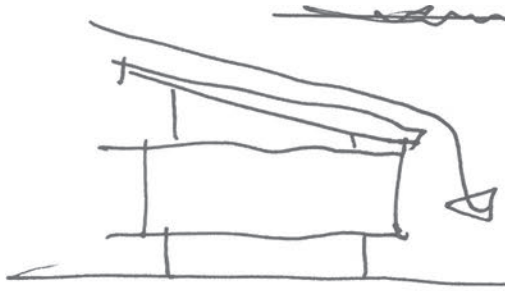




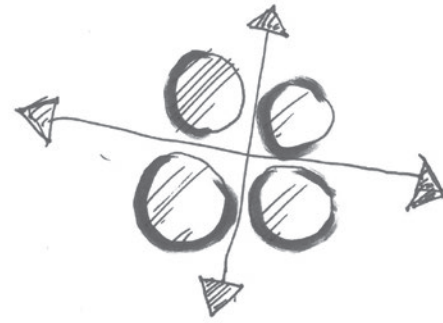
PART 9

DESIGN DETAIL

9.1 A HOUSE OF THE WOODS- SUMMARY OF KEY DESIGN ELEMENTS



Rainwater Harvest



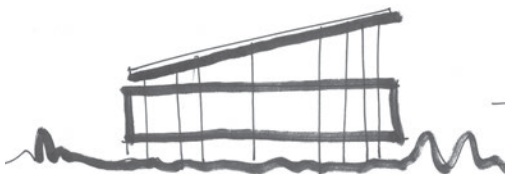
Visual permeability



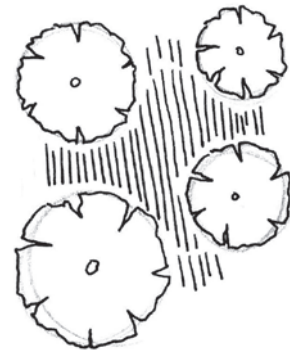
Visual Connection to tree canopy



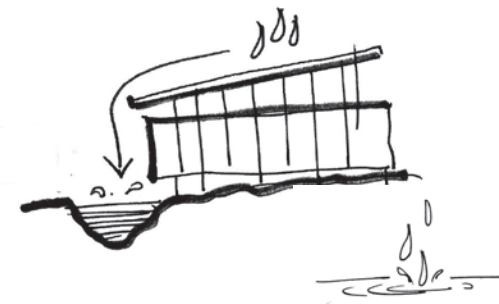
Materials that respond to the site



Sitting Lightly Upon the landscape



Create an architectural 'glade'



