

SKETCH 1

THE WARREGO TYPHOON PROOF BUNGALOW

TWO SLAB ARRANGEMENT

CENTRE OF HOLE 184MM FROM MAIN SLAB

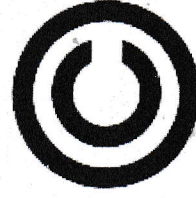
MAIN SLAB

150MM STEP 100MM GAP BETWEEN POST AND EDGE OF
MAIN BUNGALOW SLAB

THIS ARRANGEMENT OF SLABS LOCKE POST SLAB TO PRIMARY BUNGALOW SLAB

BOX AND POUR SECONDARY POST SLAB FIRST, THEN
PRIMARY BUNGALOW SLAB TO LOCK SECONDARY SLAB IN
PLACE

SECONDARY POST SLAB



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SKETCH 1A

16.8M

PRIMARY BUNGALOW SLAB

GIVING AN OVERALL LENGTH OF 17.4M AND AN O/A WIDTH OF 8M

EXOSKELETON ADDS 60 CM TO BOTH LENGTH AND WIDTH

7.4M

EXOSKELETON POST POSITION ALIGNMENT MARKS

30CM

SECONDARY EXOSKELETON POSTS SLAB



SKETCH 2

WARREGO TYPHOON PROOD BUNGALOW

16.8 m

8.0 m

7.4 m

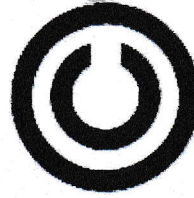
17.4 m

SLAB 1 BUNGALOW SLAB
ALL WALL MODULES 2.4 HIGH X 1.2 WIDE

END DETAIL (SAME BOTH ENDS)

7 WALL MODULES

13 WALL MODULES



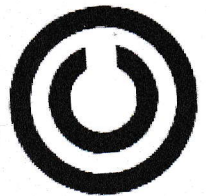
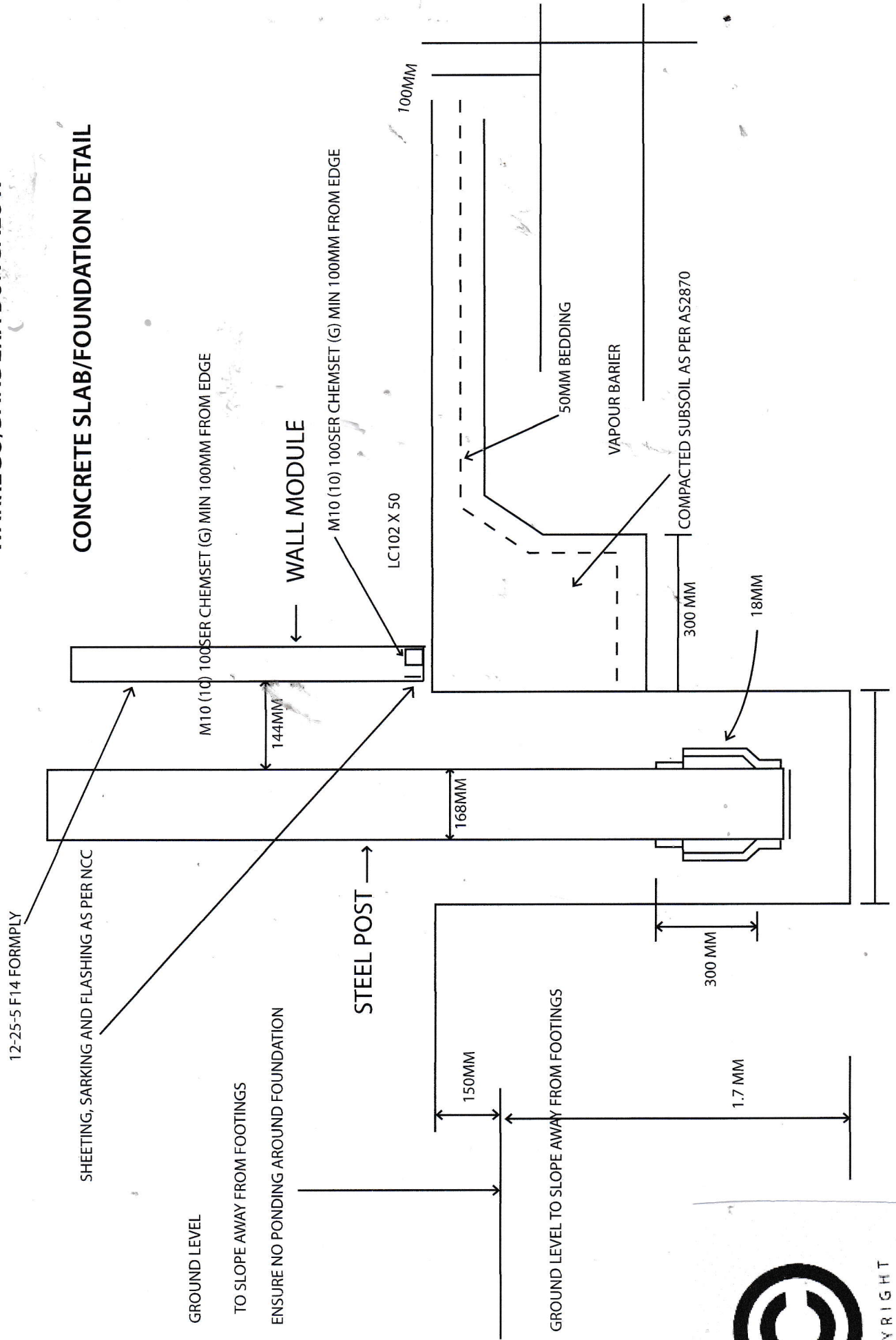
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SLAB 2 EXOSKELETON SLAB

