

ENERGY COMPLIANCE REPORT

NATIONAL CONSTRUCTION CODE SERIES 2016 - VOLUME TWO

ENERGY ASSESSOR - David Burton : Accreditation No.VIC/BDAV/15/1683

SITE ADDRESS - Dwelling 5 @ No.541, Anzac Highway, Glenelg East

CLIENT - D'Andrea & Associates

OWNER - WP Property Group

JOB REF - DA-4891

DATE - 20/05/2018

BCA Part 3.12.1.1 - Building Fabric Thermal Insulation

Requirements

Where required, insulation must comply with AS/NZS 4859.1

Installation shall abut or overlap adjoining insulation, form a continuous barrier with ceilings, walls, bulkheads, floors or the like and not affect the safe or effective operation of a domestic service or fitting

Where required, reflective insulation must be installed with-

The necessary airspace to achieve the required R-Value and reflective insulation shall be closely fitted against any penetration, door or window and adequately supported by framing members, overlapped not less than 150mm or taped together

Where required, bulk insulation must be installed so that-

It maintains its position and thickness and in a ceiling where there is no bulk insulation or reflective insulation in the external wall beneath it overlaps the external wall by not less than 50mm

BCA Part 3.12.1.2(a) - Roofs

Requirements

Achieve the Total R-Value as specified

Where a pitched roof has a flat ceiling, have not less than 50% of the added insulation laid on the ceiling

Required - Minimum Total R-Value 5.1

BCA Part 3.12.1.2(b) - Roofs

Requirements

In climate zones 1-5 (inclusive), the Total R-Value specified is reduced by 0.5 where the required insulation is laid on the ceiling and the roof space is ventilated by gable vents, ridge vents, eave vents, roof vents or the like and not less than 2 wind-driven roof ventilators

BCA Part 3.12.1.2(c) - Roofs

Requirements

A roof that is required to achieve a minimum Total R-Value and has metal sheet roofing directly fixed to metal purlins, metal rafters or metal battens and does not have a ceiling lining or has a ceiling lining fixed directly to those metal purlins, metal rafters or metal battens must have a thermal break, consisting of a material with an R-Value of not less than 0.2, installed between the metal sheet roofing and its supporting metal purlins, metal rafters or metal battens

BCA Part 3.12.1.2(d) - Roofs

Requirements

A roof, or roof and associated ceiling, is deemed to have the Total R-Value as specified

Required - Pitched Sheet Roof with flat ceiling has a Total R-Value of 0.39, therefore provide minimum TOTAL R-VALUE OF 4.71

BCA Part 3.12.1.2(e) - Roofs

Requirements

For operational or safety reasons associated with exhaust fans, flues or recessed downlights, the area of required ceiling insulation is reduced, the loss of insulation must be compensated for by increasing the R-Value of insulation in the remainder of the ceiling

Note - No electrical layout provided at time of assessment.

- If recessed downlights are to be installed, IC rated recessed downlights shall be provided.

BCA Part 3.12.1.3(a) - Roof Lights

Requirements

If the roof lights are not required for compliance, roof lights shall comply with Table 3.12.1.2 and have an aggregate area of not more than 3% of the total floor area of the storey served

BCA Part 3.12.1.3(b) - Roof Lights**Requirements**

If the roof lights are required for compliance, have an area not more than 150% of the minimum area and have transparent and translucent elements, including any imperforate ceiling diffuser with an SHGC of not more than 0.29 and a Total U-Value of not more than 2.9

BCA Part 3.12.1.4(a) - External walls**Requirements**

Each part of an external wall must satisfy the requirements of Table 3.12.1.3a for all walls or Table 3.12.1.3b for walls with a surface density of not less than 220 kg/m² except for opaque non-glazed openings such as doors (including garage doors), vents, penetrations, shutters and the like and glazing unless covered by Table 3.12.1.3b

Required - Minimum Total R-Value 2.8

BCA Part 3.12.1.4(b) - External walls**Requirements**

A wall that has lightweight external cladding such as weatherboards, fibre-cement or metal sheeting fixed to the metal frame and does not have a wall lining or has a wall lining that is fixed directly to the metal frame must have a thermal break, consisting of a material with an R-Value of not less than 0.2 installed between the external cladding and the metal frame

BCA Part 3.12.1.4(c) - External walls**Requirements**

A wall constructed in accordance with Figure 3.12.1.3 is deemed to have the Total R-Value specified in that Figure if it has an airspace

Required - Hebel walling system has a Total R-Value of 0.91, therefore provide minimum TOTAL R-VALUE OF 1.89

Required - 75mm Rendapanel veneer system has a Total R-Value of 2.17, therefore provide minimum TOTAL R-VALUE OF 0.63

Required - Scyon Matrix walling system has a Total R-Value of 0.41, therefore provide minimum TOTAL R-VALUE OF 2.39

BCA Part 3.12.1.5(a) - Floors**Requirements**

A suspended floor, other than an intermediate floor in a building with more than one storey must achieve the Total R-Value specified, an in-slab heating or cooling system must be insulated and that is enclosed beneath, must have a barrier to prevent convection installed below floor level between the airspace under the floor and any wall cavities

BCA Part 3.12.1.5(b) - Floors**Requirements**

A floor is deemed to have the Total R-Value specified in Table 3.12.1.5

Required - Minimum Total R-Value 1.0

BCA Part 3.12.1.5(c) - Floors**Requirements**

A concrete slab -on-ground with an in-slab heating or cooling system, must have insulation with an R-Value of not less than 1.0, installed around the vertical edge of its perimeter

Required - Suspended Timber floor has a Total R-Value of 0.39, therefore provide minimum TOTAL R-VALUE OF 0.61

BCA Part 3.12.1.5(d) - Floors**Requirements**

Insulation required by Part 3.12.1.5(c) must be water resistant and be continuous from the adjacent finished ground level to a depth of not less than 300mm or for at least the full depth of the vertical edge of the concrete slab-on-ground

BCA Part 3.12.1.6 - Attached Class 10a buildings**Requirements**

A Class 10a building must-

Have an external fabric that achieves the required level of thermal performance for a Class 1 building or be separated from the Class 1 building with construction having the required level of thermal performance for the Class 1 building or
In a climate zone 5-

Be enclosed with masonry walls other than where there are doors and glazing and be separated from the Class 1 building with a masonry wall that extends to the ceiling and roof and achieve a Total R-Value in the roof equivalent to that required by Table 3.12.1.1 for the Class 1 building and not have a garage door facing the east or west orientation other than if the Class 1 building glazing complies with 3.12.2.1 with the applicable value for Cshgc reduced by 15%

Required - R1.95 Insulation to dividing wall between Garage & Dwelling only

BCA Part 3.12.2.1 - External glazing

Requirements

The aggregate conductance of the glazing in each storey including any mezzanine of a building must use the following:

Climate Zone 5 - $C_u = 13.464$ (standard & high air movement)

Climate Zone 6 - $C_u = 6.418$ (standard & high air movement)

The aggregate solar heat gain of the glazing in each storey including any mezzanine of a building must not exceed the allowances

resulting area from multiplying the of the storey including any mezzanine measured within the enclosing walls by the constant C_{shgc} :

Climate Zone 5 - $C_{shgc} = 0.122$ (standard air movement) & $C_{shgc} = 0.134$ (high air movement)

Climate Zone 6 - $C_{shgc} = 0.153$ (standard air movement) & $C_{shgc} = 0.168$ (high air movement)

BCA Part 3.12.2.2 - Shading

Requirements

Where shading is required, it must be provided by an external permanent projection, such as a verandah, balcony, fixed canopy, eaves, shading hood or carport or be provided by an external shading device such as a shutter, blind, vertical or horizontal building screen with blades, battens or slats which are capable of restricting at least 80% of the summer solar radiation and if adjustable, is readily operated either manually, mechanically or electronically by the building occupants

BCA Part 3.12.3 - Building Sealing

Requirements

Applies to Class 1 building and a Class 10a building with a conditioned space

BCA Part 3.12.3.1 - Chimneys and flues

Requirements

The chimney or flue of an open solid-fuel burning appliance must be provided with a damper or flap that can be closed to seal the chimney or flue

BCA Part 3.12.3.2 - Roof lights

Requirements

A roof light must be sealed or capable of being sealed when serving a conditioned space or a habitable room in climate zones 4-8 . (inclusive). A roof light must be constructed with an impermeable ceiling diffuser or the like at the ceiling or internal lining level or a weatherproof seal or a shutter system readily operated either manually, mechanically or electronically by the occupant.

BCA Part 3.12.3.3 - External windows and doors

Requirements

A seal to restrict air infiltration must be fitted to each edge of an external door, openable window and other such opening when serving a conditioned space or habitable room.

A seal must be a draft protection device.

BCA Part 3.12.3.4 - Exhaust fans

Requirements

An exhaust fan must be fitted with a sealing device such as a self-closing damper, filter or the like when serving a conditioned space or a habitable room.

BCA Part 3.12.3.5 - Construction of roofs, walls and floors

Requirements

Roofs, external walls, external floors and any any opening such as a window frame, door frame, roof light frame or the like must be constructed to minimise air leakage when forming part of the external fabric.

BCA Part 3.12.3.6 - Evaporative coolers

Requirements

An evaporative cooler must be fitted with a self-closing damper or the like when serving a heated space or a habitable room.

BCA Part 3.12.4 - Air movement

Requirements

This part applies to a habitable room in a Class 1 building

BCA Part 3.12.4.1 - Air movement

Requirements

Air movement must be provided to habitable rooms

Climate Zone 5 - Without a ceiling fan or evaporative cooler - 7.5%, With a ceiling fan - 5.0%

Air movement may be provided through an opening from an adjoining room

BCA Part 3.12.4.2 - Ventilation openings

Requirements

In climate zone 5, the total ventilation opening area required to a habitable room must be connected by a breeze path to another ventilation opening in another room or space or be provided by a minimum of two ventilation openings located within the same habitable room. A breeze path must pass through not more than two openings in the internal walls and have a distance along the ventilation breeze path between 20m.