Connection to water

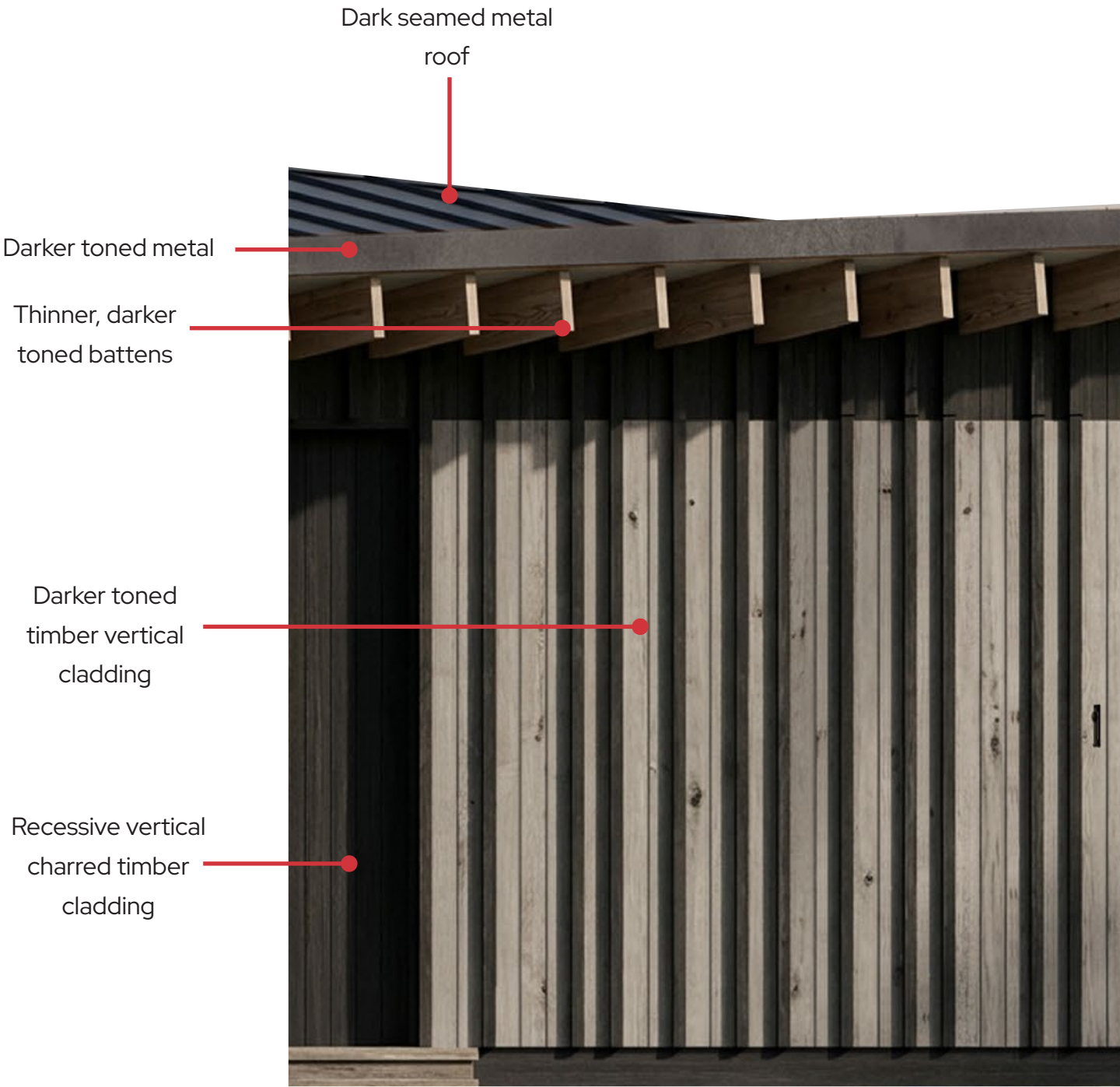


Canopy, shelter, and shade

9.2 PROPOSED MATERIAL STUDY (1 OF 2)

A simple earthy palette that resonates with the woodland

GARAGE



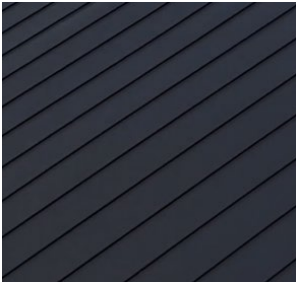
HOUSE



9.3 PROPOSED MATERIAL STUDY (2 OF 2)

A simple earthy palette that resonates with the woodland

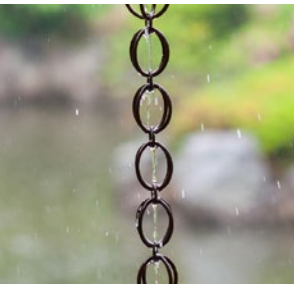
DARK SEAMED METAL
ROOF



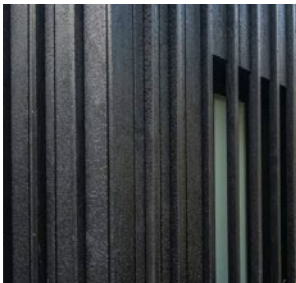
LIGHT TIMBER BATTENS



RAIN CHAIN



VERTICAL DARK CHARRED
TIMBER CLADDING



MATCHING SHADOW
GAPS/PLINTHS

NORDIC WEATHERED
COPPER METAL



COLOUR MATCHED
WINDOW FRAMES

LOUVRES



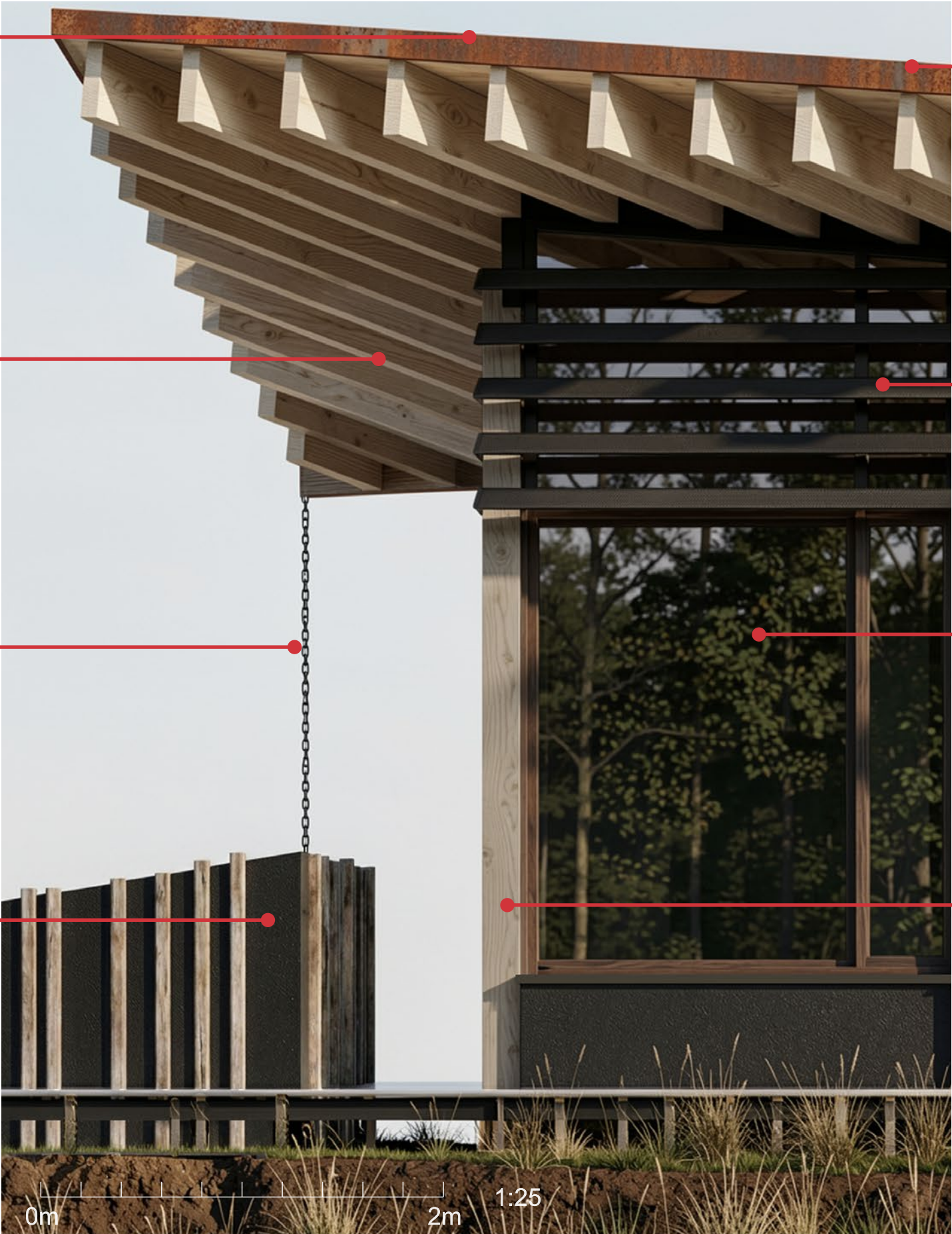
TRIPLE GLAZING



VERTICAL NATURAL TIMBER
CLADDING



Clad in a combination of
natural timber with dark
timber fins