SKETCH 2A

WARREGO/BANDERA BUNGALOW

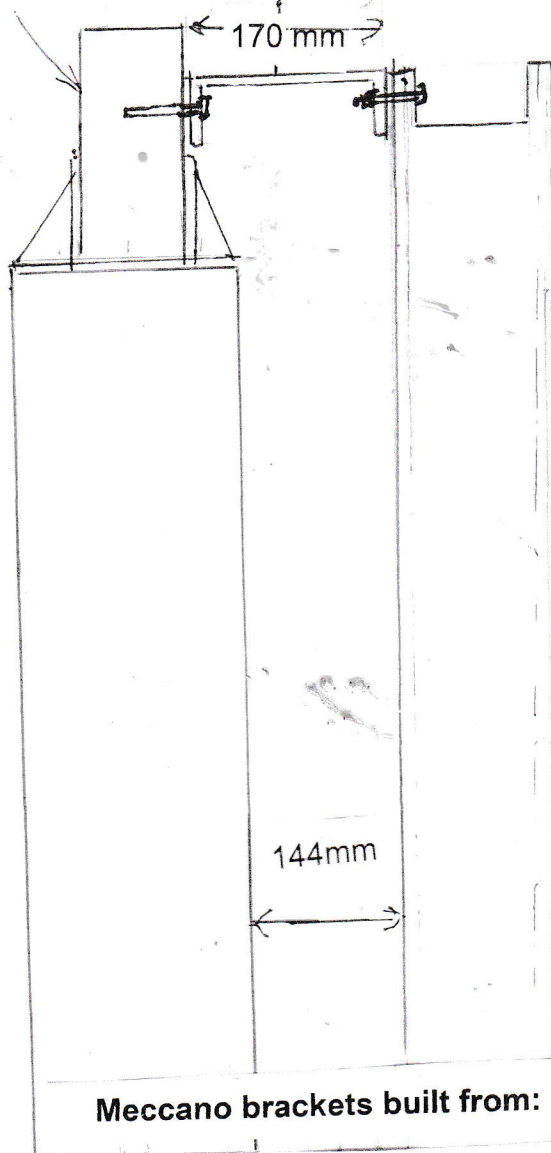
CONCRETE SLAB/FOUNDATION DETAIL



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DETAIL FOR ATTACHING OUTER WALL MODULES TO HARWOOD EXOSKELETON

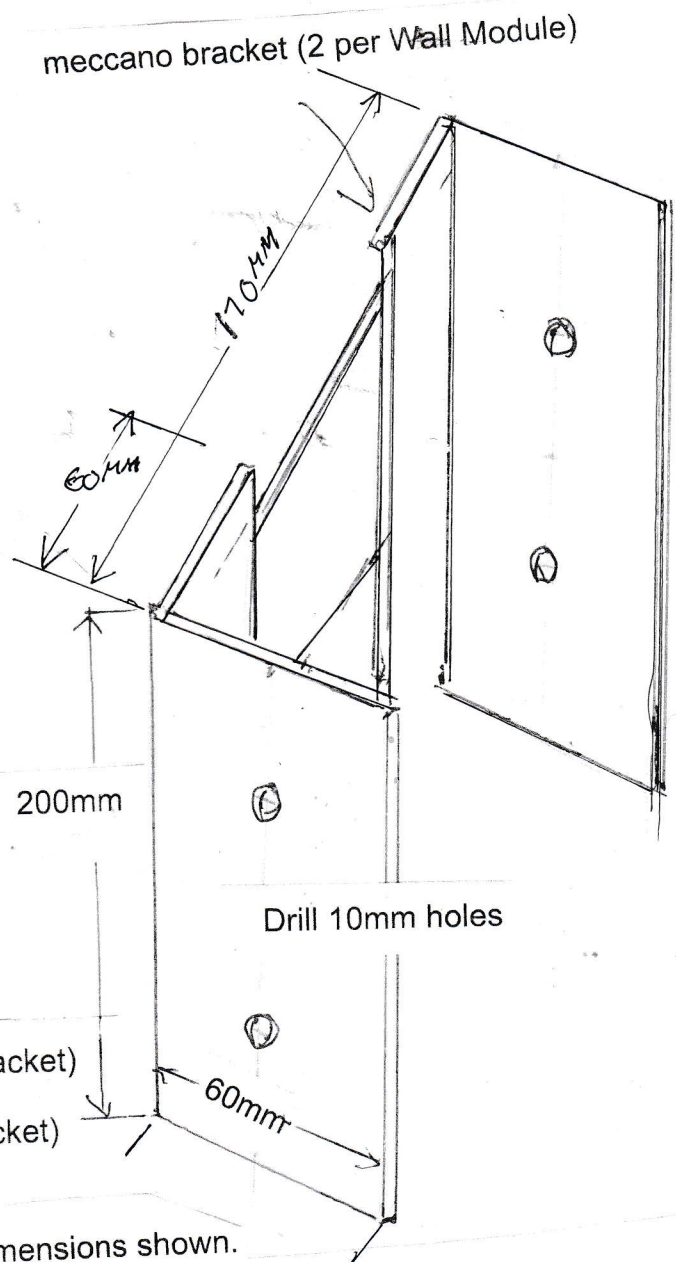
275x100mm hardwood beam Meccano Bracket



Make-a-bracket angle MABA2641 (2 per bracket)

Male -a Bracket shape MABT03 (1 per bracket)

Or build your own from mild steel angle and flat bar to dimensions shown.



Sketch 2C

MECCANO BRACKET

2 pieces 25mm x 8mm Hex head bolts and nuts per bracket (Bracket to Wall module top)

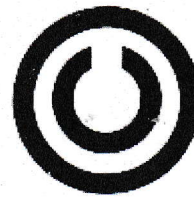
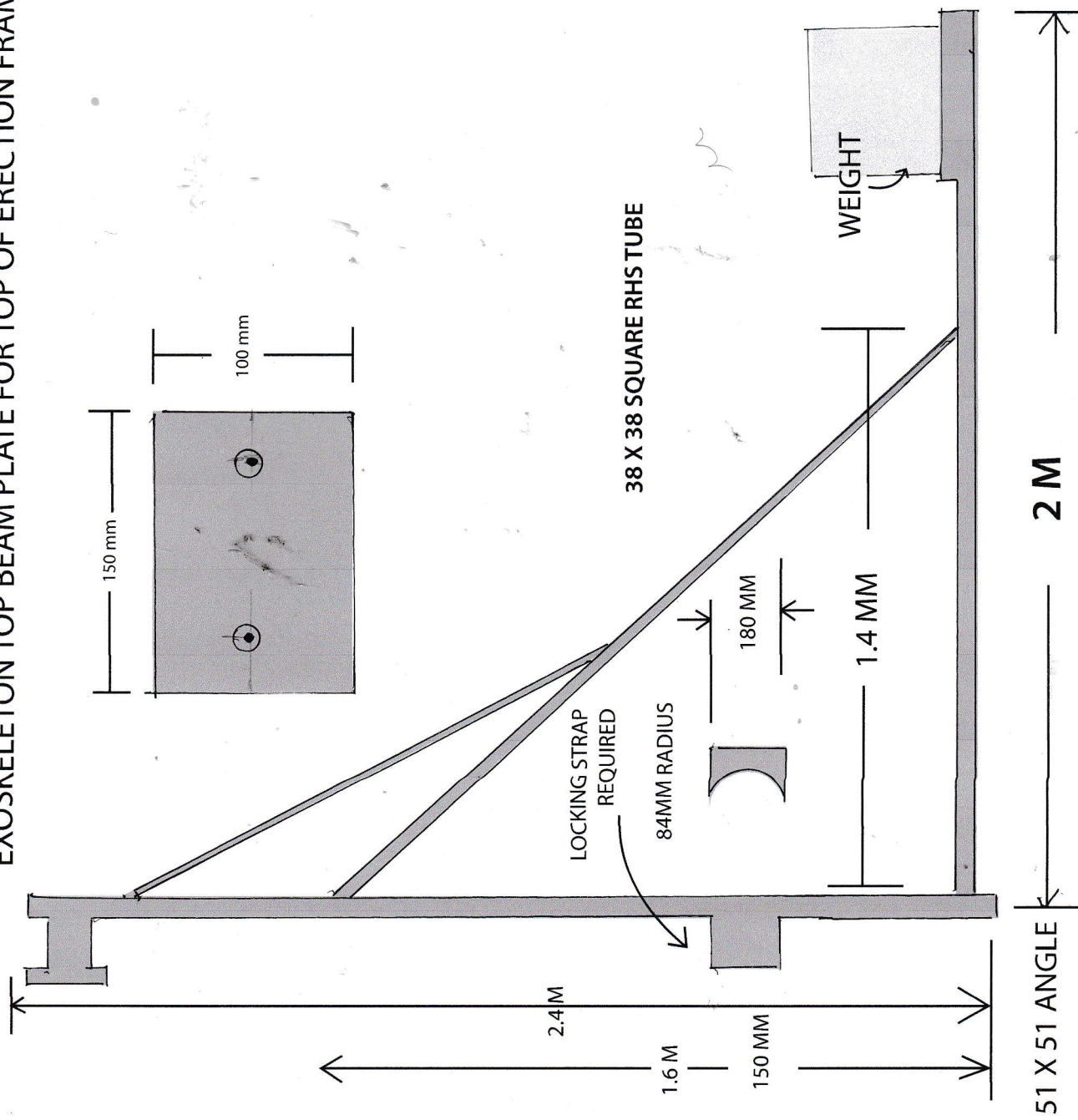
Outer wall module 2 pieces 60mmx8mm Hex head screw attaching Bracket to Hardwood beam