BCA Part 3.12.4.3 - Ceiling fans and evaporative coolers

Requirements

Ceiling fans or evaporative coolers required must be permanently installed and have a speed controller

BCA Part 3.12.5.0 - Services

Requirements

A hot water supply system must be designed and installed in accordance with Part B2 of NCC Volume Three - Plumbing Code of Australia

BCA Part 3.12.5.1 - Insulation of services

Requirements

Thermal insulation for central heating water piping and heating and cooling ductwork must be protected against the effects of weather and sunlight and be able to withstand the temperatures within the piping or ductwork and use thermal insulation material in accordance with AS/NZS 4859.1.

BCA Part 3.12.5.5 - Artificial lighting

Requirements

The lamp power density or illumination power density of artificial lighting, excluding heaters that emit light must not exceed in a Class 1 building - 5 W/m², Verandah or Balcony attached to a Class 1 building - 4W/m² and in a Class 10a building associated with a Class 1 building - 3 W/m².

Halogen lamps must be separately switched from fluorescent lamps.

Artificial lighting around the perimeter of a building must be controlled by a daylight sensor or have an average light source efficiency of not less than 40 Lumens/W.

BCA Part 3.12.5.6 - Water heater in a hot water supply system

Requirements

A water heater in a hot water supply system must be designed and installed in accordance with Part B2 of NCC Volume Three - Plumbing Code of Australia.

BCA Part 3.12.5.7 - Swimming pool heating and pumping

Heating for a swimming pool must be by a solar heater not boosted by electric resistance heating or a heater using reclaimed energy or a gas heater or a heat pump or combination solar heater and heat pump.

Where some or all of the heating required by a gas heater or a heat pump, the swimming pool must have a cover unless located in a conditioned space and a time switch to control the operation of the heater.

A time switch must be provided to control the operation of a circulation pump for a swimming pool.

NOTE: For the purposes of 3.12.5.7, a swimming pool does not include a spa pool.

BCA Part 3.12.5.8 - Spa pool heating and pumping

Heating for a spa pool that shares a water recirculation system with a swimming pool must be by a solar heater or a heater using reclaimed energy or a gas heater or a heat pump or a combination of a solar heater and a heat pump.

Where some or all of the heating required by a gas heater or a heat pump, the spa pool must have a cover and a push button and a time switch to control the operation of the heater.

A time switch must be provided to control the operation of a circulation pump for a spa pool having a capacity of 680 L or more.

REPORT SUMMARY

Total R-Value of Roof Insulation	Minimum R4.71 Insulation
Total R-Value of External Wall Insulation	Minimum R1.89 Insulation for Hebel walling system only Minimum R0.63 Insulation for 75mm Rendapanel veneer system only Minimum R2.39 Insulation plus Vapour permeable membrane for Scyon Matrix walling system only
Total R-Value of Internal Wall Insulation	Minimum R1.95 Insulation (dividing wall between Garage & Dwelling only)
Total R-Value of Party Wall Insulation	Minimum R2.0 Insulation (both sides as per manufacturers requirements)
Total R-Value of Suspended Floor Insulation	Minimum R0.61 Insulation
Glazing	Single Glazed - All Glazing Refer to glazing calculator (attached) for specific Total System U - Value & Total System SHGC NOTE: Glazing based on Southern Star proprietary systems
Downlights	IC rated (if applicable)
Lighting maximum wattage /m2	5 W/m2 Dwelling Internally 4 W/m2 Porch/Alfresco 3 W/m2 Garage

Notes:

1. The Hebel PowerPanel External Wall System shall be constructed in strict accordance with 'Houses and Low Rise Multi Residential PowerPanel External Walls - Design and Installation Guide'.
2. Unitex External Cladding System shall be constructed in strict accordance with 'Technical Manual - Unitex Base Board System' dated June 2015
3. The Scyon Matrix Cladding System shall be constructed in strict accordance with 'Technical Supplement' prepared by James Hardie
4. All details regarding Boral Partiwall System (Type 25TP1010A) shall be in strict accordance with manufacturers requirements. Insulation nominated by Boral Partiwall System (Type 25TP1010A) which exceeds this energy report shall take precedence.
5. All glazing nominated in Report Summary shall be in strict accordance with AS 1288 and AS 2047.

Disclaimer:

1. All items contained in this report directly correlate to the National Construction Code Series 2016 - Volume Two. As such, this company shall take no responsibility regarding the accuracy of this report and the National Construction Code Series 2016 - Volume Two shall be used as a reference at all times.
All Insulation, Glazing (refer to NCC VOLUME TWO GLAZING CALCULATOR for specific Total System U & Total System SHGC values) and other requirements nominated in the REPORT SUMMARY shall be strictly adhered to otherwise this office shall not accept any liability.
The installation and construction of materials to achieve the requirements of this report shall be performed in strict accordance with the manufacturers specifications and relevant Australian Standards. As such, this office shall not be responsible for any reduced performance caused by either poor installation and/or defective workmanship.
Any discrepancies on site which directly effect the overall performance and nominated energy rating shall be brought to the attention of this office immediately. An amended energy assessment may be required.
This energy compliance report is based entirely on the documentation stamped by this office. Any alterations to the design may alter the energy efficiency compliance of the dwelling or addition and as such, an amended energy compliance report shall be required.
2. This is not a structural report. All assumptions and recommendations made within this report are for energy efficiency purposes only and should be verified by a suitably qualified structural expert as required.

NCC VOLUME TWO GLAZING CALCULATOR

Site Address / Details

Lower Level - Dwelling 5 @ No.541 Anzac Highway, Glenelg North, SA

Climate Zone
5

Constants C_U C_{SHGC}
13.464 0.1267

Floor Construction	Area
Direct Contact	58.40m ²
Suspended	
Total Area	58.40m ²

Wall Insulation Option chosen for 3.12.1.4
No wall insulation concession used

Actual Conductance	9.32	Compliant
Actual Solar Heat Gain	5.71	Compliant



Allowances $C_u(\text{only})$ $C_U \times \text{Area}$ $C_{SHGC} \times \text{Area}$
13.50 786.30 7.40

Name	Orientation	Height (m)	Width (m)	Area (m ²)	Habitable	% Open Ability	Total System U-Value	Total System SHGC	P Winter	H Winter	P Summer	H Summer	Ew	Es	Conductance	Solar Heat Gain	U Element share of % Allowance Used	SHGC Element share of % Allowance Used
Study	N	1.40	1.50	2.10m ²	Yes	0%	6.11	0.75	0.35	1.70			1.63	0.51	1.36	0.80	15% of 69%	14% of 77%
Study	N	0.70	1.50	1.05m ²	Yes	90%	6.23	0.66	0.35	2.40			1.95	0.66	0.69	0.05	7% of 69%	1% of 77%
Study	E	1.40	1.50	2.10m ²	Yes	0%	6.11	0.75	0.35	1.70			0.59	0.88	1.36	1.39	15% of 69%	24% of 77%
Study	E	0.70	1.50	1.05m ²	Yes	90%	6.23	0.66	0.35	2.40			0.68	1.04	0.69	0.07	7% of 69%	1% of 77%
Entry	E	0.30	0.90	0.27m ²	No	0%	6.11	0.75	1.40	0.30			0.15	0.24	0.18	0.05	2% of 69%	1% of 77%
Dine	W	2.40	2.70	6.48m ²	Yes	45%	6.11	0.75	0.50	2.80			0.69	1.02	4.20	2.72	45% of 69%	48% of 77%
Cook	W	0.70	0.90	0.63m ²	Yes	90%	6.23	0.66					0.85	1.30	0.42	0.05	4% of 69%	1% of 77%
Cook	W	0.70	0.90	0.63m ²	Yes	0%	6.11	0.75	0.10	1.90			0.81	1.24	0.41	0.59	4% of 69%	10% of 77%

NCC VOLUME TWO GLAZING CALCULATOR

Site Address / Details

Dwelling 5 @ No.541 Anzac Highway, Glenelg North, SA

Climate
Zone
5

Constants
C_U 12.118
C_{SHGC} 0.1150

Floor Construction	Area
Direct Contact	
Suspended	55.30m ²
Total Area	55.30m ²

Wall Insulation Option chosen for 3.12.1.4
No wall insulation concession used

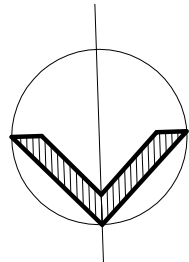
Actual Conductance	6.92	Compliant
Actual Solar Heat Gain	4.10	Compliant



Allowances
C_u(only) 12.10
C_U X Area 670.13
C_{SHGC} X Area 6.36

Name	Orientation	Height (m)	Width (m)	Area (m ²)	Habitable	% Open Ability	Total System U-Value	Total System SHGC	P Winter	H Winter	P Summer	H Summer	Ew	Es	Conductance	Solar Heat Gain	U Element share of % Allowance Used	SHGC Element share of % Allowance Used
Bed 2	E	0.70	1.50	1.05m ²	Yes	90%	6.23	0.66	0.25	0.90			0.55	0.82	0.39	0.06	6% of 57%	1% of 65%
Bed 2	E	1.40	1.50	2.10m ²	Yes	90%	6.23	0.66	0.25	2.30			0.70	1.06	0.78	0.15	11% of 57%	4% of 65%
Bed 2	E	2.10	1.80	3.78m ²	Yes	90%	6.23	0.66	0.25	2.10			0.65	0.99	1.41	0.25	20% of 57%	6% of 65%
Bed 1	W	0.75	1.80	1.35m ²	Yes	90%	6.23	0.66	0.45	1.55			0.71	1.06	0.50	0.09	7% of 57%	2% of 65%
Bed 1	W	0.75	1.80	1.35m ²	Yes	90%	6.23	0.66	0.45	2.30			0.75	1.11	0.50	0.10	7% of 57%	2% of 65%
Ensuite	N	0.60	0.90	0.54m ²	No	90%	6.23	0.66	0.45	1.40			1.76	0.56	0.20	0.02	3% of 57%	0% of 65%
Ensuite	N	1.20	0.90	1.08m ²	No	0%	6.11	0.75	0.45	2.60			1.95	0.65	0.39	0.52	6% of 57%	13% of 65%
Staircase	N	1.80	1.50	2.70m ²	No	0%	6.11	0.75	0.45	2.60			1.95	0.65	0.99	1.31	14% of 57%	32% of 65%
Ensuite	N	0.60	0.90	0.54m ²	No	90%	6.23	0.66	0.45	1.40			1.76	0.56	0.20	0.02	3% of 57%	0% of 65%
Ensuite	N	1.20	0.90	1.08m ²	No	0%	6.11	0.75	0.45	2.60			1.95	0.65	0.39	0.52	6% of 57%	13% of 65%
Bed 2	N	0.70	1.50	1.05m ²	Yes	90%	6.23	0.66	0.35	0.90			1.50	0.40	0.39	0.03	6% of 57%	1% of 65%
Bed 2	N	1.40	1.50	2.10m ²	Yes	0%	6.11	0.75	0.35	2.30			1.95	0.66	0.77	1.04	11% of 57%	25% of 65%