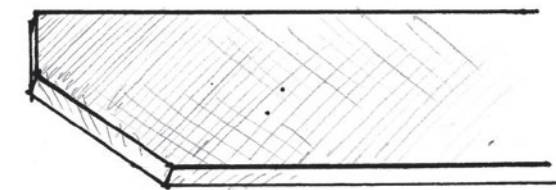
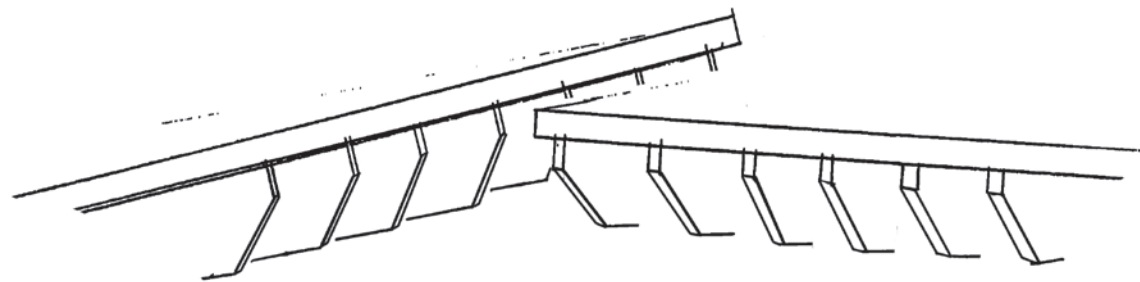
9.4 ROOF EDGE EXPRESSION & STRUCTURAL STRATEGY

Previous roof iteration

Roof structure overlaps
(and 'clashes')

Roof leading edges miss
each other.

Edges are chamfered



Size estimated by
design team

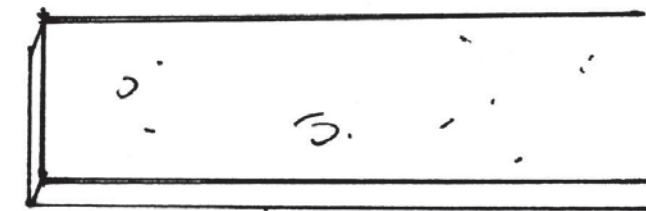
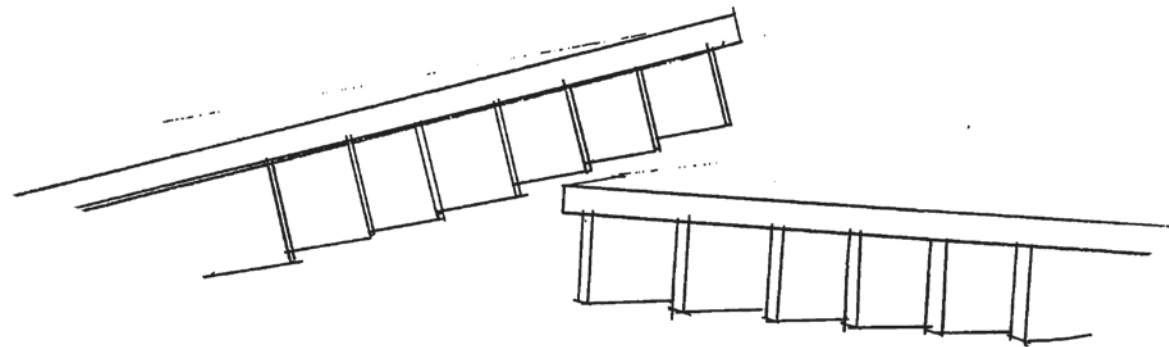
Chamfered edges

Dark stained

Revised roof

Roof structure and edges
sit closely above one
another like fallen leaves,
but do not 'clash.'

Along with a straight cut
to the edge of the butterfly
timbers and a lighter finish,
this will give a cleaner
appearance, celebrating
the roof structure.

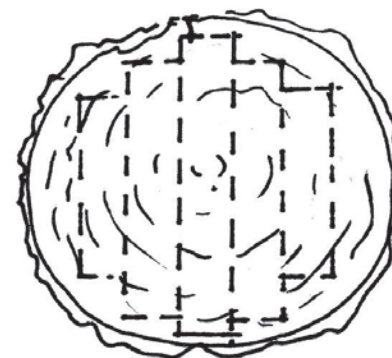
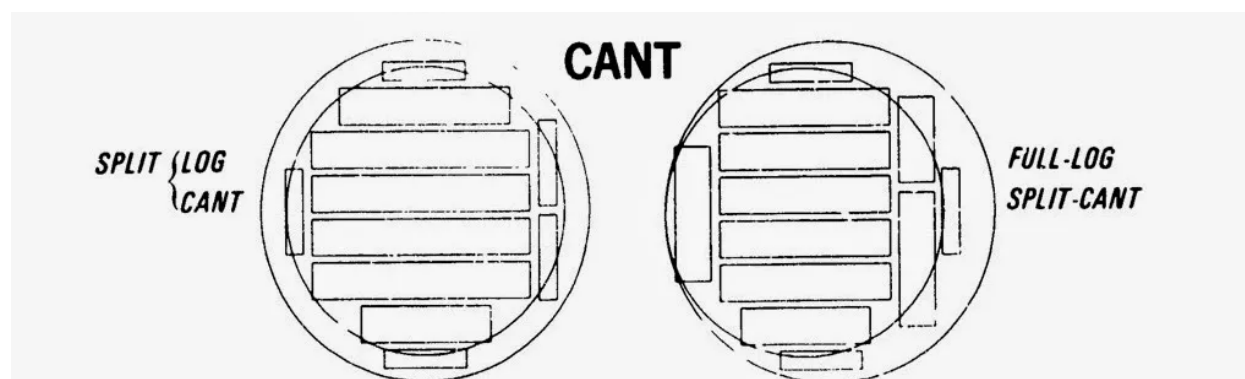


Size specified by
Engineers HRW.