Matching top to post top hardwood mounting plates 150mm x 100mm

SKETCH 3

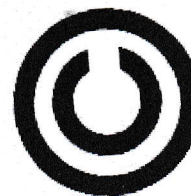
EXOSKELETON POST ERECTION STAND

EXOSKELETON TOP BEAM PLATE FOR TOP OF ERECTION FRAME



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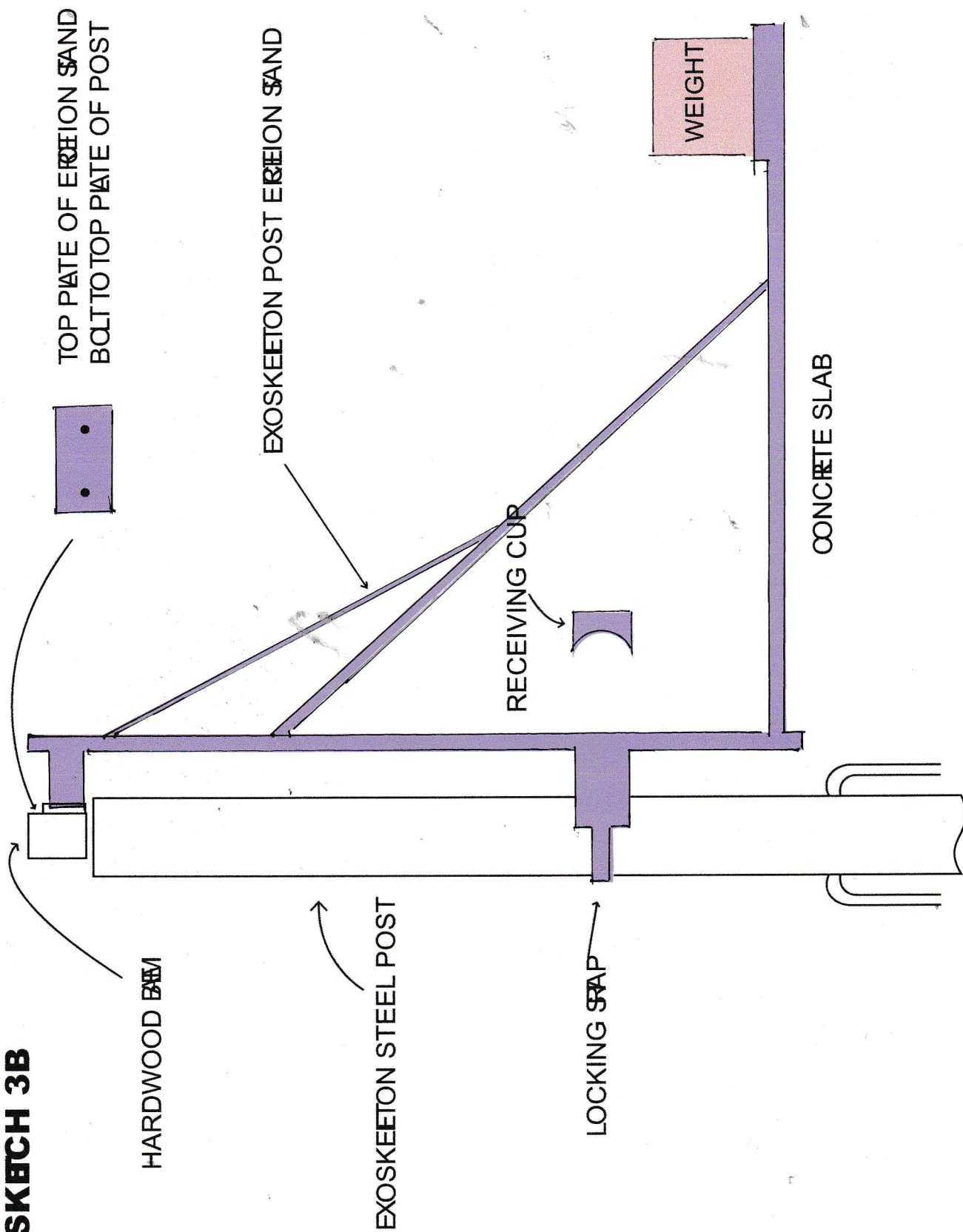
SKETCH 3A



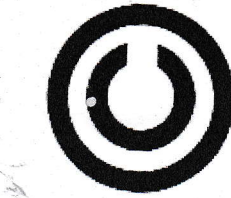
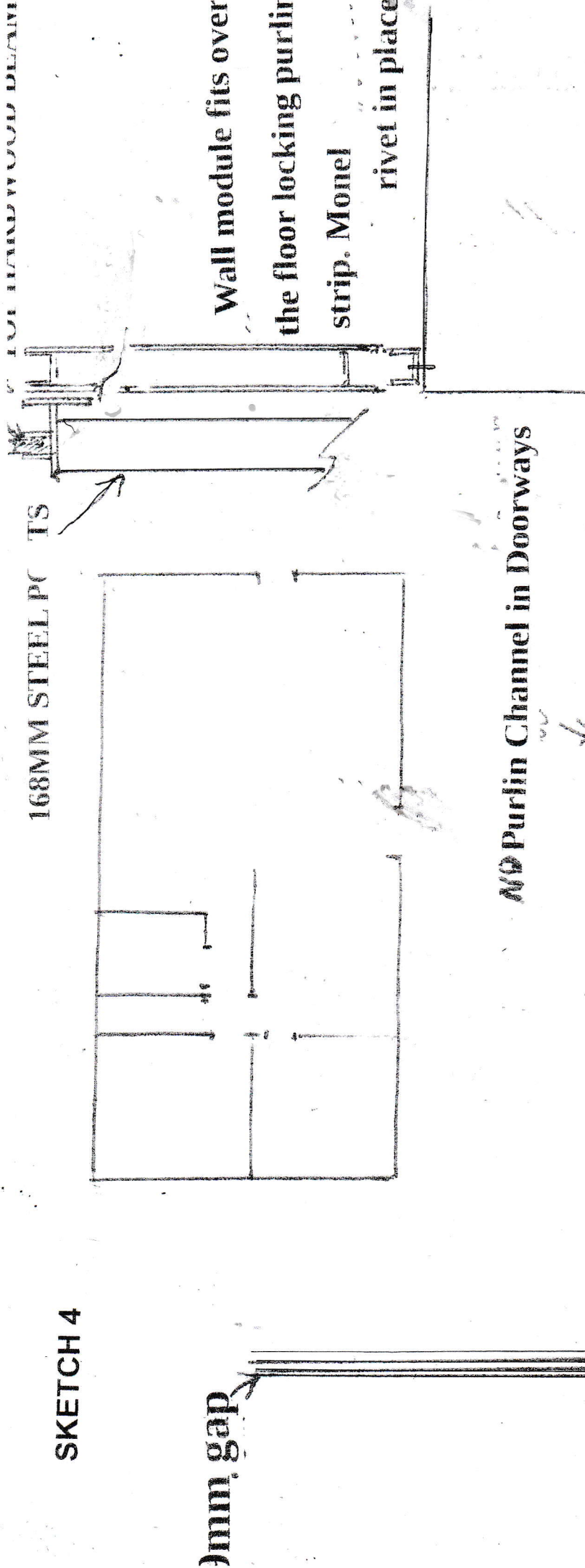
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USING ERECTION SAND TO INSTALL EXOSKEETON POST INTO ITS LOCATION

SKETCH 3B



SKETCH 4



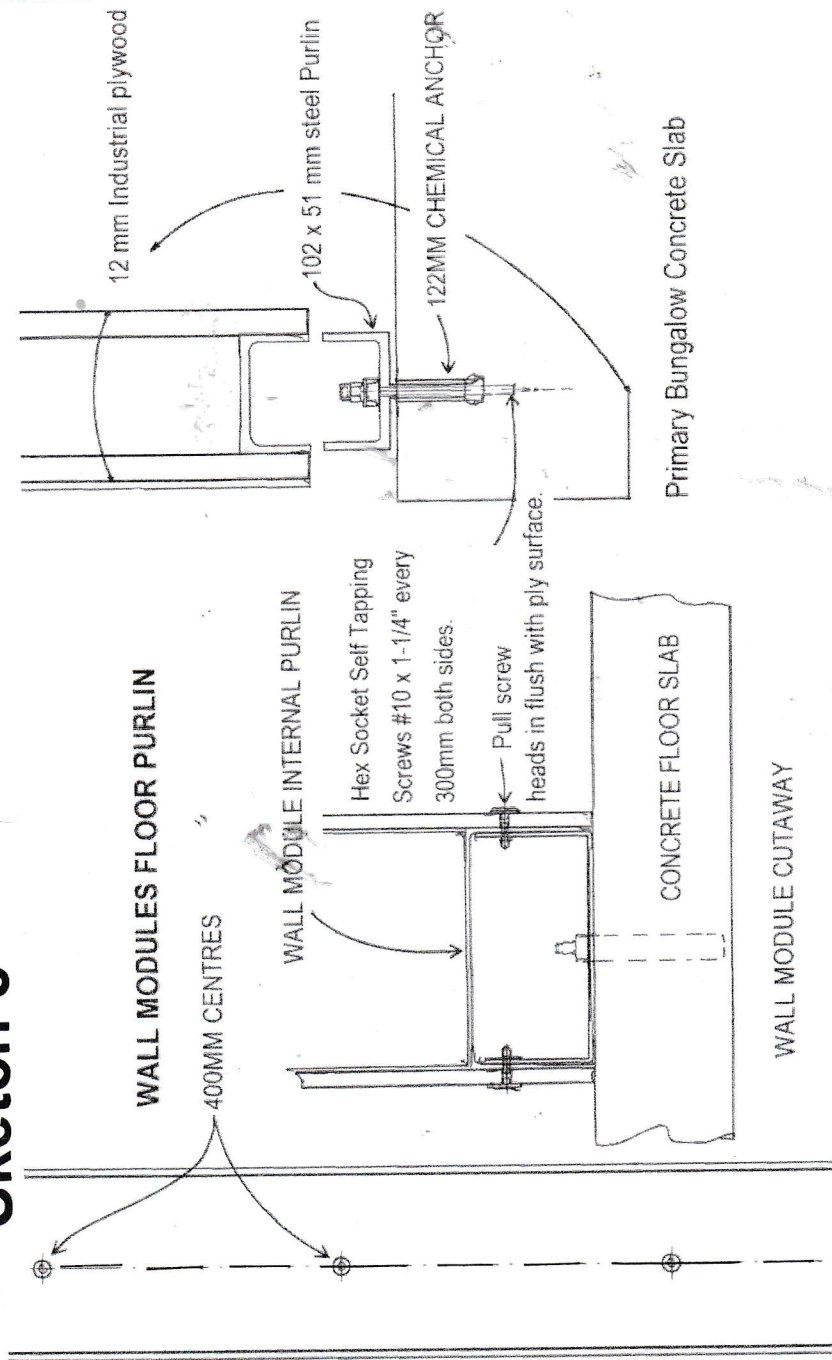
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9mm Back from edge of main bungalow concrete slab No