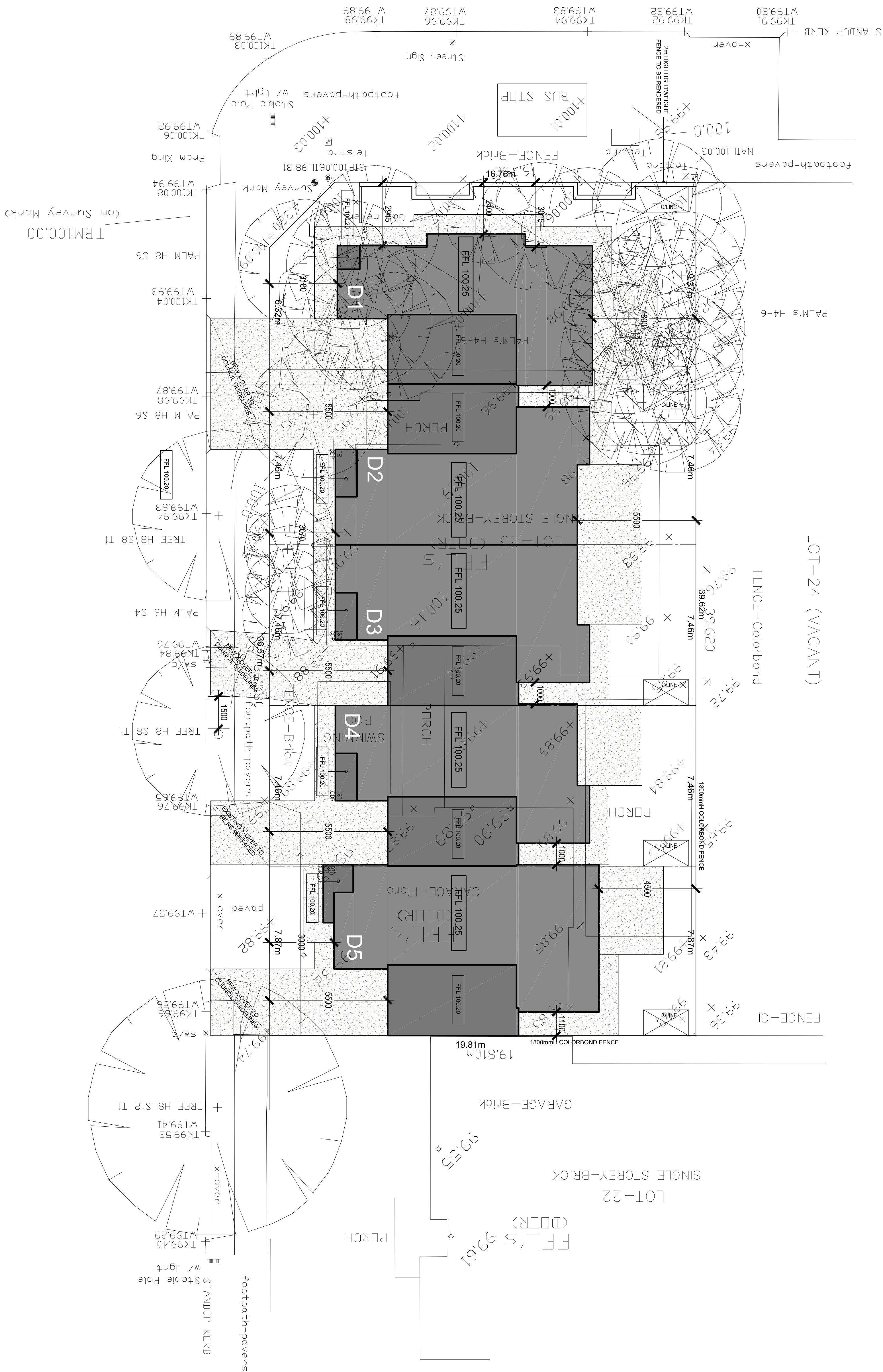
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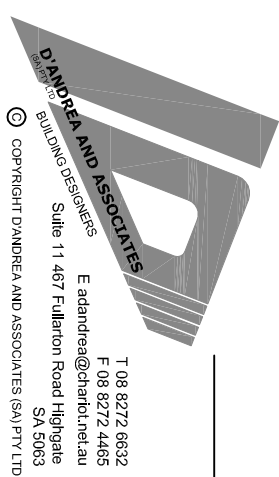
SITE PLAN

DWELLINGS 1-5 SCALE 1:100

REFER TO ENGINEER'S SITE WORKS
AND DRAINAGE PLAN FOR ALL SITE
WORKS AND DRAINAGE



DOUGLAS GROVE



**5 TWO STOREY DWELLINGS
AT 541 ANZAC HWY GLENELG EAST
FOR: WP PROPERTY GROUP**

ALL DIMENSIONS AND LEVELS TO BE CONFIRMED PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCY TO BE REPORTED TO THIS OFFICE IMMEDIATELY.

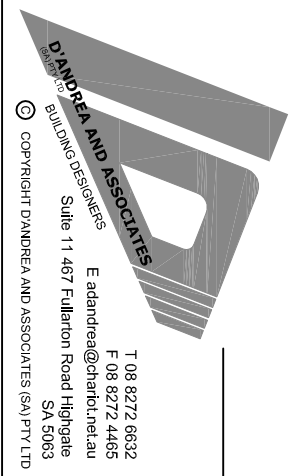
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DATE:	SCALE:

AMENDMENTS:		
ISSUE DATE	REVISION	COMMENTS

SITE PLAN

A - 06

NOT FOR CONSTRUCTION



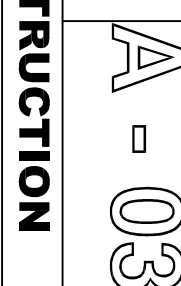
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ISSUE DATE	REVISION	COMMENTS
16-05-2018	A	ERR WINDOW AMENDMENTS