Straight cut, more of
a 'raw/unprocessed'
representation of cut
timber (see below.)

Treated with a natural
finish to enhance natural
wood grain.

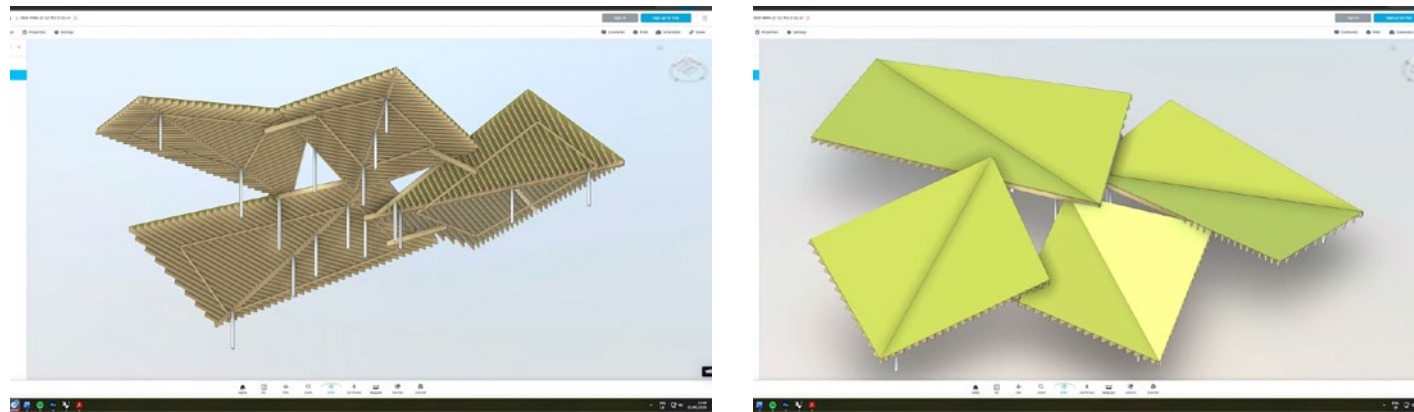
CANT SAWING



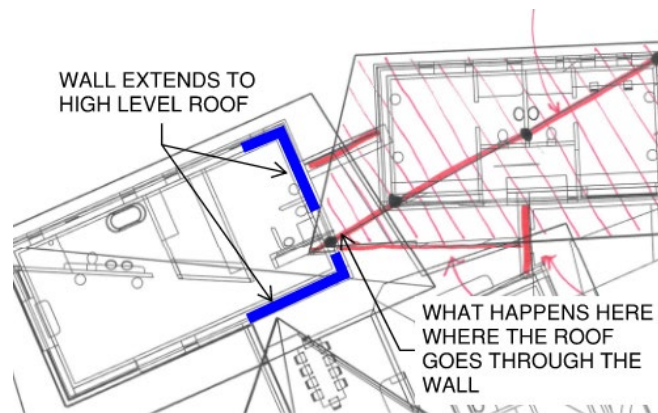
Cant Sawing diagram from the 1976 US Forest
Products Laboratory Publication.

9.5 STRUCTURAL STRATEGY DEVELOPMENT WITH ENGINEERS HRW (1 OF 2)

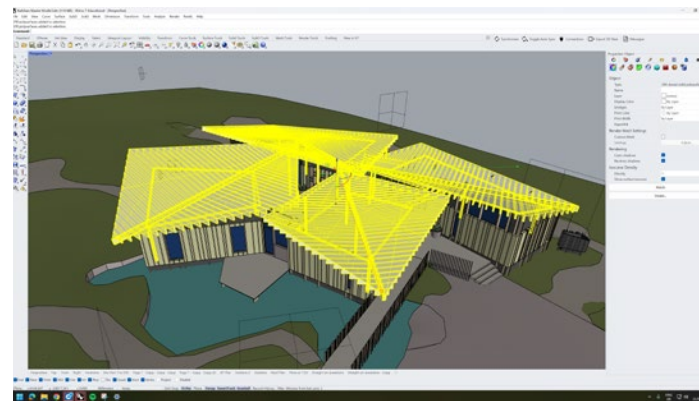
Below are screen shots and drawings from our meetings with Engineers HRW to collaborate on the roof structure. The brief to HRW was to create a proof of concept with the roof structure, sizing all the key primary and secondary structure, and ensuring that load paths could be brought down within existing walls.



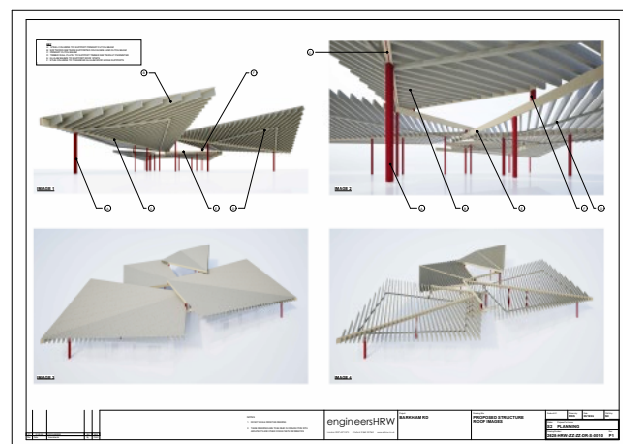
HRW Revit Model in progress



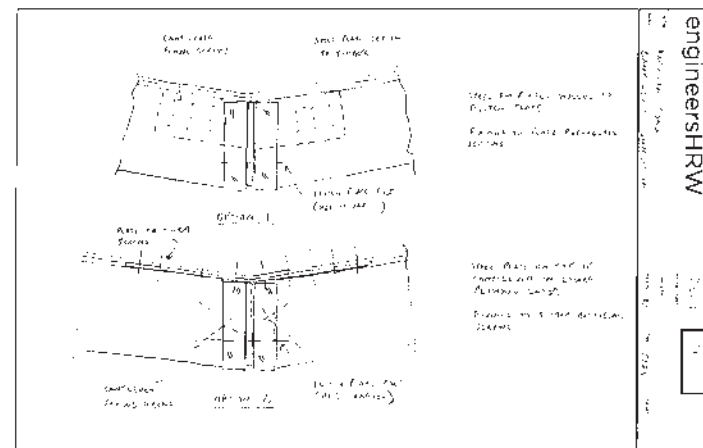
HRW mark up from early in the development process



Integrating HRW designed structure back into our Rhino model.