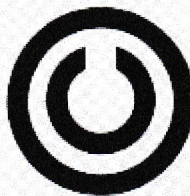
9mm gap 9mm gap all around outer wall, except for doorways.

ILLUSTRATION 8

Sketch 5



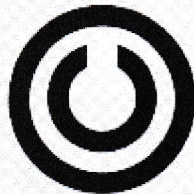
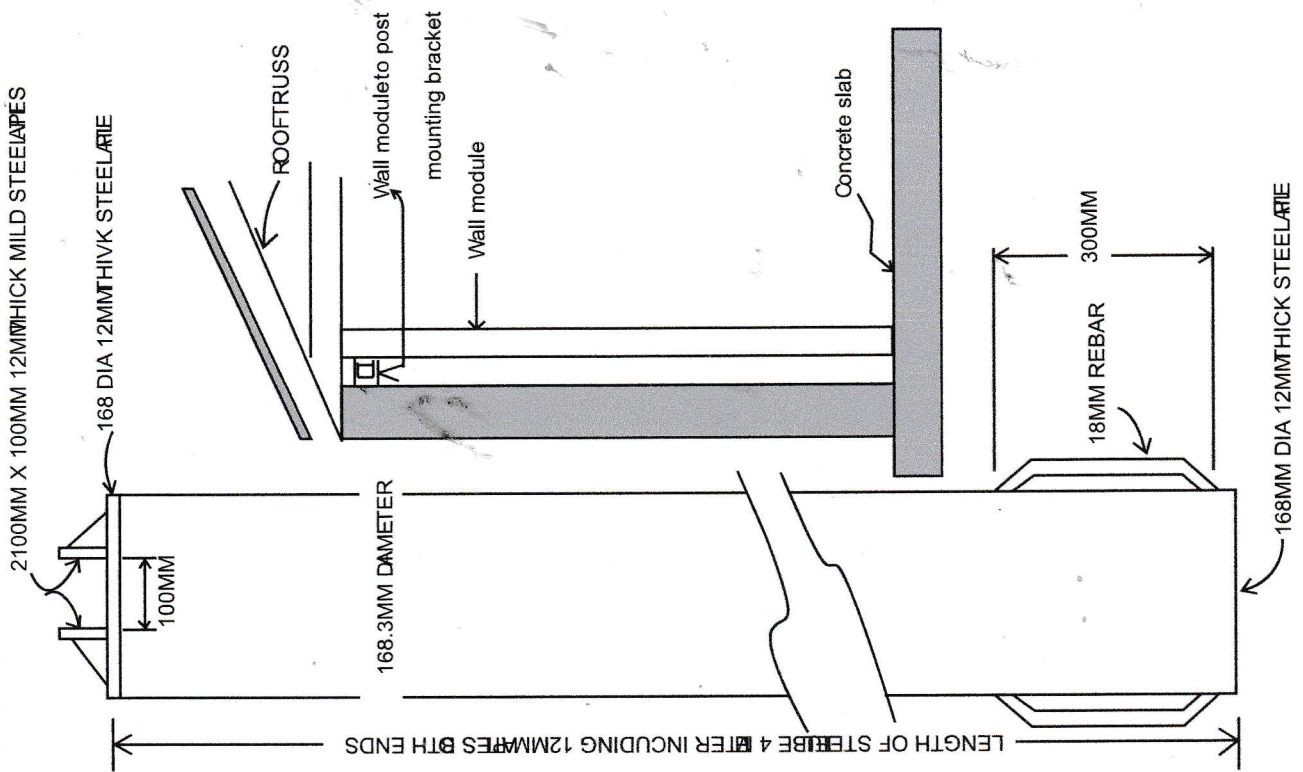
FLOOR PURLIN FOR ANCHORING WALL MODULES TO CONCRETE SLAB



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EXOSKEETON STEEL POS (16 PIECES)

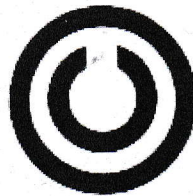
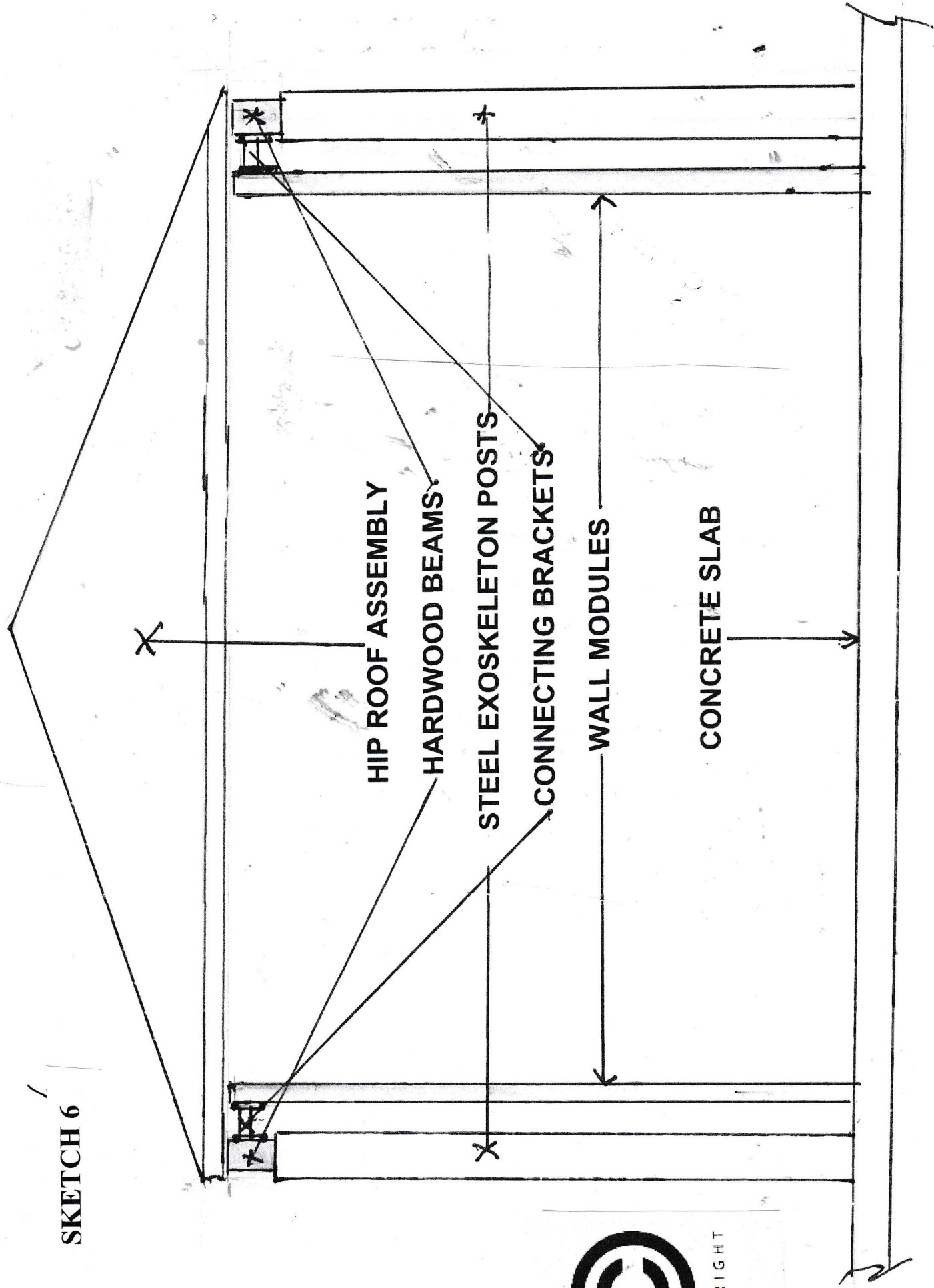
SKETCH 6