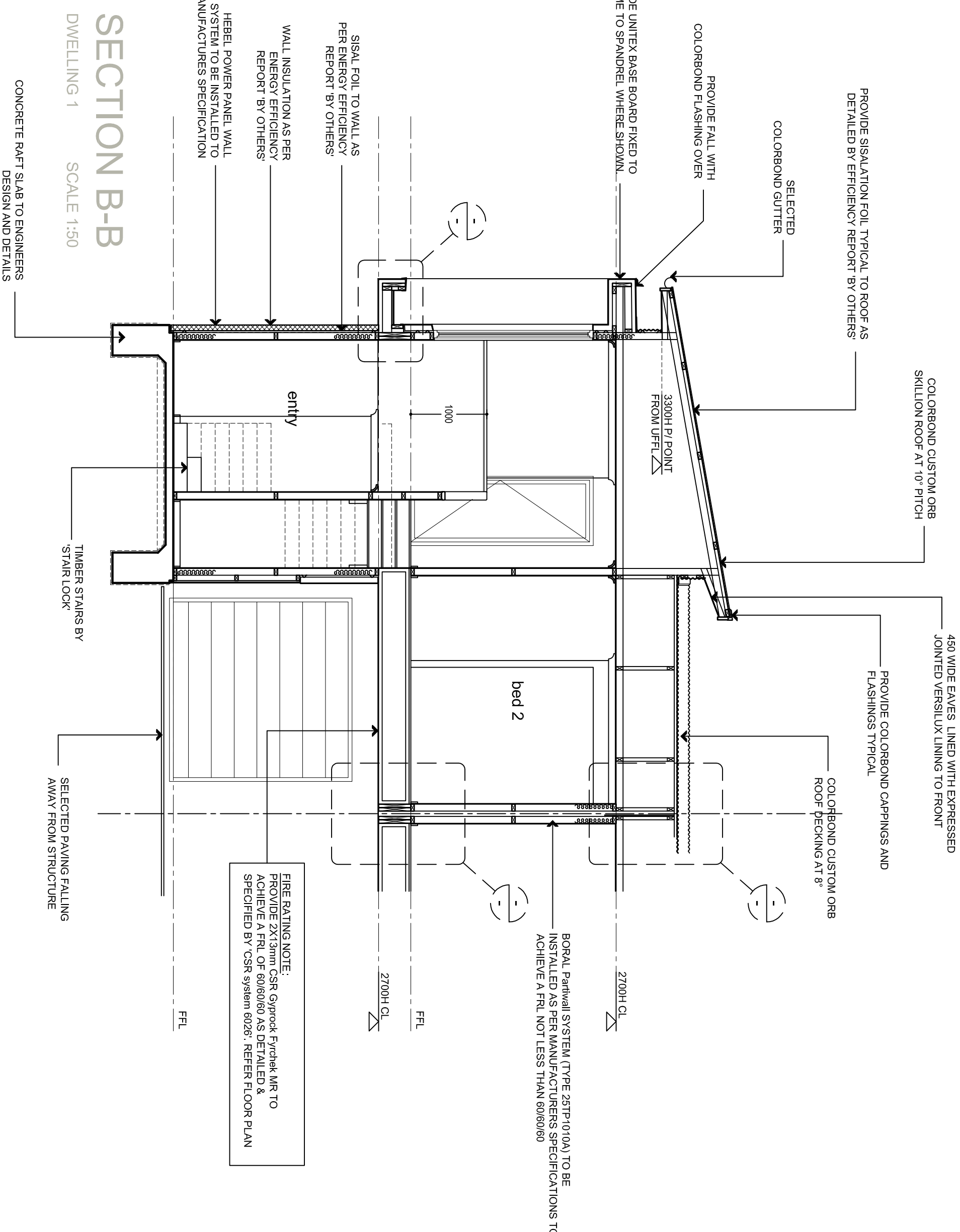
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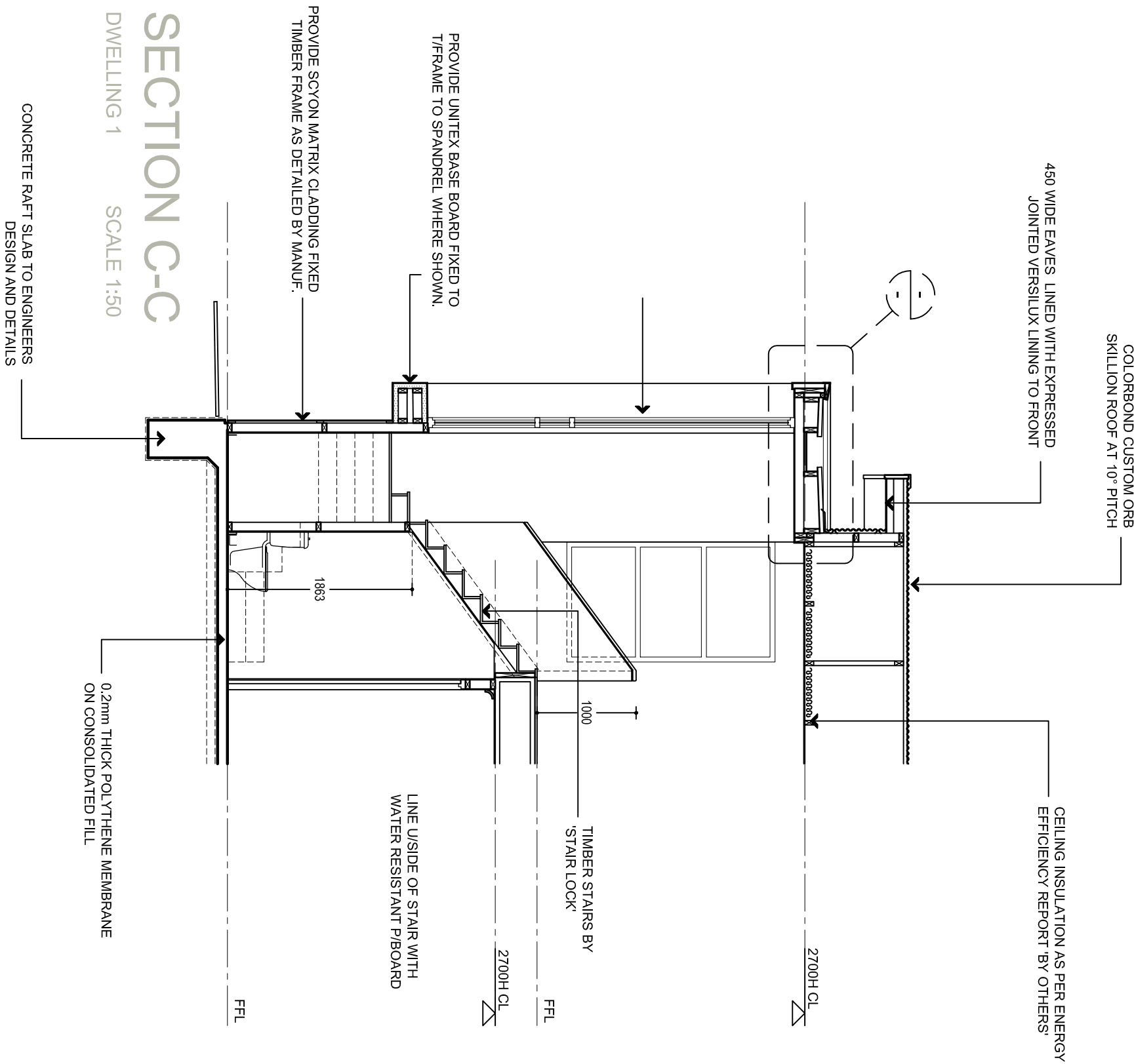
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HV	HEBEL VENTURE CONSTRUCTION (N.O.) (190TH O.A.)
SM	90mm TYPRAPE CLAD WITH SECTION MATRIX (190TH O.A.) (N.O.)
SM1	90mm x 70mm STUD CLAD WITH SECTION MATRIX (190TH)
UBB	FIXED-TWO UNIT/TYPE BASE BOARD, RENEA PANEL: FURNITURE (190TH O.A.)
AL	DENOTES SELECTED FIXED ALUMINUM (COVERS)
CO	DENOTES HORIZONTAL CLAD COLORBOND CUSTOM ORN FIXED TO TIMBER FRAME VIA TOP-H
FN	SELECTED PRODUCT/MATERIALS TO BE INSTALLED IN ACCORDANCE WITH MANUF. SPECIFICATION
FINISH LEGEND	
GG - DENOTES FIXED GLASS	