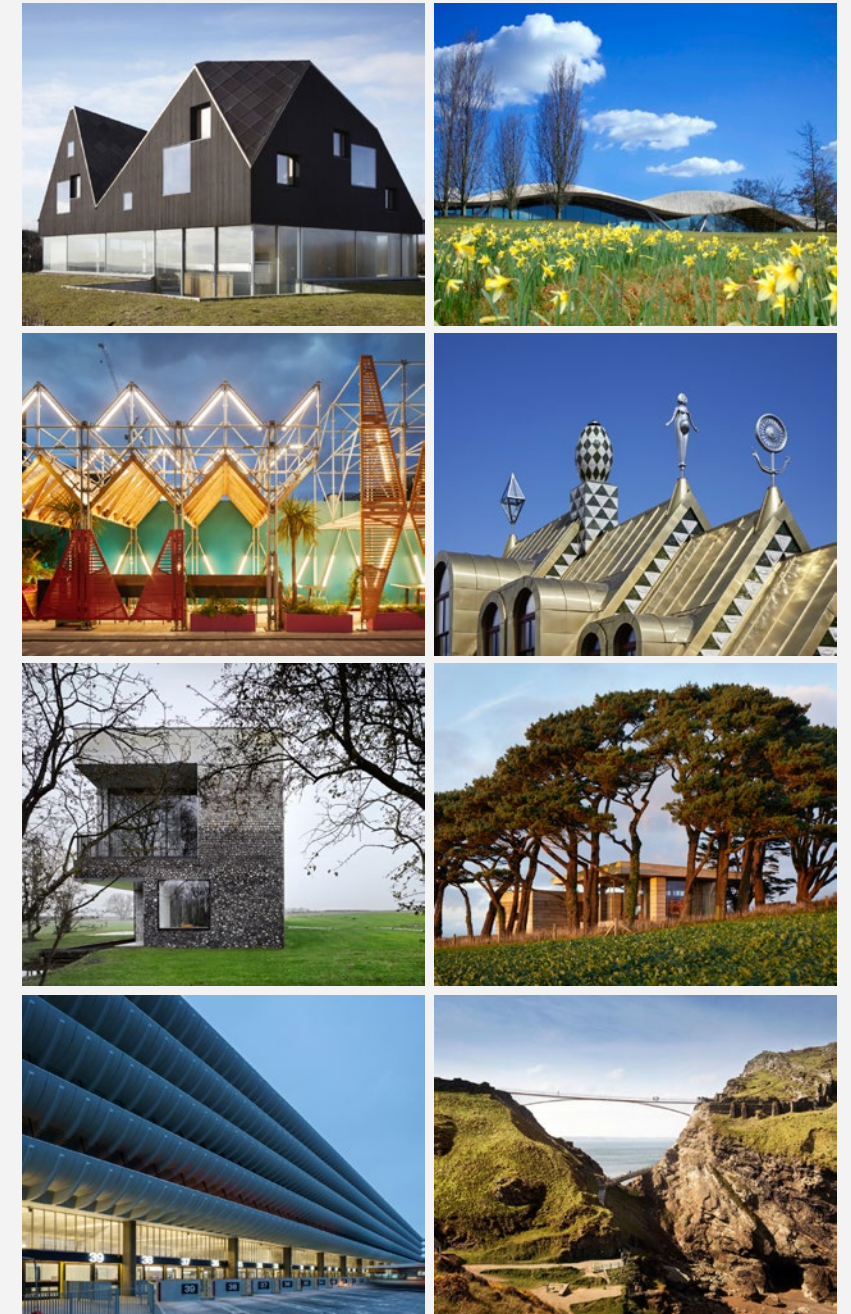


HRW development drawing showing 3D model of structural strategy



HRW sketch showing connection between central fitch plate 'spine' and timber 'wings'

Projects by HRW

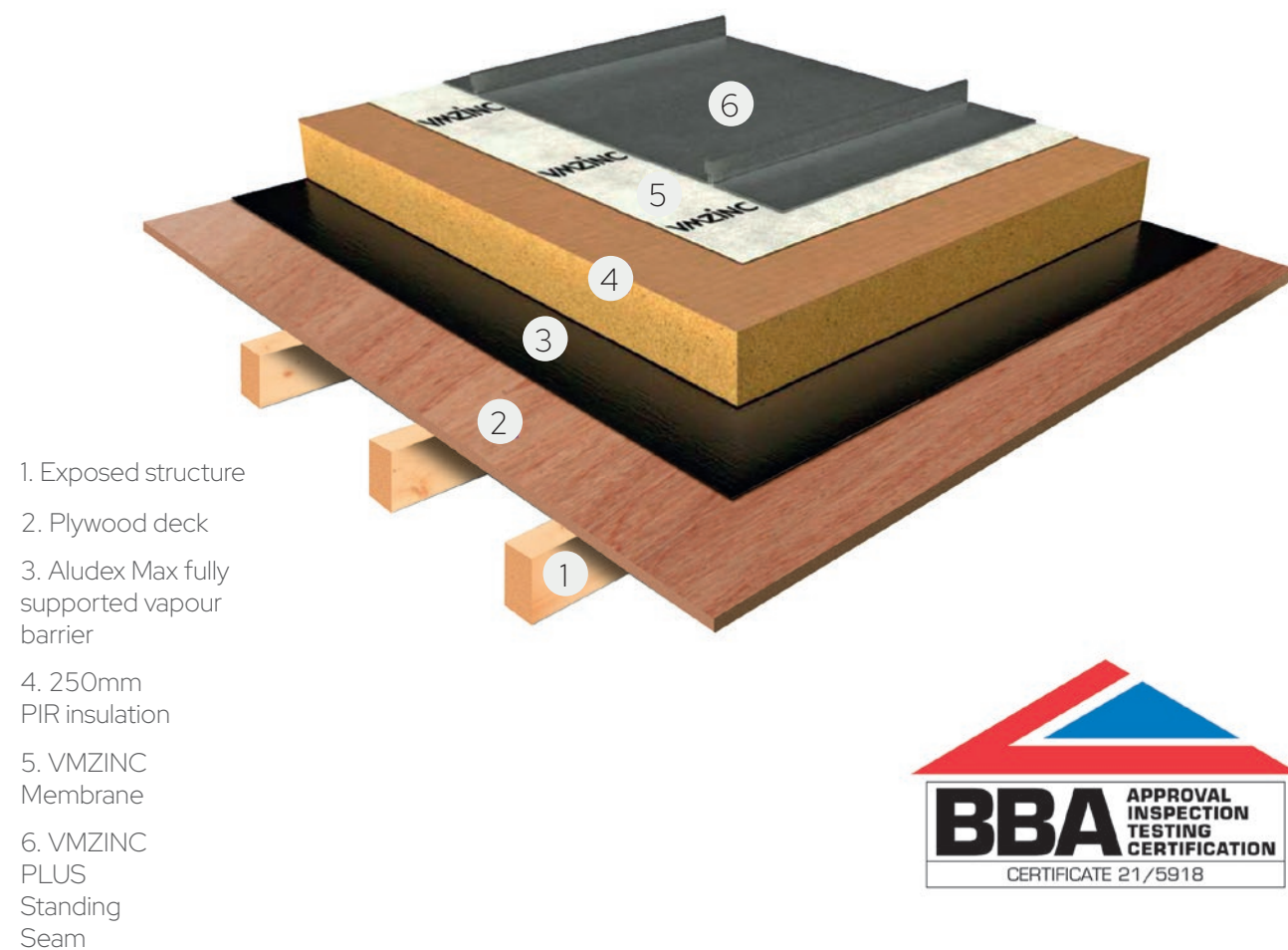


HRW Bio: Established in 2001, we have built a reputation for delivering efficient and elegant design solutions through a creative and collaborative design practice. As first-day signatories of UK Structural Engineers Declare Climate & Biodiversity Emergency, we have committed to raise awareness of these fundamental issues through our work.

9.6 PROPOSED ROOF AND WALL BUILD UP

These page uses example details to lay out our build-ups strategy. Great care will be taken to manage moisture and ensure a continuous vapour control layer. Due to the complex geometry, sprayed products such as those by intelligent membranes can also be utilised.