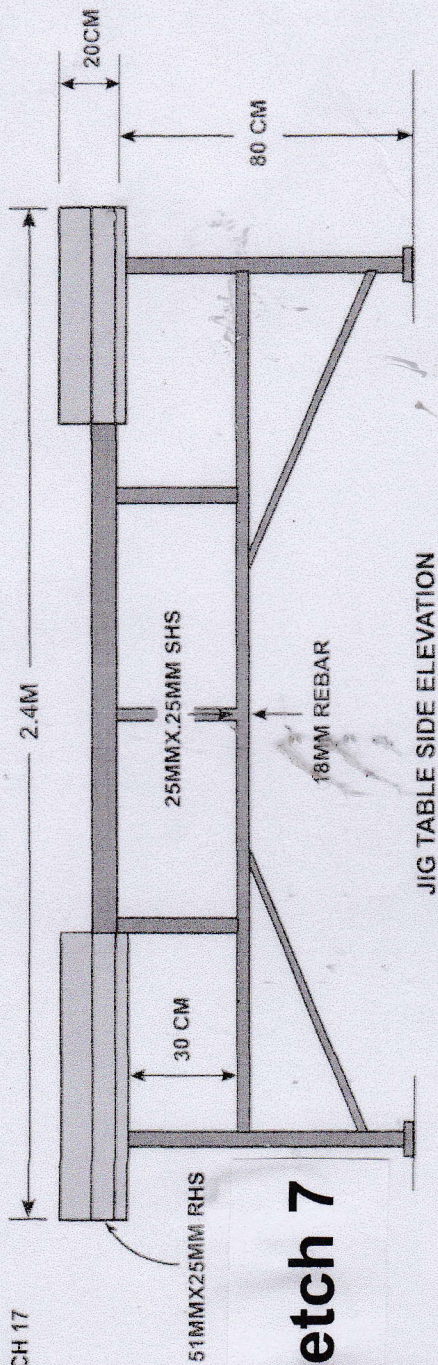
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END ELEVATION TO CLARIFY STRUCTURE

SKETCH 6

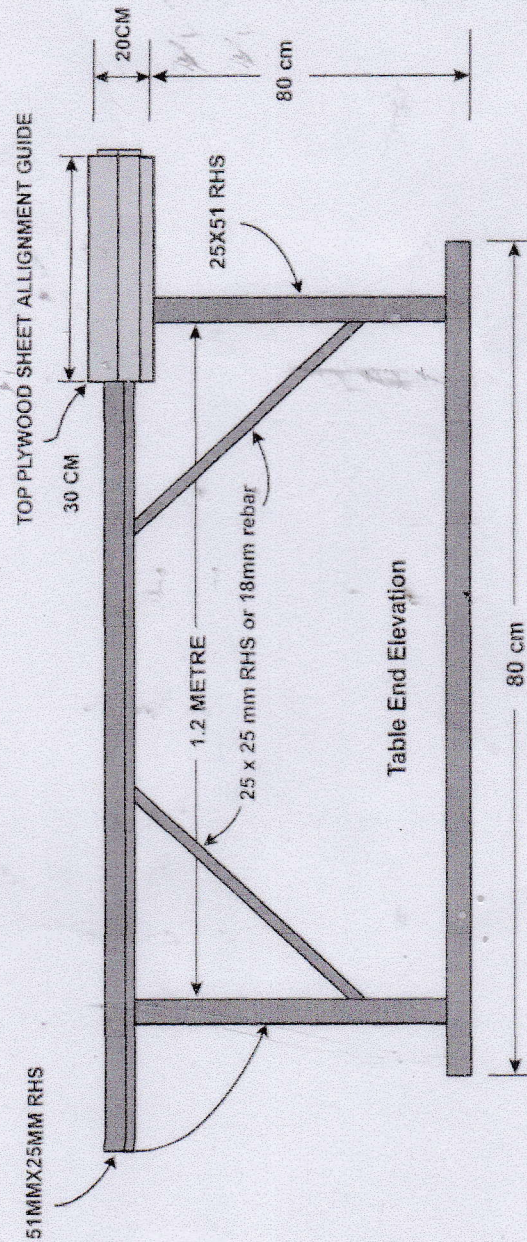


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Sketch 7

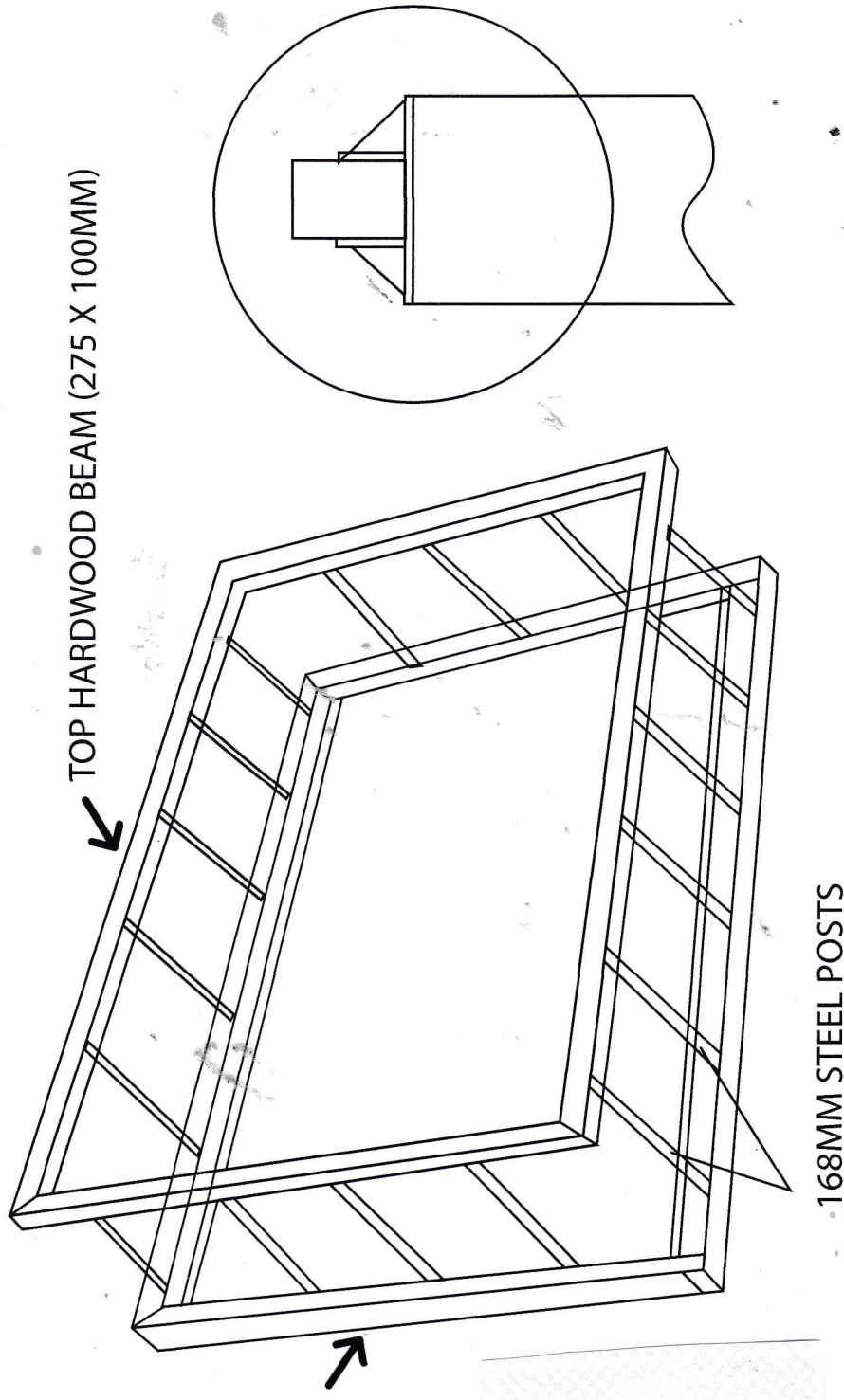
JIG TABLE SIDE ELEVATION



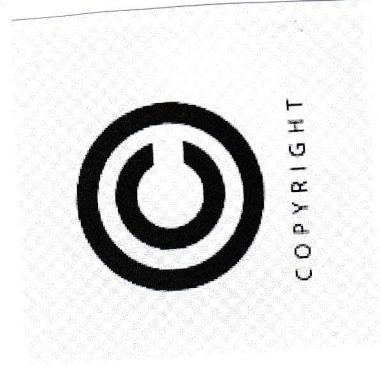
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SKETCH 9