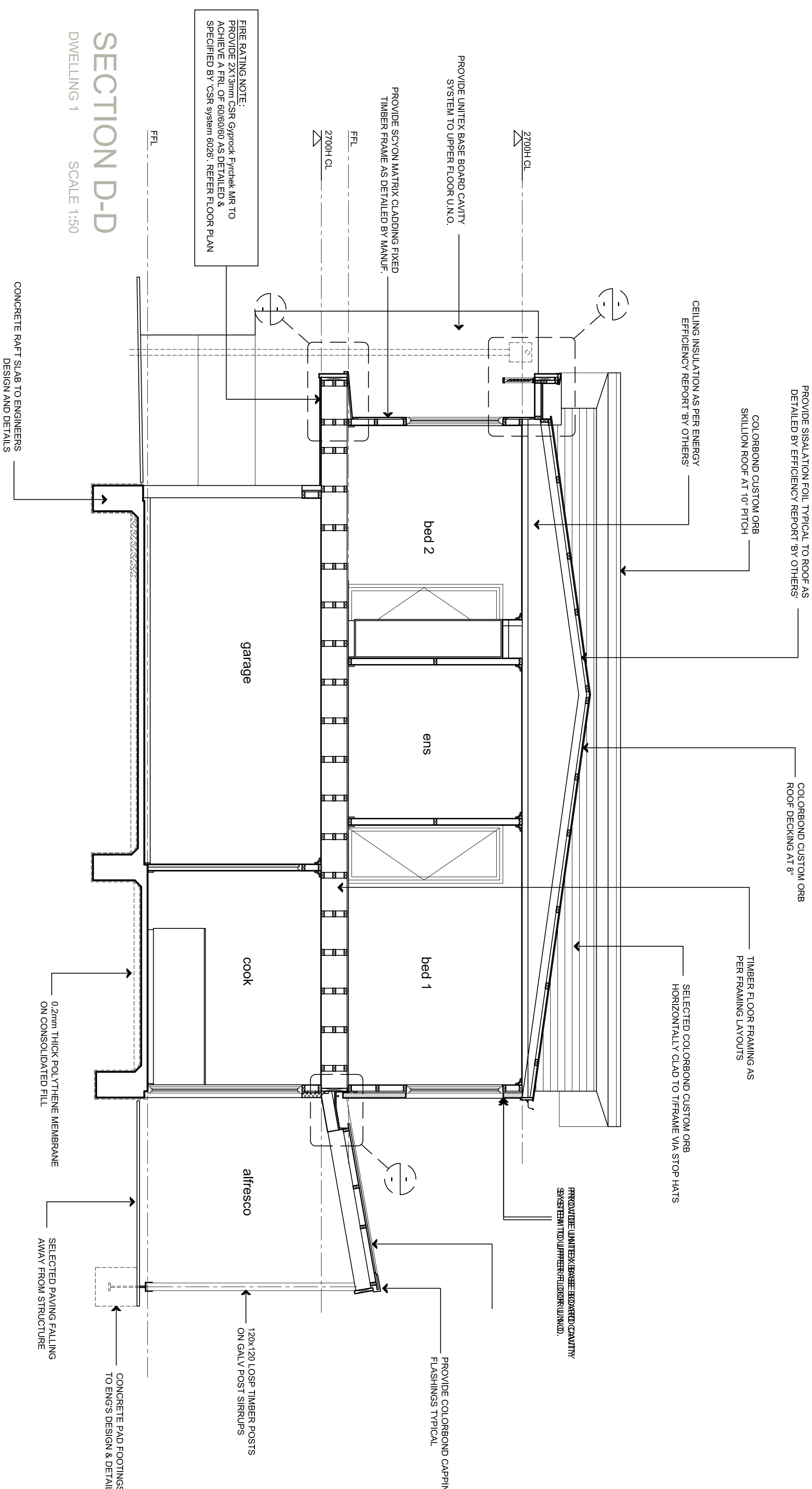
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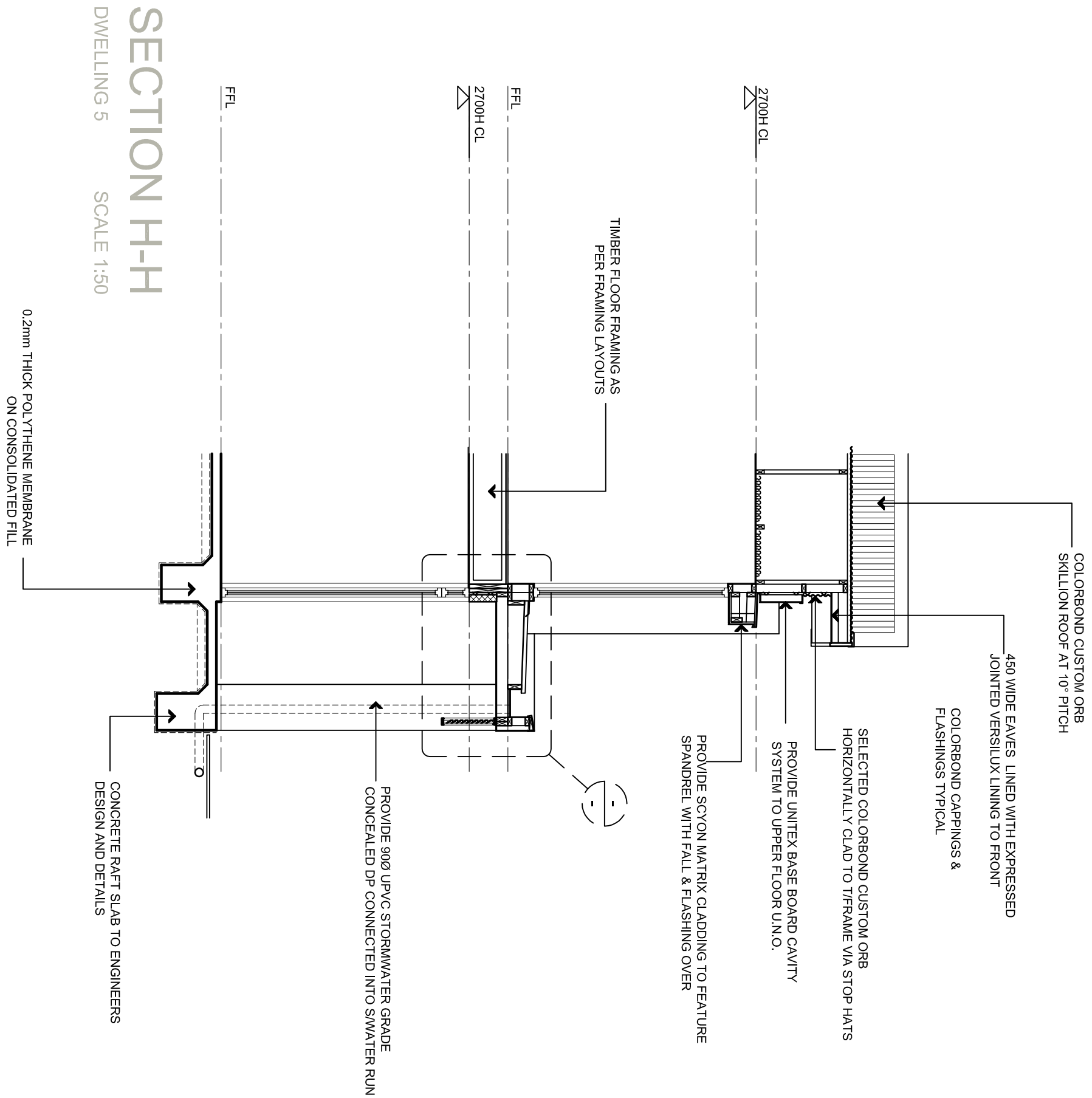
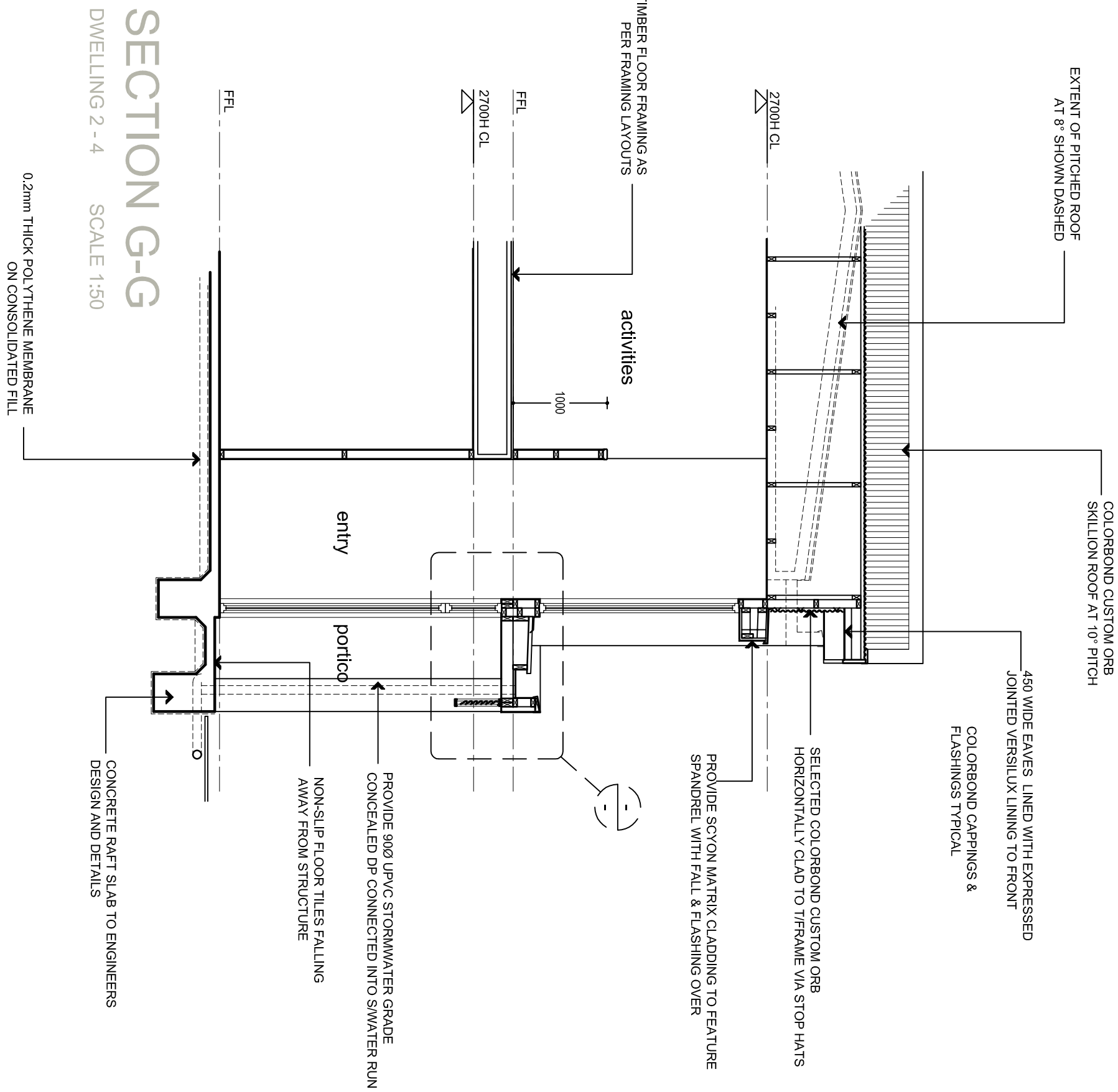
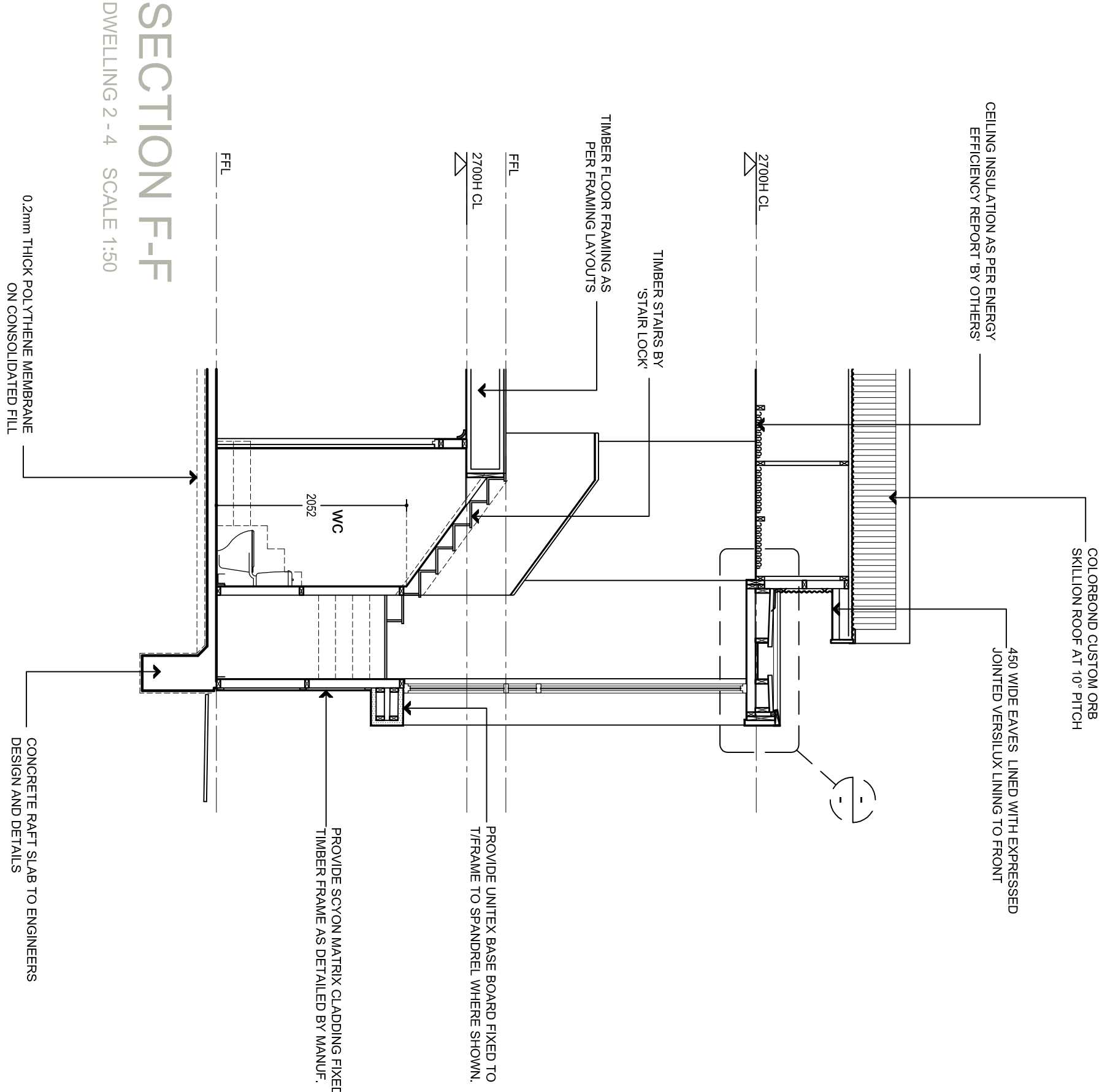
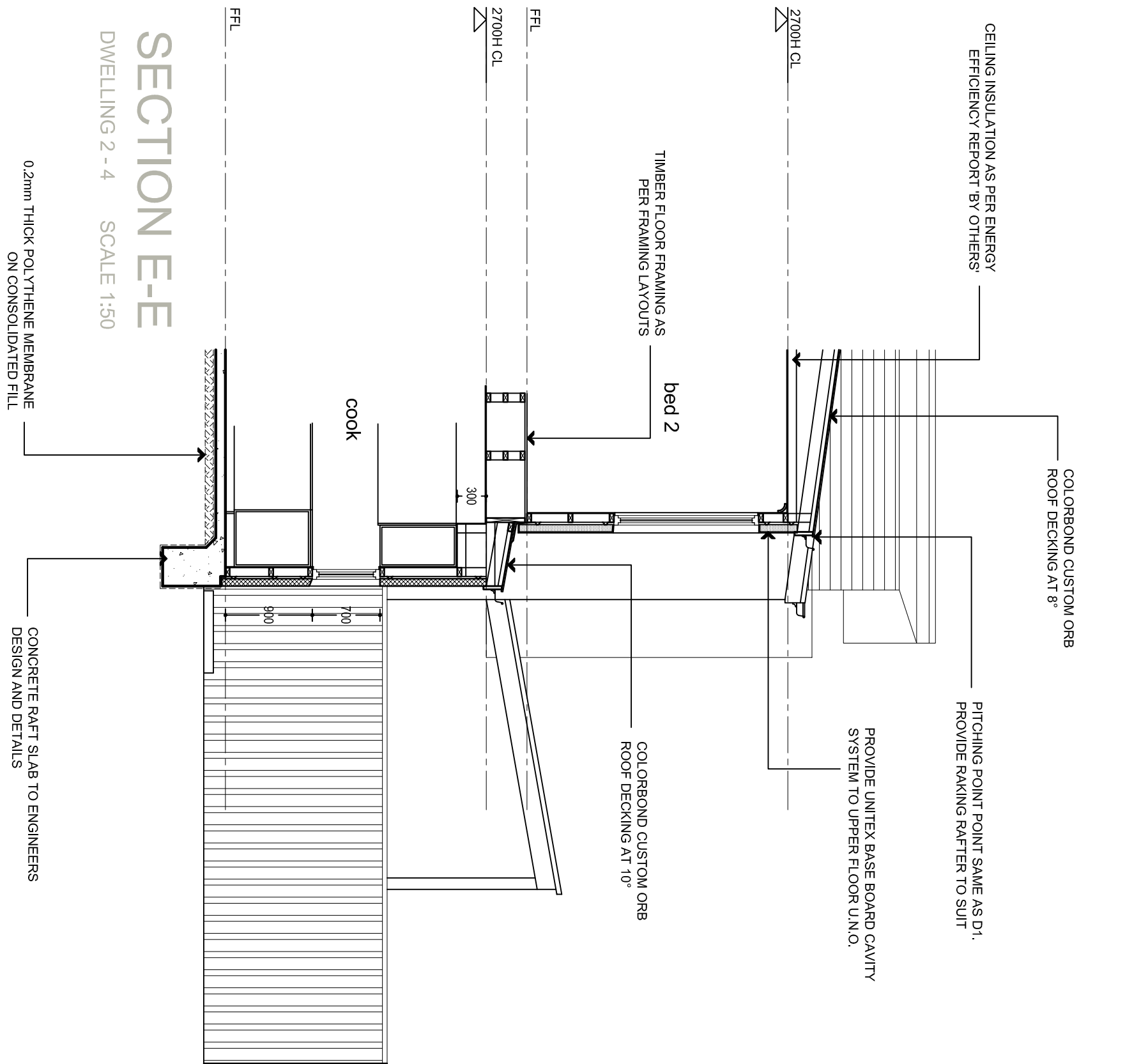
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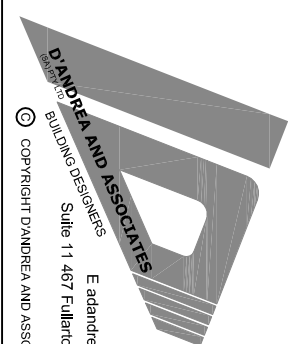


