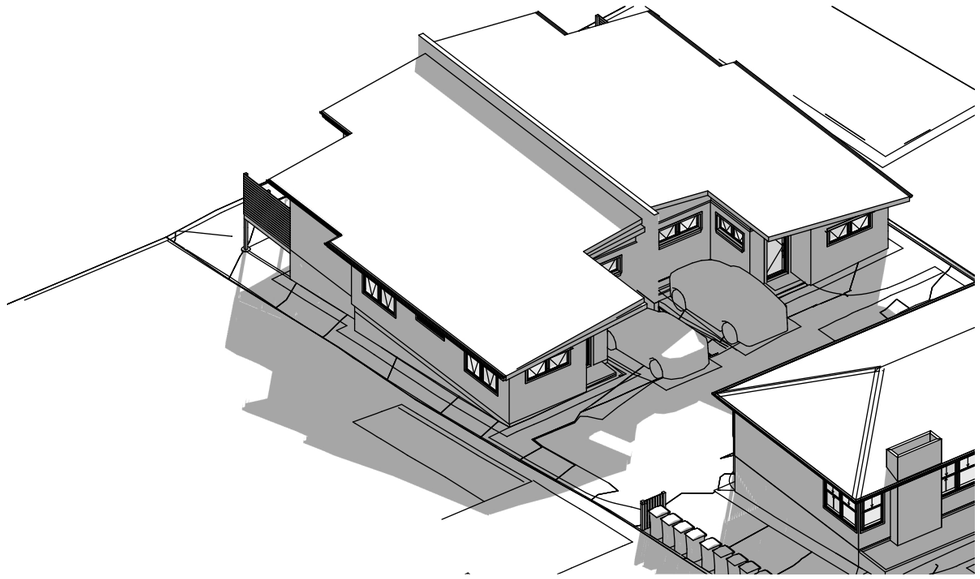
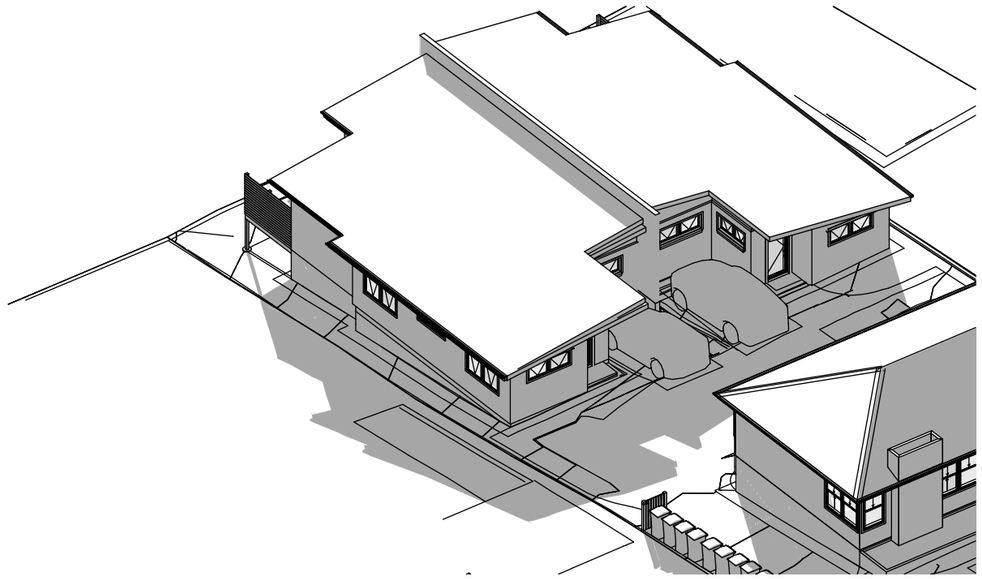
DESCRIPTION
Winter Solstice Sun Diagrams per hour 3D

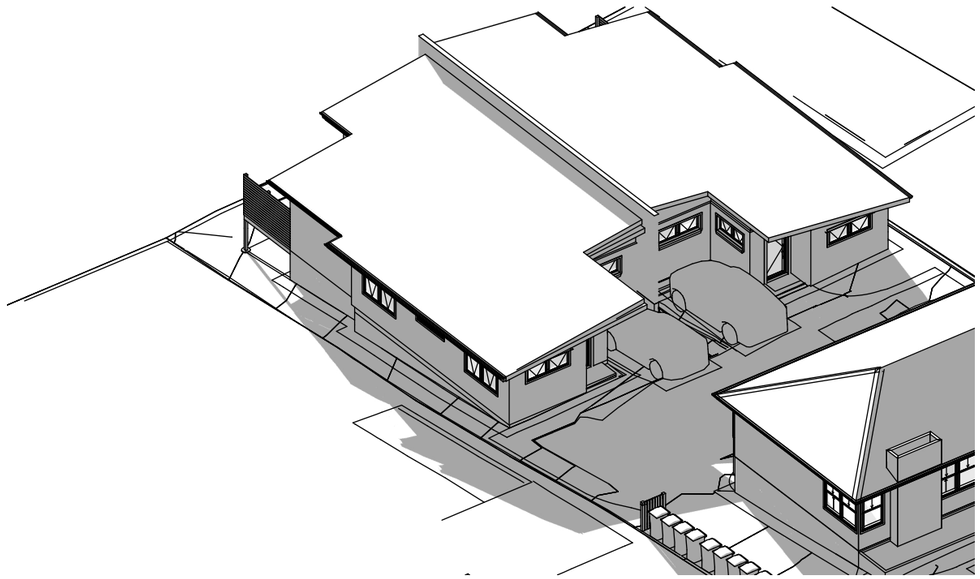
A09d



1pm - Winter Solstice 1 / A01
Scale: 1 : 500



2pm - Winter Solstice 1 / A01
Scale: 1 : 500



3pm - Winter Solstice 1 / A01
Scale: 1 : 500

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A09e