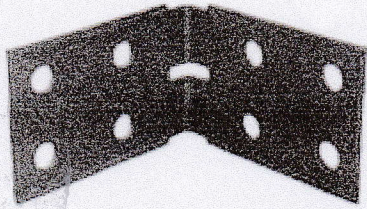
EXOSKELETON ASSEMBLY



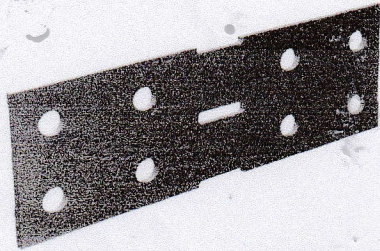
OUTER EXOSKELETON CONCRETE SLAB



EXOSKELETON ERECTION FRAME



100x100x70mmx3mm Bracket 2



200mmx70mmx3mm Bracket 1

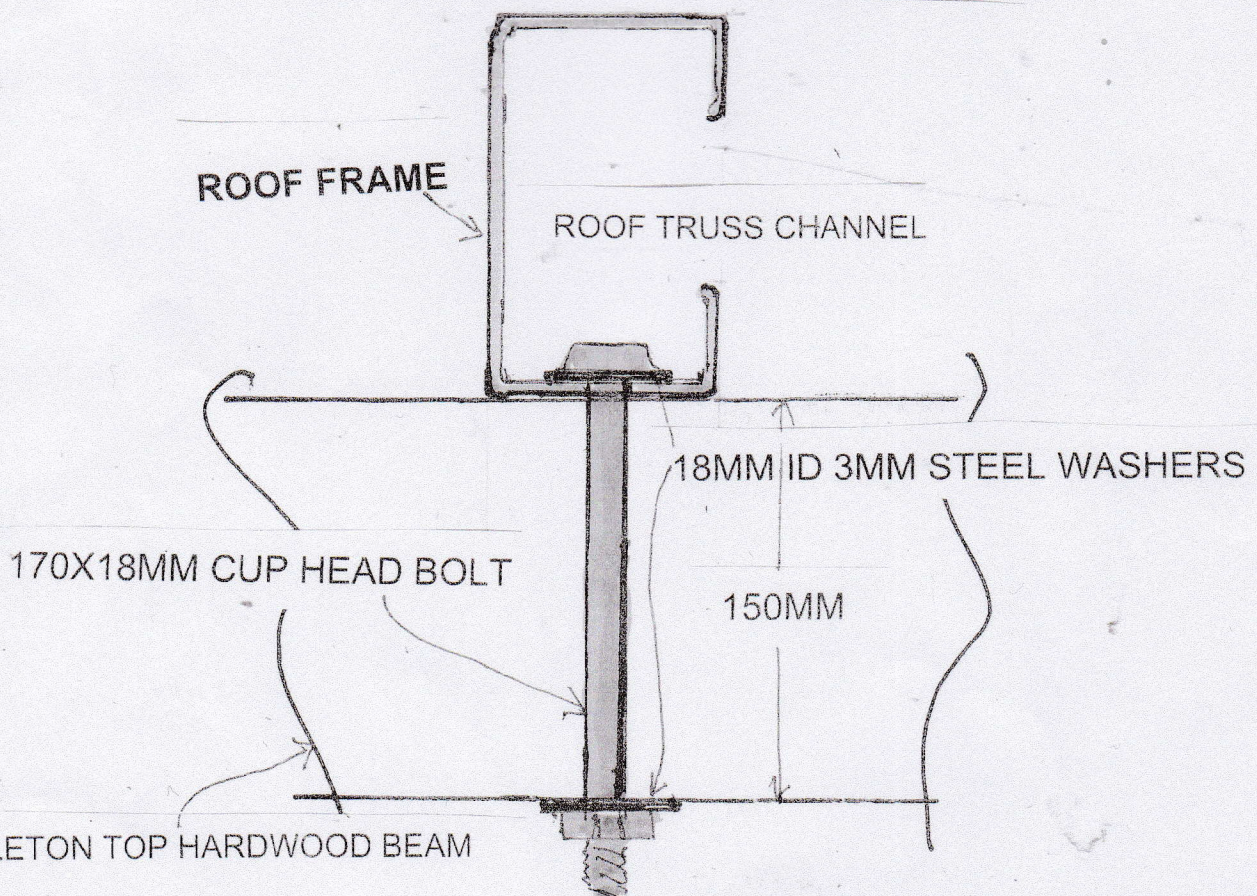


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BRACKETS FOR JOINING SECTIONS OF EXOSKELETON HARDWOOD BEAM

Sketch 10

METHOD OF FASTENING ROOF FRAMES TO TOP EXOSKELETON TOP HARDWOOD BEAM



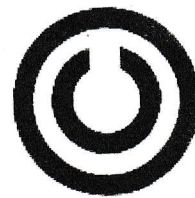
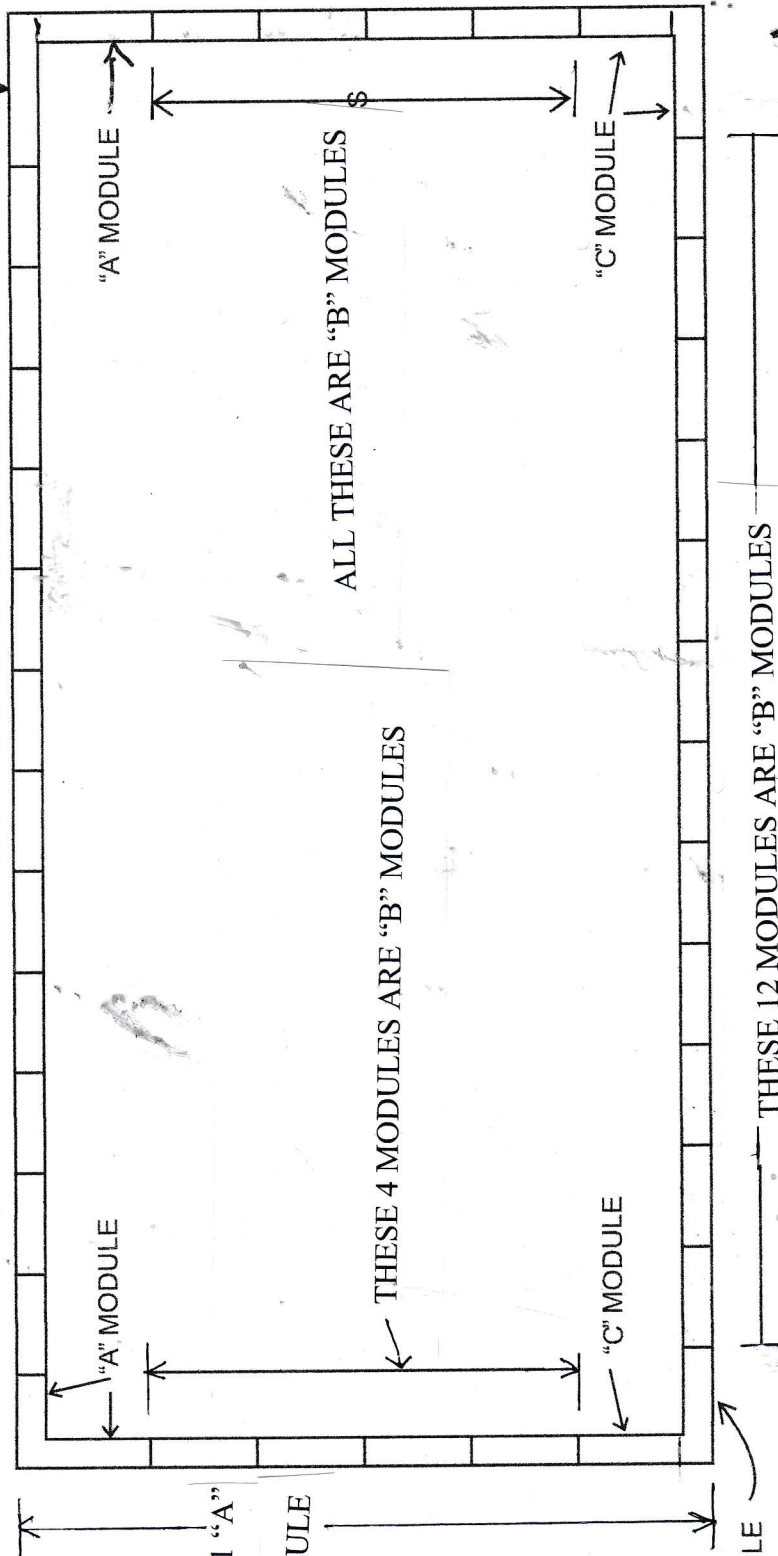
SKETCH 11