VM Zinc warm roof build up standard detail

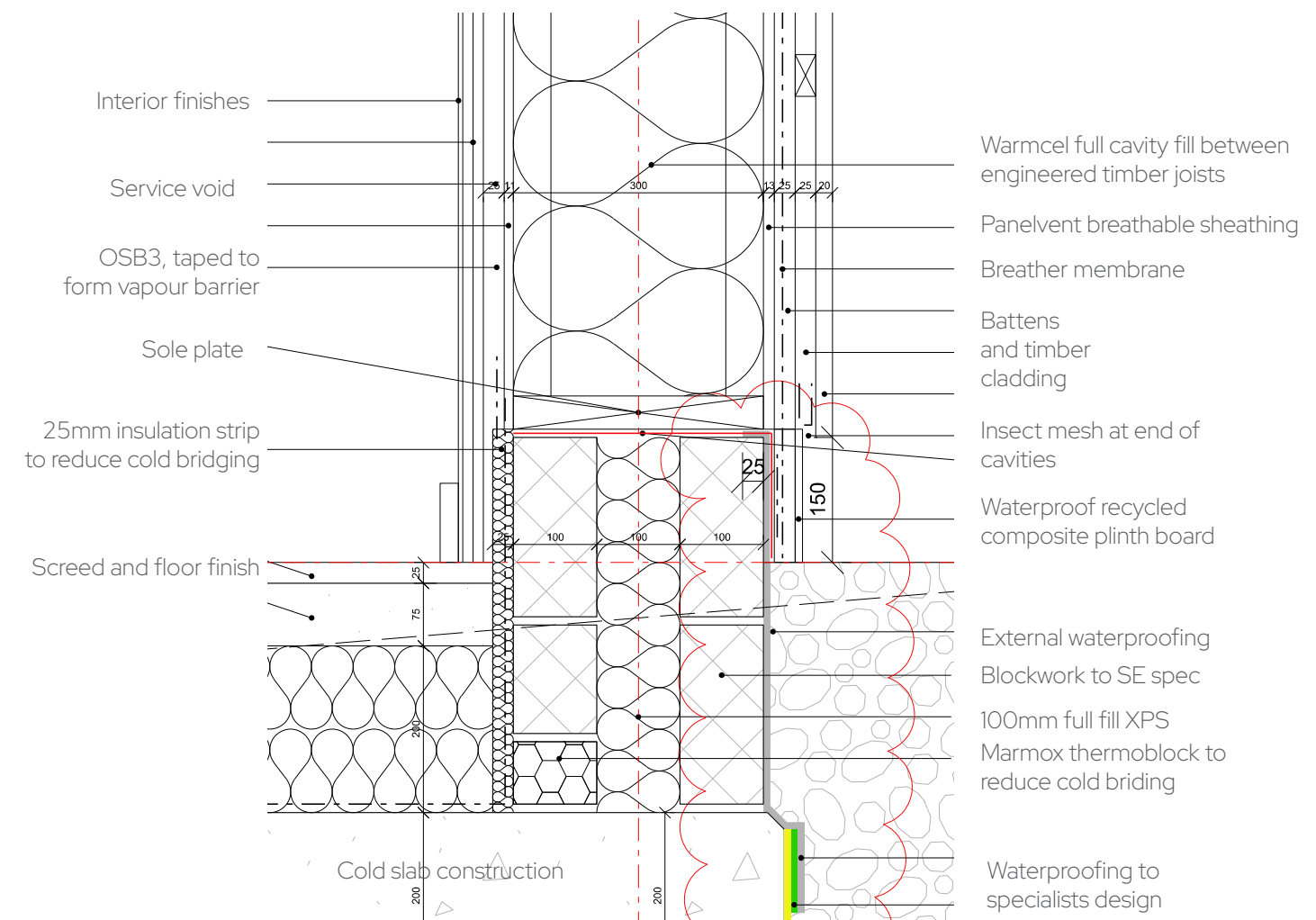


Why a warm roof?

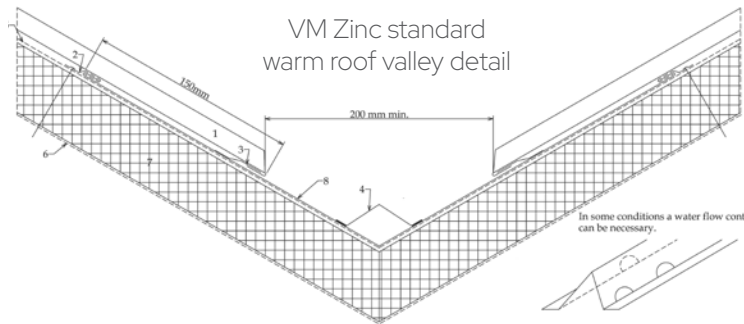
Many of our past projects have utilised a full 300mm cellulose cavity fill construction to the roof, with a ventilated void above. This project will differ for the following reasons:

- A warm roof construction allows the roof structure to be seen and celebrated internally
- Due to the surrounding tree cover there is less risk of overheating to this house and therefore the lesser thermal mass of PIR insulation is considered an appropriate compromise compared to wood fibre or cellulose
- The layer of proposed insulation will be completely continuous above the ply roof deck and offer excellent U-values with 250mm thickness
- The VM Zinc warm roof system fits well with the chosen design and enables slim build ups to keep the roof looking as delicate as possible.

Example floor to wall detail on by HAWKES.



9.7 INDICATIVE STRUCTURAL SECTION (1 OF 2)



- 1. Standing Seam VMZINC® in zinc plus
- 2. sheet clip in zinc plus, th=0.7 mm, w=80 mm, 2 per m
- 3. continuous welt strip in zinc plus, soldered continuously
- 4. water flow controller
- 5. VMZINC Membrane
- 6. Aludex max fully supported by plywood or structural metal deck
- 7. insulation mineral wool or PIR, in accordance with specifications
- 8. valley gutter VMZINC® in zinc plus

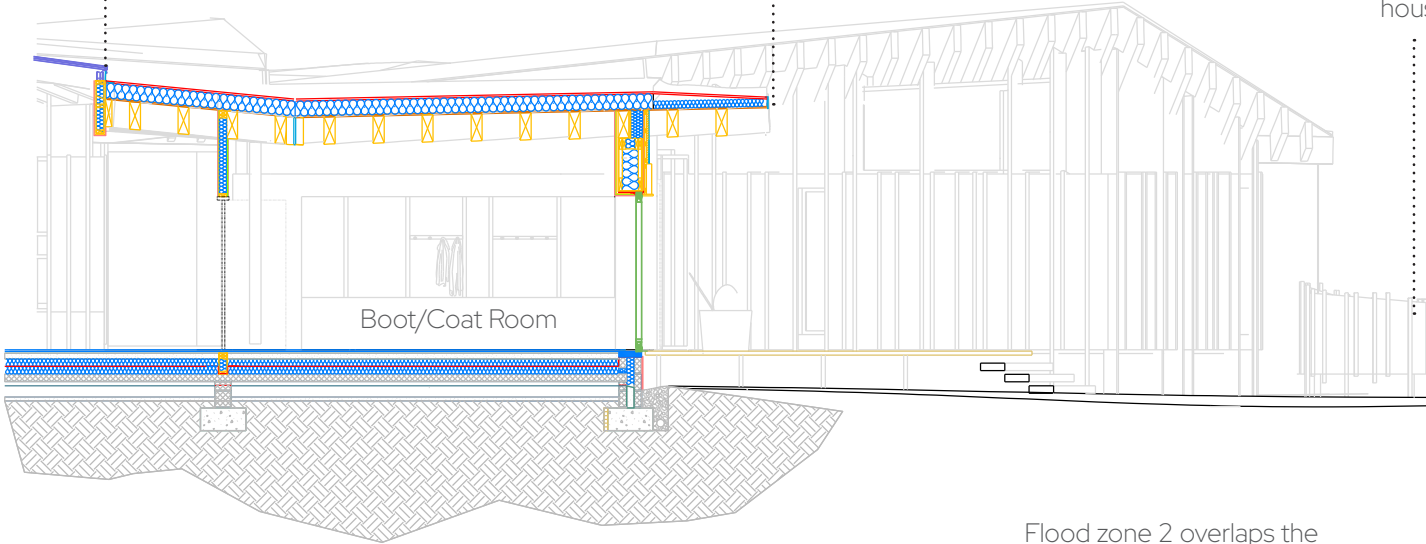
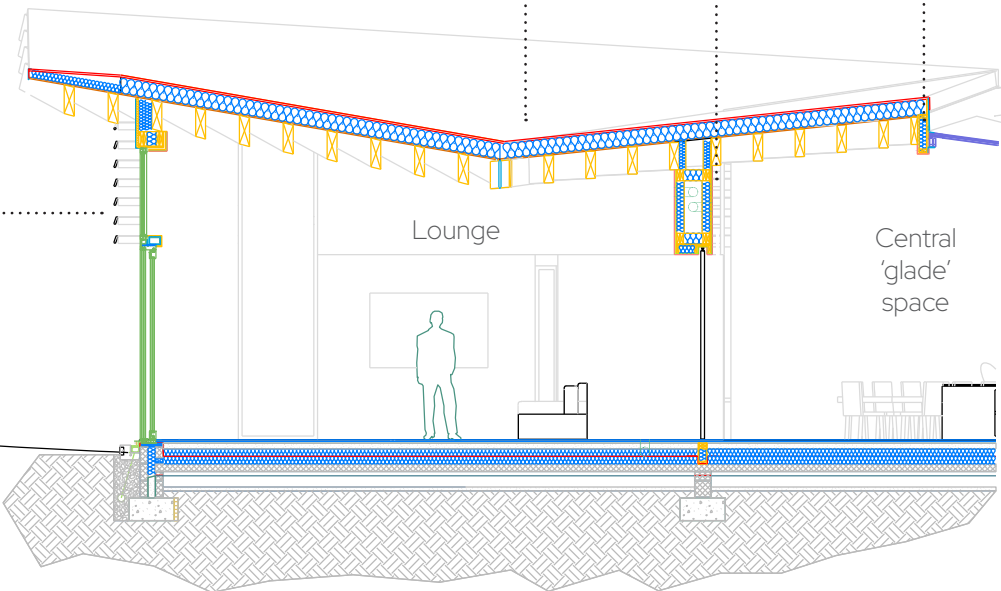
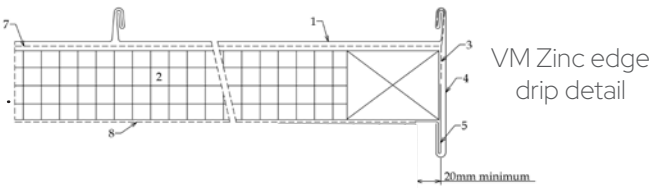
These indicative sections are taken from cuts from our 3D model which contains the coordinated engineers HRW structure. Please note that because of the non-rectilinear nature of the building, the cut meets roof building elements at a diagonal angle.