DWELLING 1 SCALE 1:50









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Scale 1:400 (Reflected Roof Height)
SA 5063
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**5 TWO STOREY DWELLINGS
AT 541 ANZAC HWY GLENELG EAST
FOR: WP PROPERTY GROUP**

ARCHITECTURAL DRAWINGS TO BE
READ IN CONNECTION WITH
SPECIFICATION, SECTION & BDA
ALL DIMENSIONS AND LEVELS TO BE
CONFERRED PRIOR TO THE
CONSTRUCTION OF THE WORK
DISCREPANCY TO BE REPORTED TO
THE OTHERS IMMEDIATELY

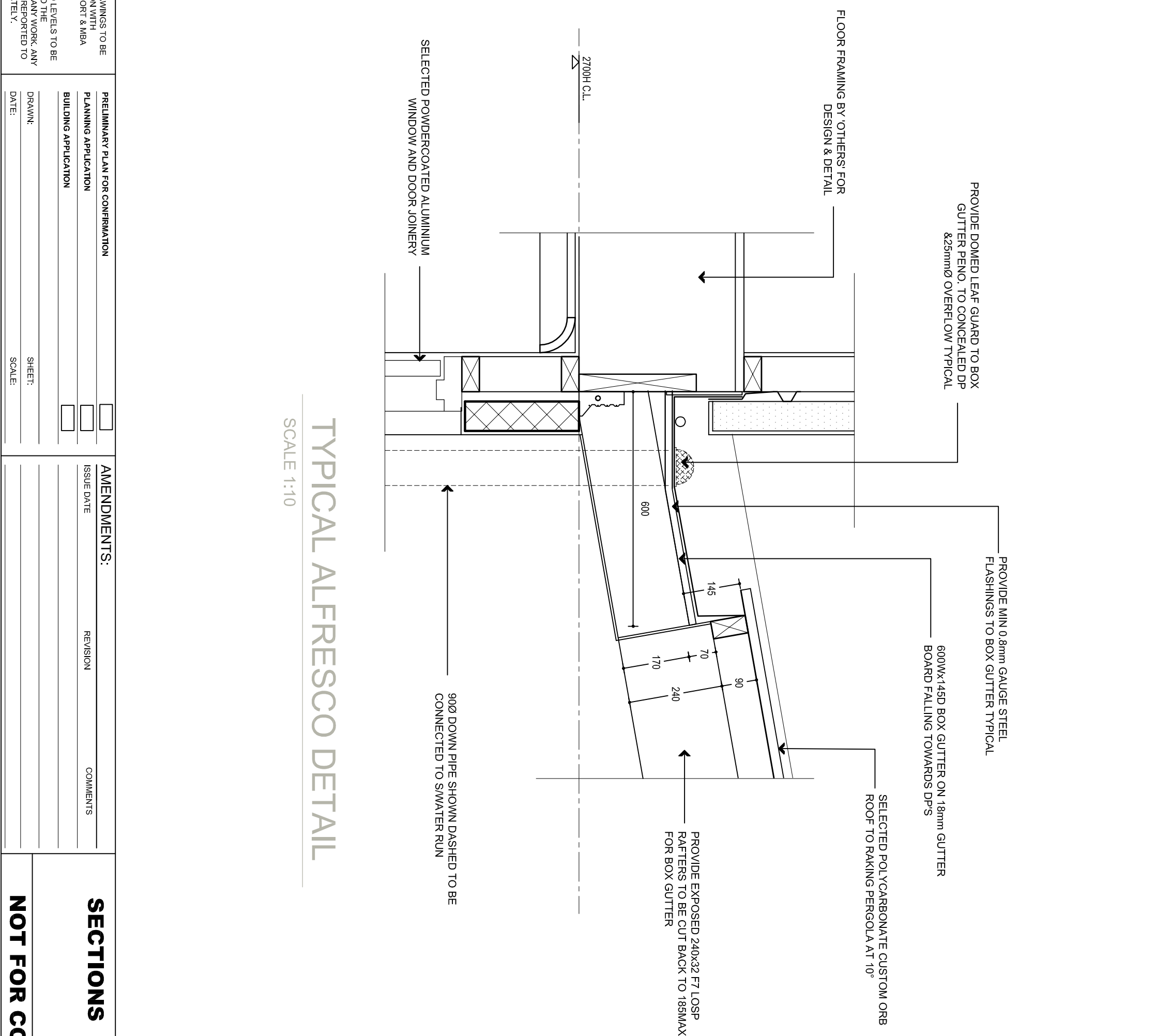
PRELIMINARY PLAN FOR CONSTRUCTION		
PLANNING APPLICATION	<input type="checkbox"/>	
BUILDING APPLICATION	<input type="checkbox"/>	
DESIGN	<input type="checkbox"/>	
DATES	<input type="checkbox"/>	
SHEET	<input type="checkbox"/>	
SCALE	<input type="checkbox"/>	