LAYOUT FOR OUTSIDE WALL MODULES ON THE PRIMARY BUNGALOW CONCRETE SLAB

BEGINNING POINT FOR
SETTING WALL MODULES

168.8M 14 MODULES IN TOTAL, 1 "A" 12 "B" MODULES AND 1 "C" MODULE

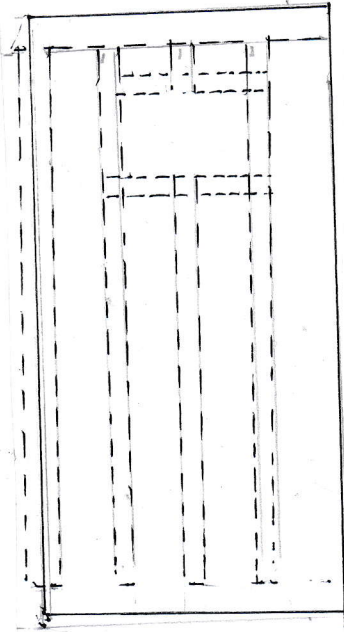
"C" module



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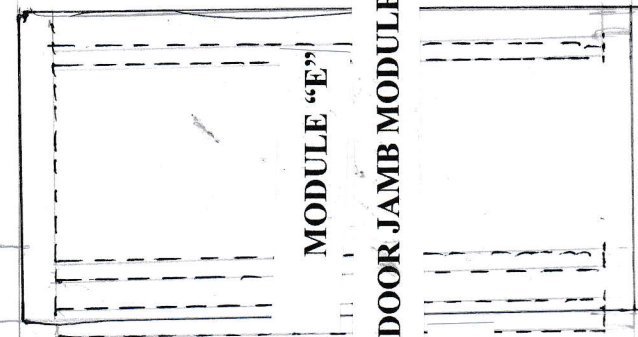
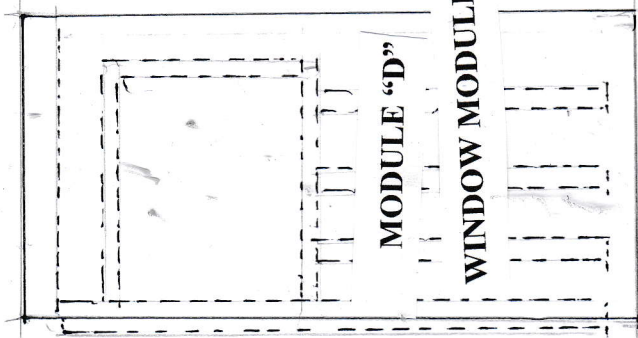
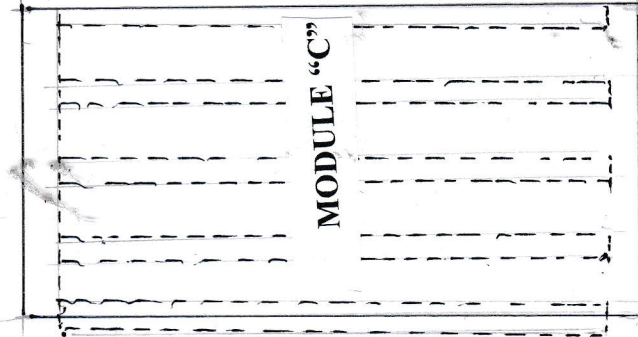
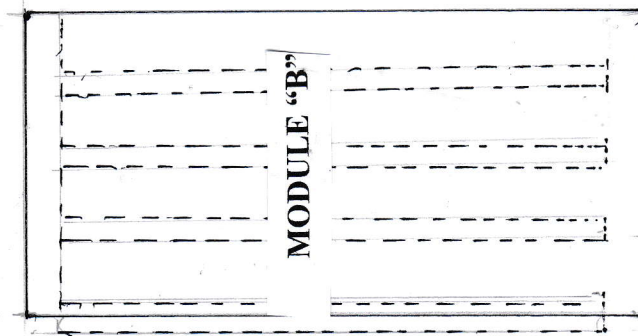
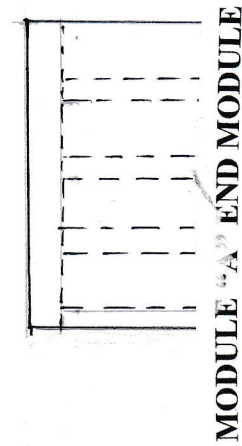
DETAILS OF MODULAR CORNERS

MODULE "F" BATHROOM WALL MODULE



SKETCH 12

QUANTITIES OF EACH MODULE STYLE SHOWN IN SKETCH 11

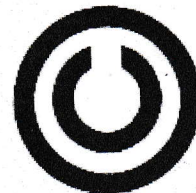


ALL INTERNAL STEEL FRAMING IS 103X51 MM CHANNEL

ALL PLYWOOD SHEETS BOTH FACES TO BE 15MM INDUSTRIAL GRADE

ALL 6 WALL MODULE STYLES SHOWING INTERNAL STEEL CHANNEL SKELETONS

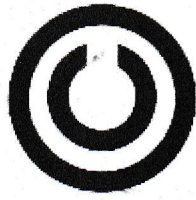
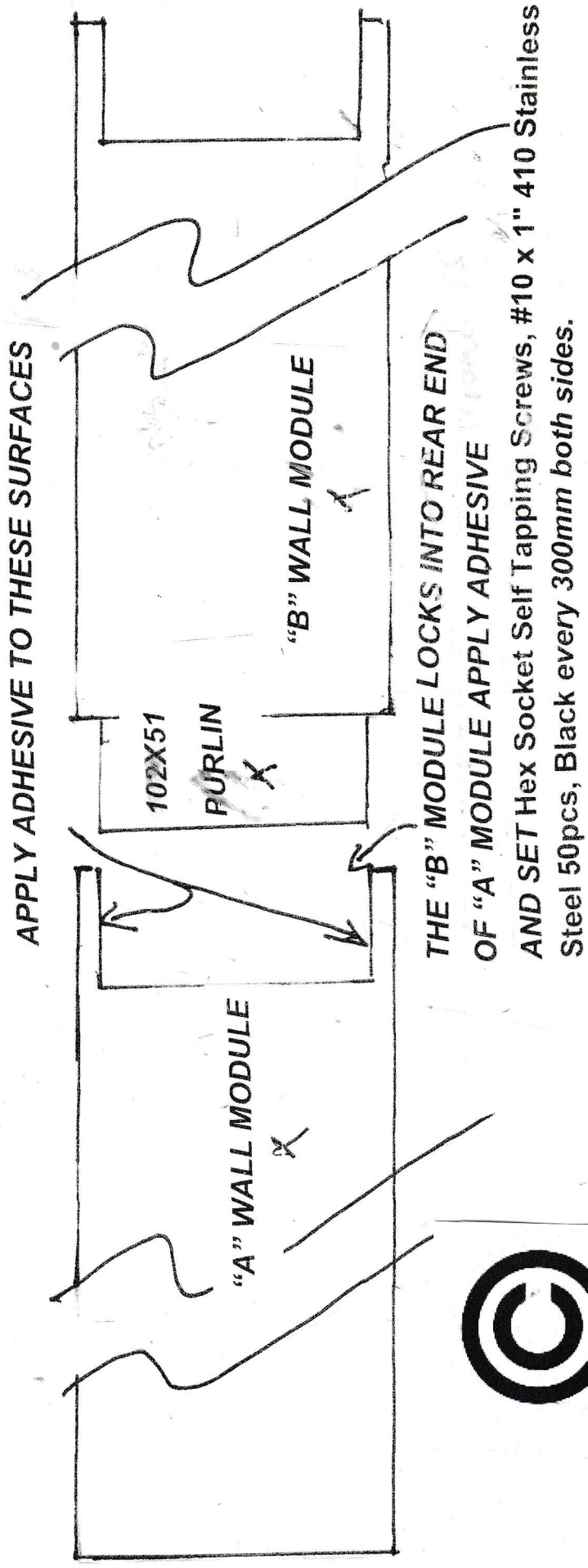
REFER TO SKETCH 11 FOR MODULE LOCATION ON CONCRETE FOUNDATION SLAB