Fully supported vapour barrier sits above ply layer and overlaps with wall vapour barrier.

Rooflights are framed out by insulated down stands

Rooflights are laid to a fall with runoff onto the lower roof. Flashings ensure watertightness

- 1. Standing Seam VMZINC® in zinc plus
- 2. insulation mineral wool or PIR, in accordance with specifications
- 3. VMZ Sliding clip in stainless steel, (manually adapted/transformed)
- 4. fascia VMZINC® in zinc plus
- 5. continuous edge flashing in zinc plus
- 6. wall
- 7. VMZINC Membrane
- 8. Aludex max, fully supported by plywood or structural metal deck

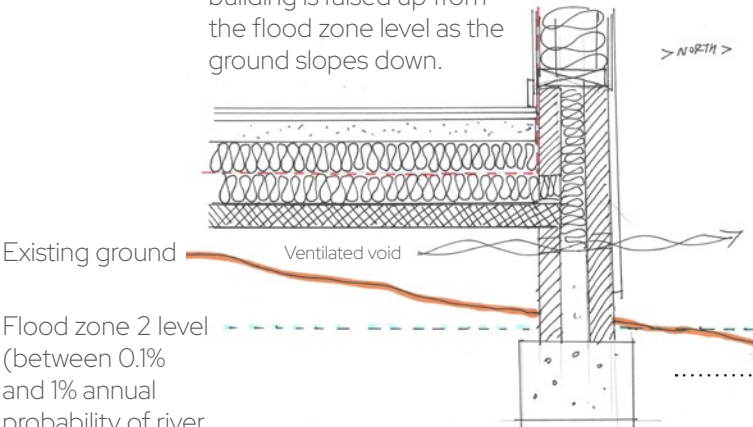


Example of corner louvres at HAWKES Echo Barn project.



Example of shallow pitched zinc roofing on a contemporary dwelling

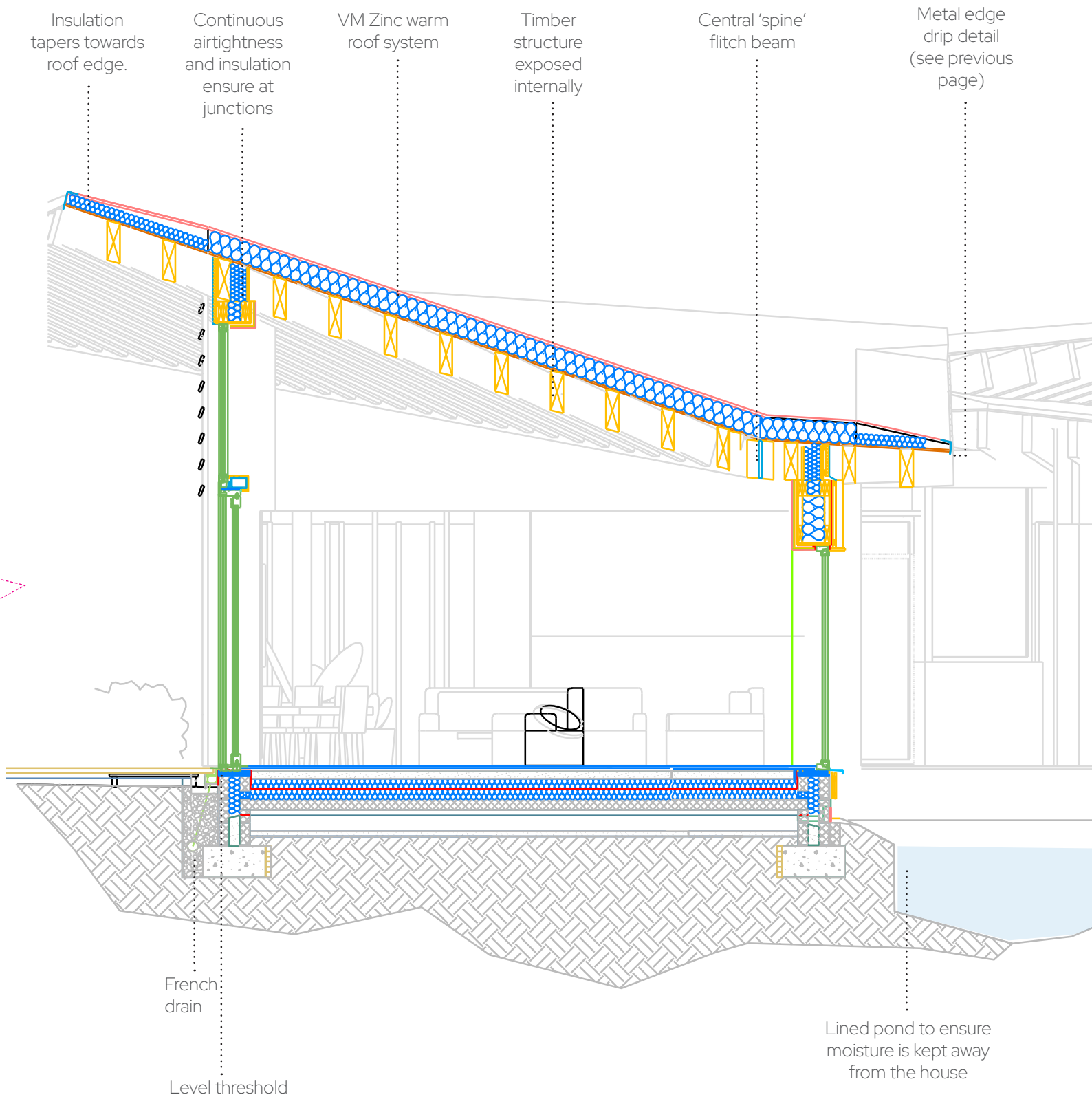
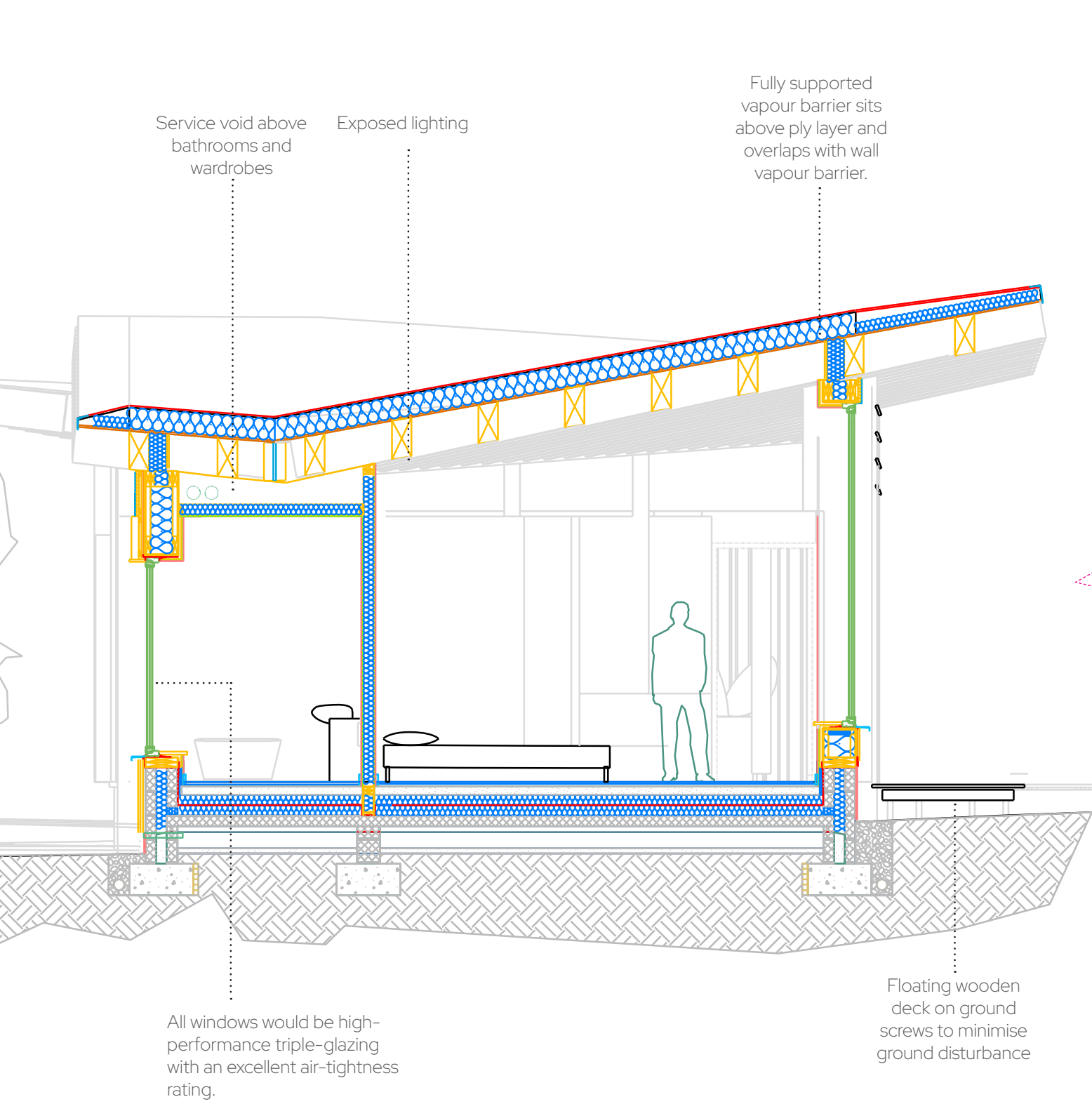
Flood zone 2 overlaps the building to the north of the site. Because the building is on a single datum the building is raised up from the flood zone level as the ground slopes down.