AMENDMENTS:		
ISSUE DATE	REVISION	COMMENTS

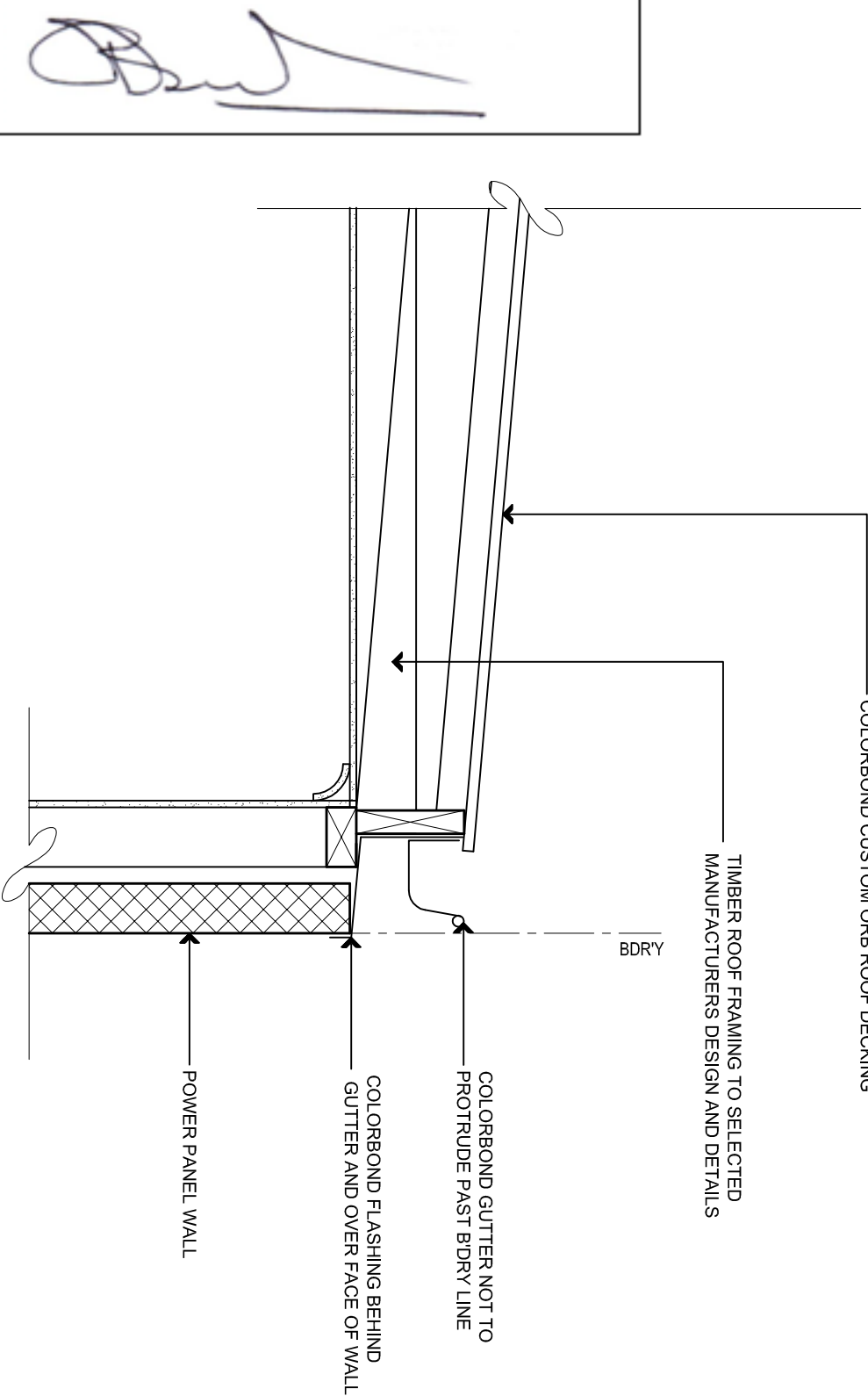
SECTIONS

A - 04

NOT FOR CONSTRUCTION

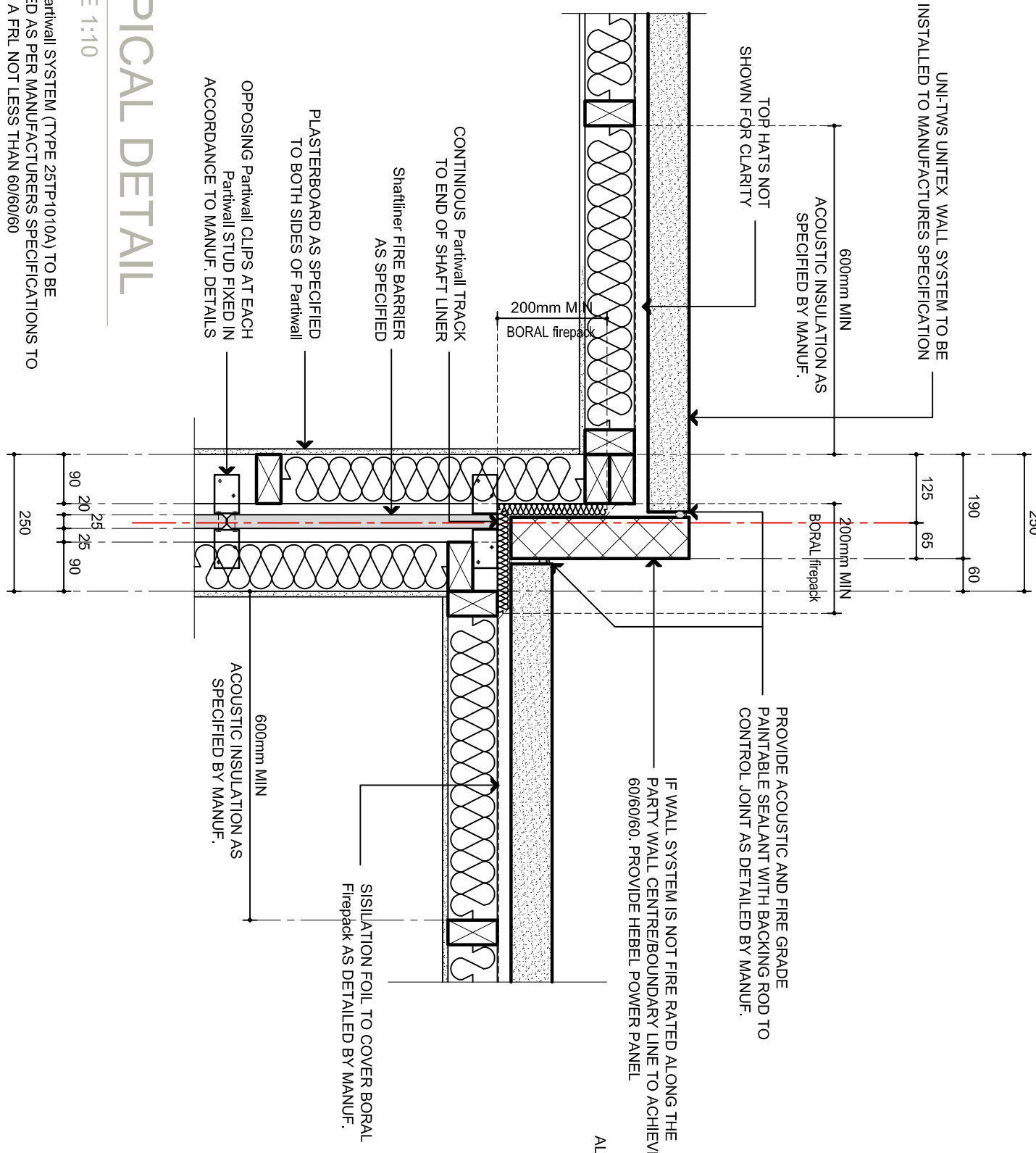


SCALE 1:10



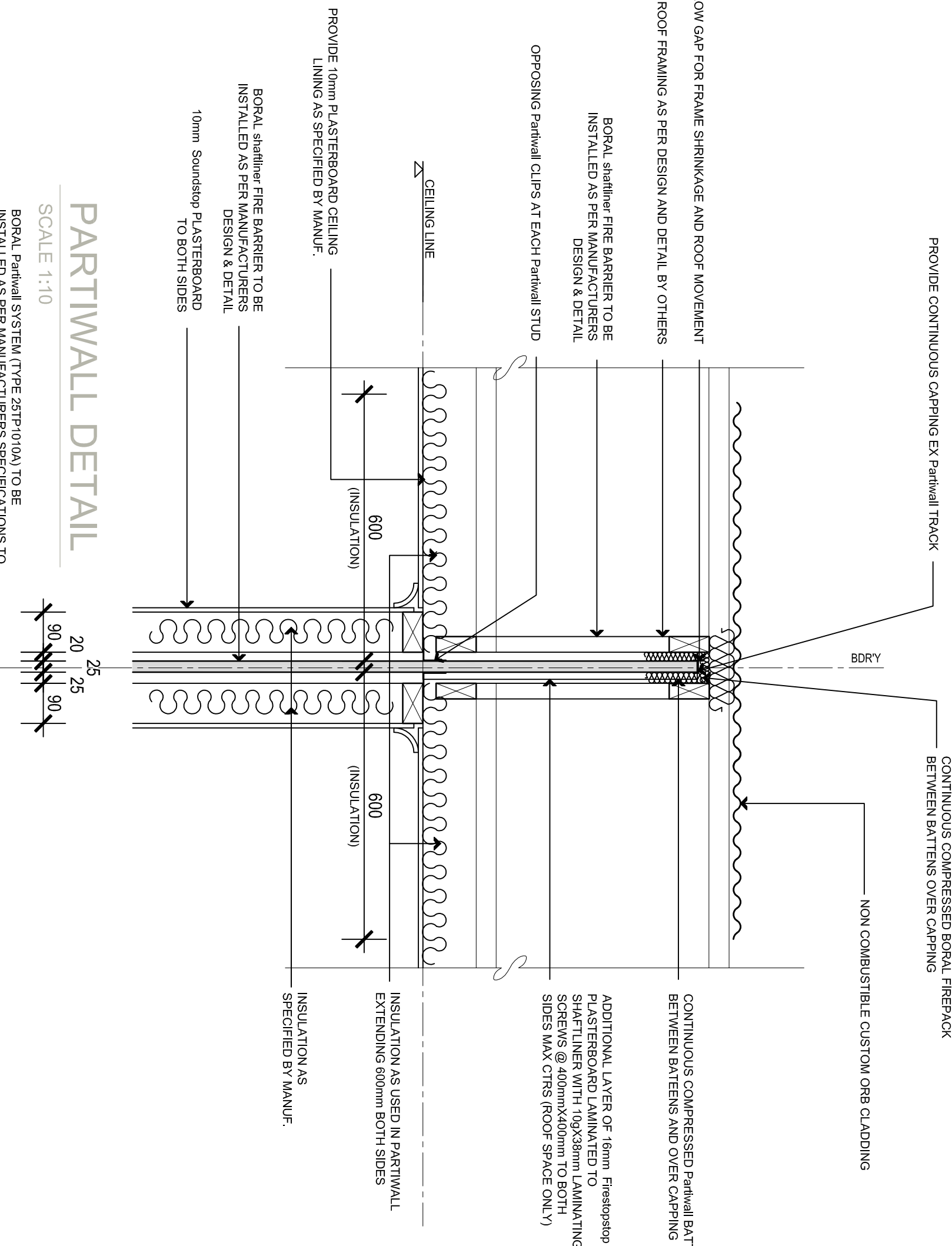
SCALE 1:10

BORAL Partwall SYSTEM (TYPE 25TP1010A) TO BE
INSTALLED AS PER MANUFACTURERS SPECIFICATIONS TO
ACHIEVE A FRL NOT LESS THAN 60/60/60



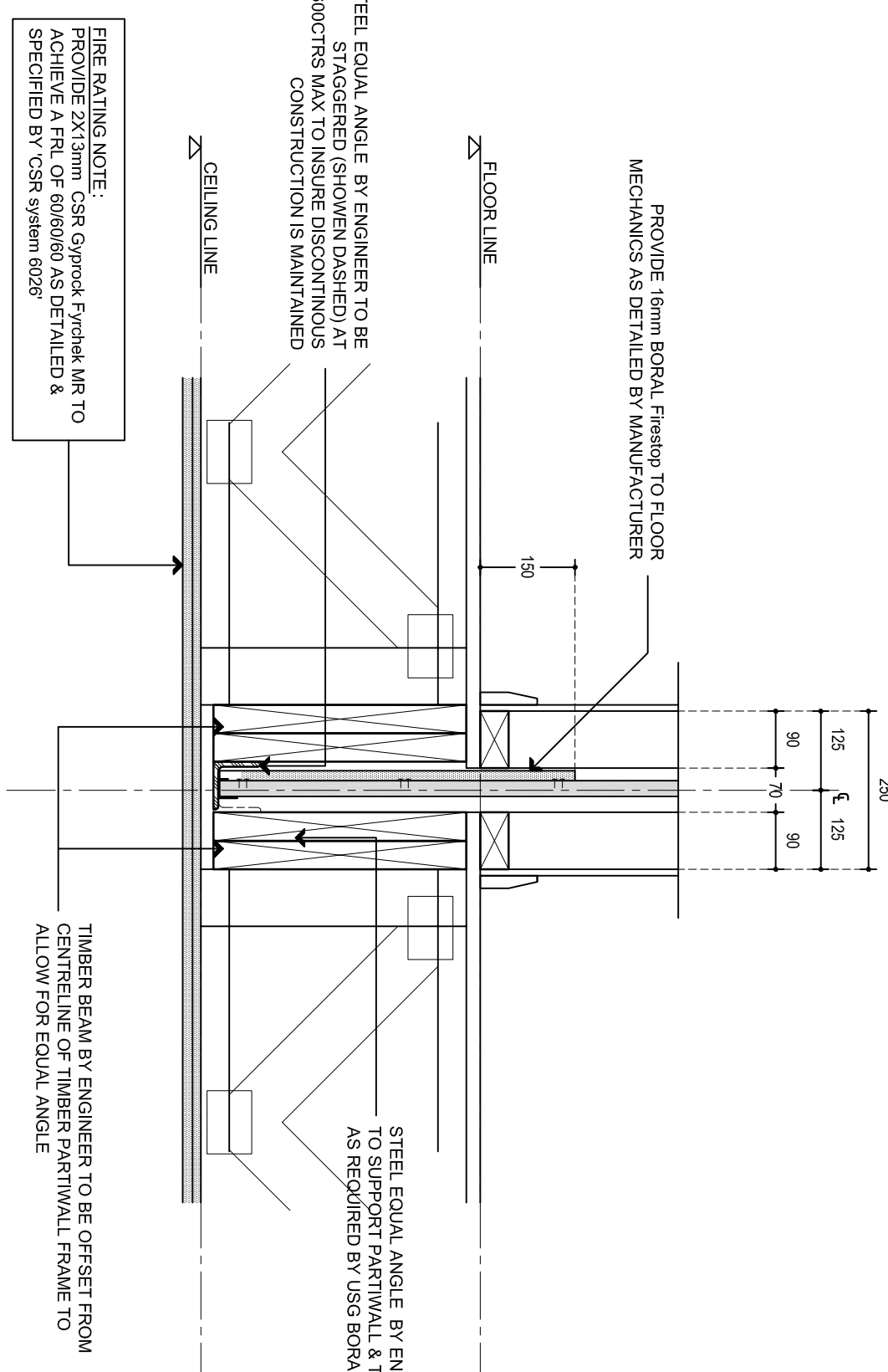
SCALE 1:10

TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS TO ACHIEVE A FIRE RATING OF 60/60/60. WHERE LENGTHS OF WALLS EXCEED 12m A FIRE RATED EXPANSION JOINT AS DETAILED BY MANUF. IS REQUIRED TO THE PLASTERBOARD AS SPECIFIED BY MANUF.



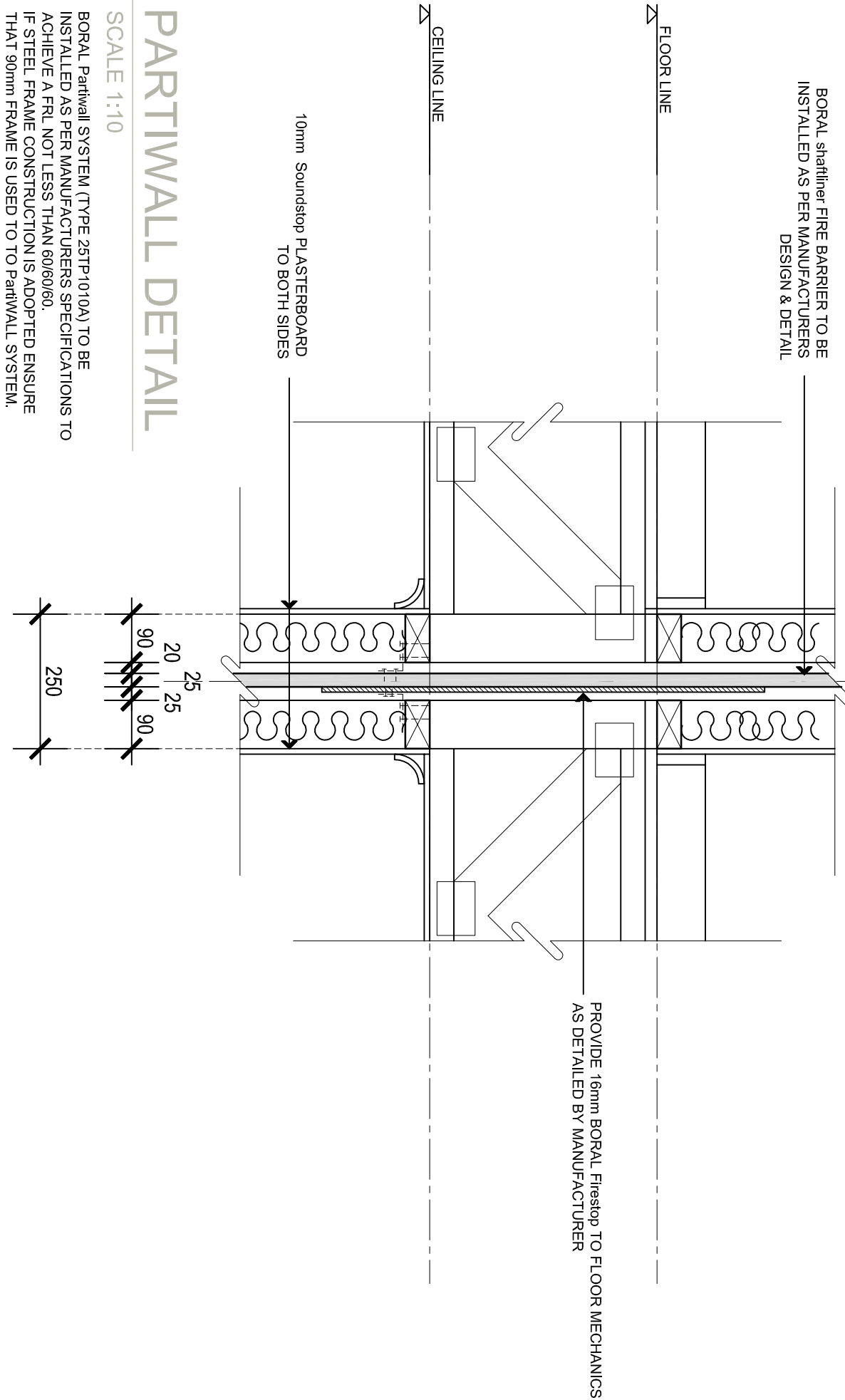
SCALE 1:10

ACHIEVE A FRL NOT LESS THAN 60/60/60



SCALE 1:10

IF STEEL FRAME CONSTRUCTION IS ADAPTED ENSURE THAT 90mm FRAME IS USED TO ADAPT SYSTEM. CONTACT BORAL FOR ALTERNATIVE CLIP FIXING DETAIL.



5 TWO STOREY DWELLINGS

AT 541 ANZAC HWY GLENELG EAST
FOR: WP PROPERTY GROUP

PRELIMINARY PLAN FOR CONFIRMATION	<input type="checkbox"/>
PLANNING APPLICATION	<input type="checkbox"/>
BUILDING APPLICATION	<input type="checkbox"/>
DRAWN:	SHEET:
DATE:	SCALE:

AMENDMENTS:		
ISSUE DATE	REVISION	COMMENTS

SECTION DETAILS

A - 05