0m 10m 1:100



9.8 INDICATIVE STRUCTURAL SECTION (2 OF 2)



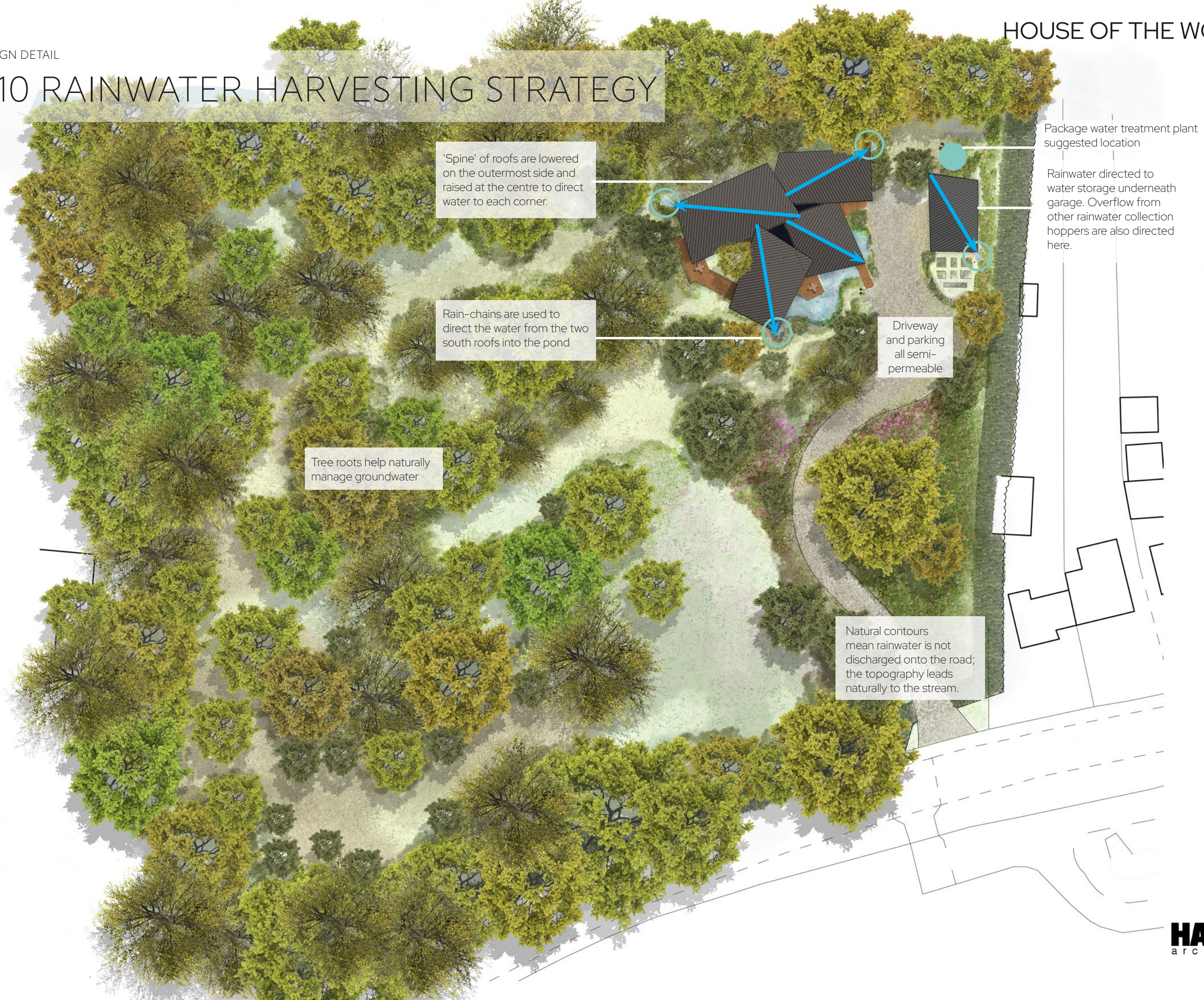
0m 5m 1:50



9.9 PRECEDENT: FOUR LEAVES VILLA

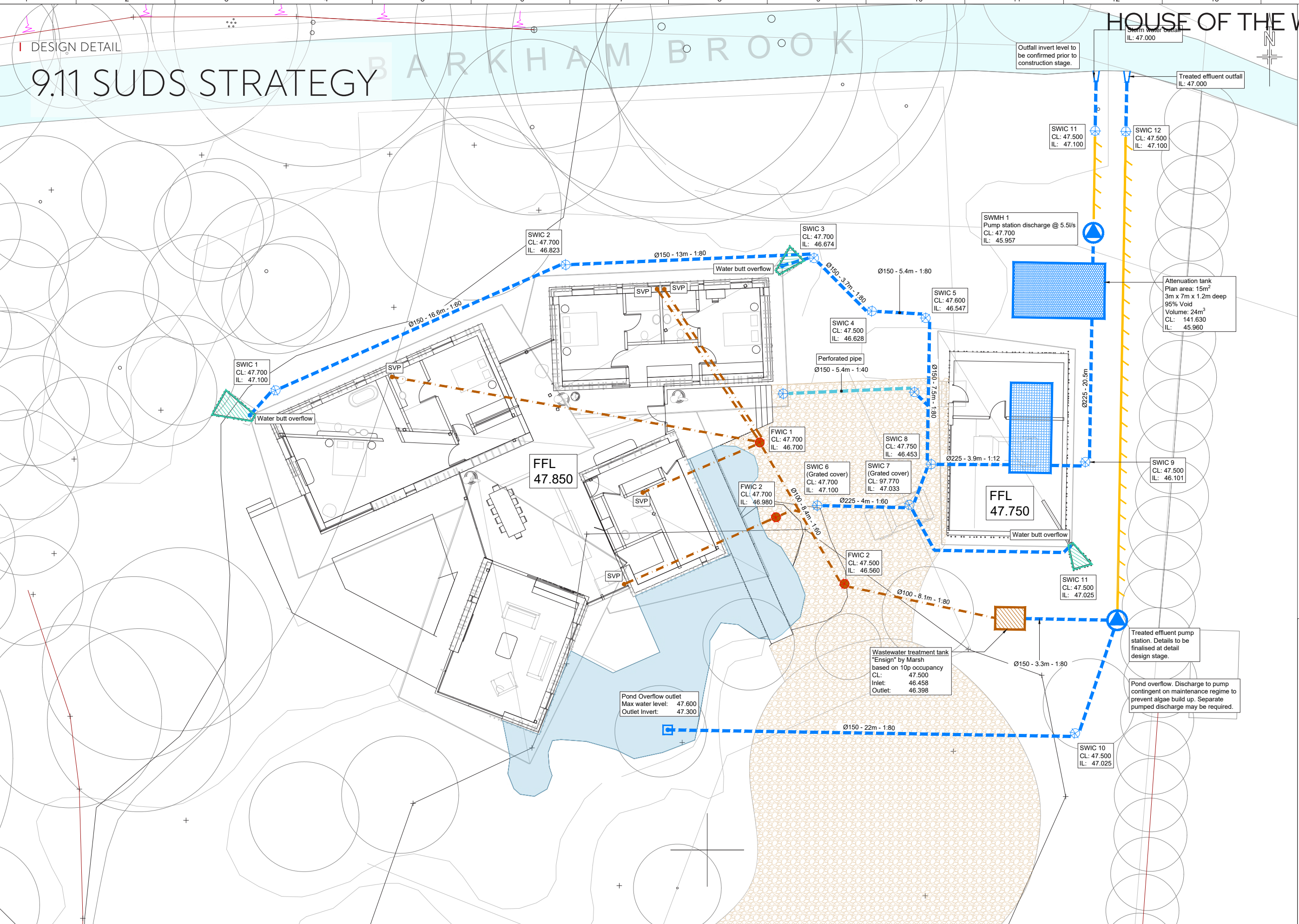


9.10 RAINWATER HARVESTING STRATEGY



9.11 SUDS STRATEGY

HOUSE OF THE WOODS



Notes:

- Do not scale from this drawing. If in doubt ask.
- Dimensions are in millimetres unless noted otherwise.
- These drawings shall be read in conjunction with the Architect's drawings.
- Setting out is to be in accordance with Architect's drawings.
- Underground drainage:-

Drains to be 100mm diameter Hepworth Plastidrain or equivalent PVC-U pipes to BS EN 1401 unless noted otherwise.

150mm diameter Hepworth Plastidrain or equivalent PVC-U pipes to BS EN 1401 where noted.

100mm diameter Hepworth Plastidrain or equivalent PVC-U plain end slotted pipes to BS EN 1401 where noted.
- Foul drains to fall at minimum 1:60 & surface water drains to fall at 1:100 unless noted otherwise or where invert levels are not indicated.
- External drains with less than 600 cover (900 in driveway) to have special protection.
- Drains alongside buildings and below formation level to have concrete bed and surround up to formation level.
- Where drains pass through wall lines, provide precast concrete lintels over (lintel length to be pipe diameter + 50mm clearance either side + min 150mm bearing each end). Clearance around pipe to be filled with a compressible filler.
- All underground drains to be laid with min. 150mm granular bed and surround, unless noted above.
- For exact locations of svp's, ss's, rwp's, etc. refer to Architect's drawings.
- All RWP's to discharge into roddable trapped access gullies unless noted otherwise.
- All Internal Drainage to be in cast iron and provided with roddable access points.

Key:

- Proposed foul water drain
- Foul water PPIC
- Proposed foul water treatment plant
- Proposed soil vent pipe
- Proposed surface water drainage
- Surface water PPIC
- Proposed filter drain
- Proposed rising main
- Water butt overflow
- Proposed waterbutt
- Proposed rainwater harvesting tank
- Non-return valve
- Proposed feature pond
- Proposed permeable pavement
- Proposed surface water pump
- Proposed feature pond overflow outlet
- Proposed outfall headwall

Notes:

- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT MONSON DRAWINGS AND SPECIFICATIONS, ANY DISCREPANCIES TO BE REPORTED TO MONSON PRIOR TO ANY FABRICATION OR WORK COMMENCING ON SITE.
- DO NOT SCALE THIS DRAWING. USE FIGURED DIMENSIONS ONLY.
- ALL DIMENSIONS IN MILLIMETRES, ALL LEVELS IN METRES.

A		TH	08/07/2026	Original Issue
Issue		By	Date	Amendments

MONSON

Broadway Chambers, High Street, Crowborough, East Sussex TN6 1DF
Tel: (01892) 601370
E-mail: enquiries@monson.co.uk

Project:
Barkham Road
Barkham
Berkshire
RG41 4TJ

HAWKES
architecture

Original Drawing:	Prepared	TH	Approved	MW
Origin:	Crowborough	Size	A1	
Current Issue:	Preliminary	MW	Date	08/07/2026
Drawing Status:	PRELIMINARY			

Scale:		Dwg No:	Issue:
1:1000		26191/201	A

9.12 DAYLIGHT STUDY

WINTER SOLSTICE

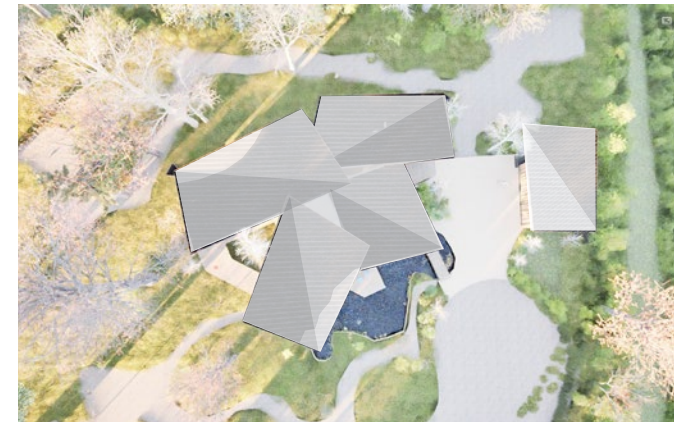
09:00



12:00



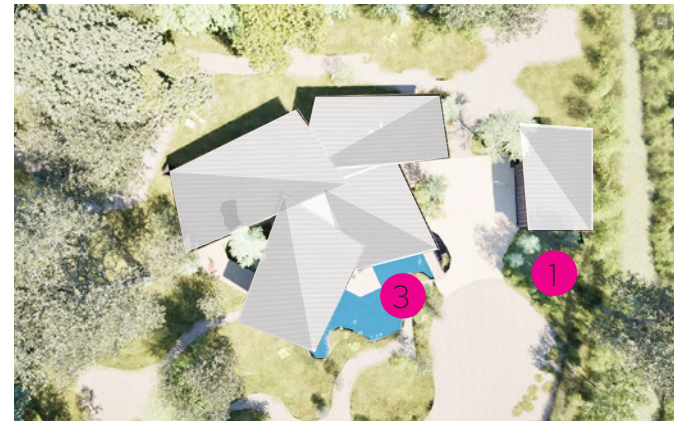
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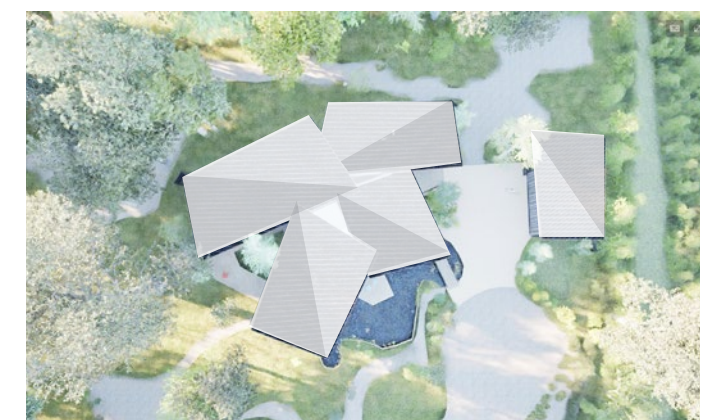
20:00



EQUINOX



SUMMER SOLSTICE



1 Vegetable garden in shade in morning hours of the day only

2 Vegetable garden in sunlight past 12pm, up until 5pm

3 South deck in full sun until mid-afternoon

4 Garage PV roof in sunlight for the majority of daylight hours

5 West deck in sunlight during afternoon hours

6 Skylights receive daylight through all seasons and daylight hours