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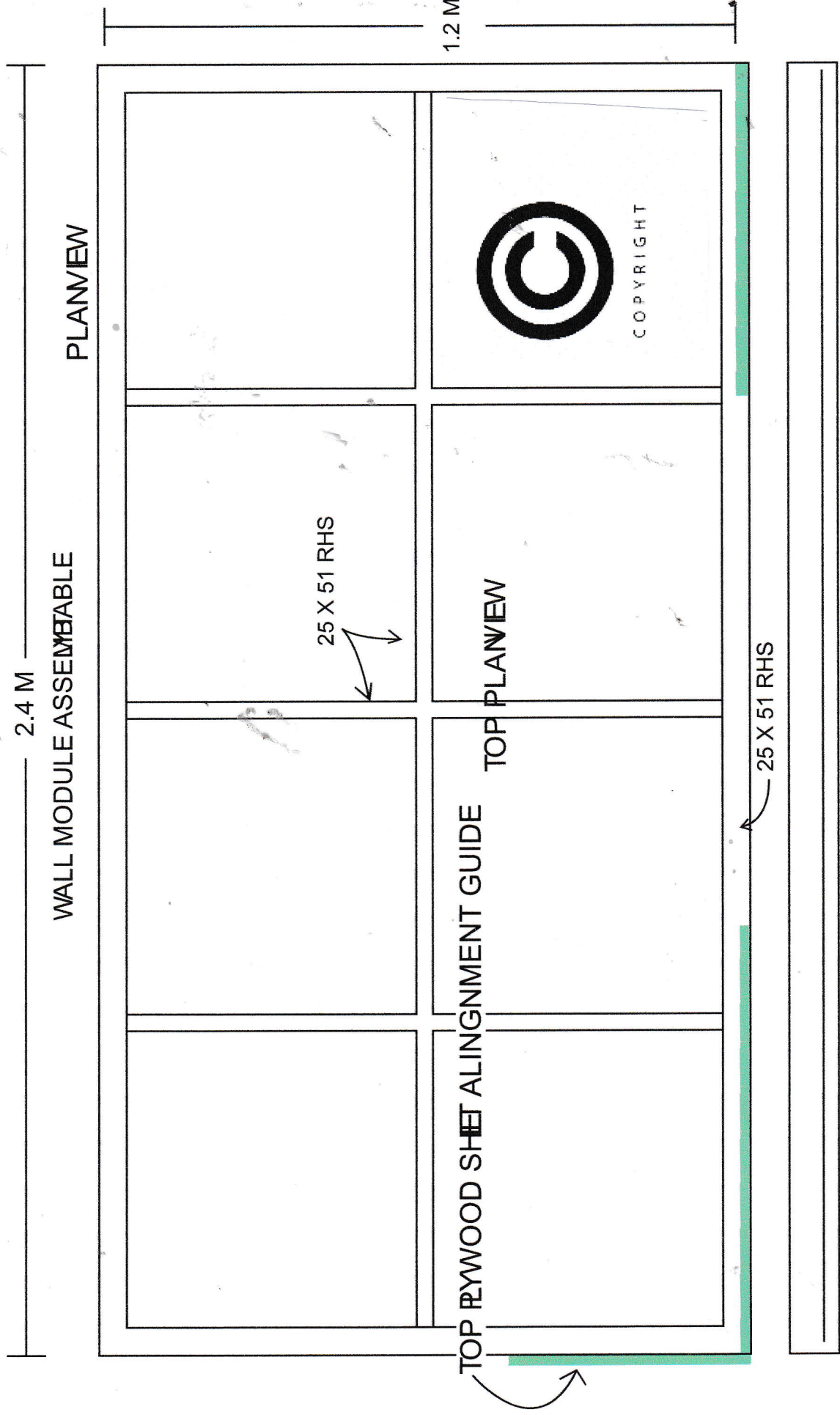
BIRDS-EYE VIEW OF HOW WALL MODULES LOCK TOGETHER

SKETCH 14

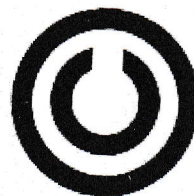
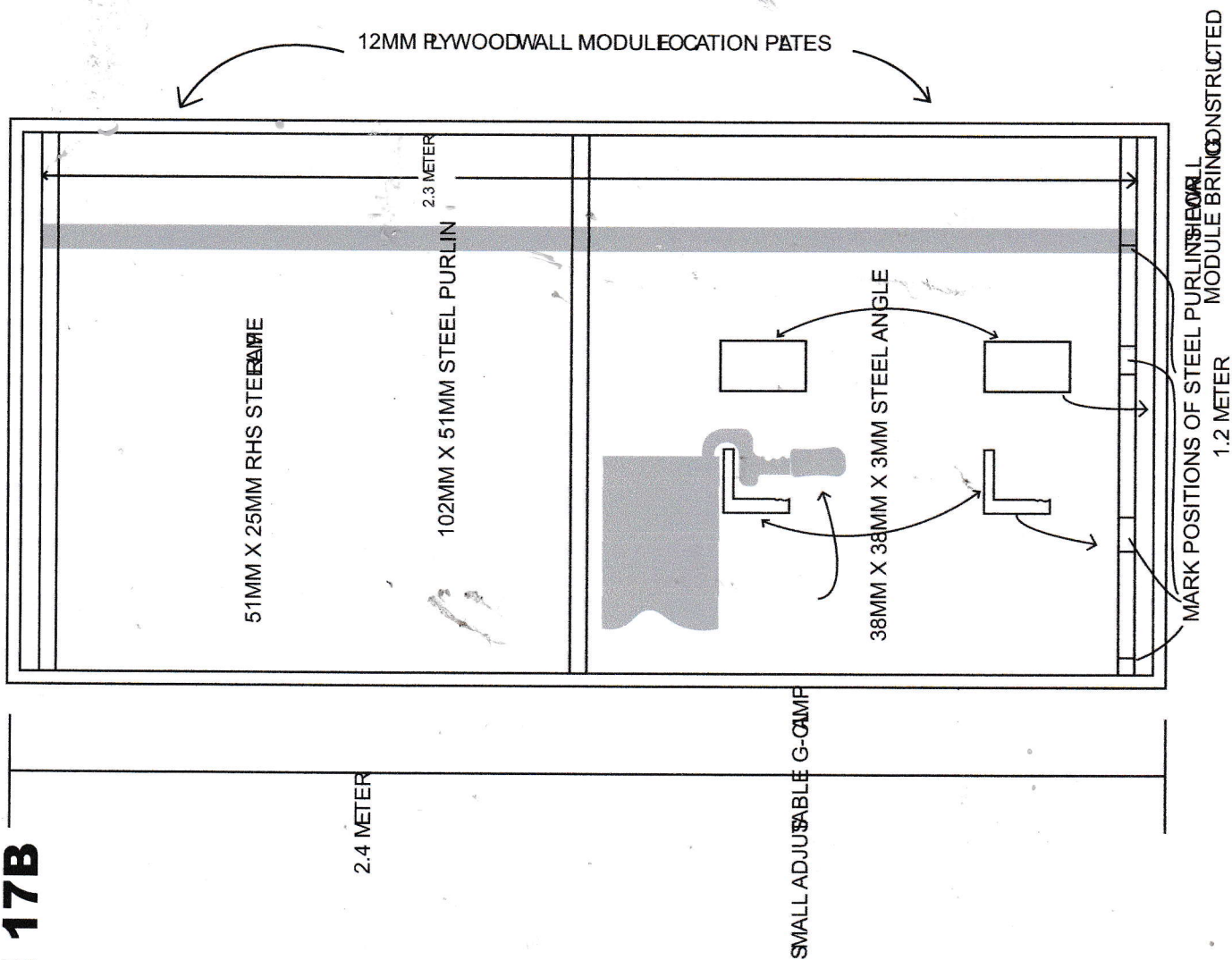


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SKETCH 17A

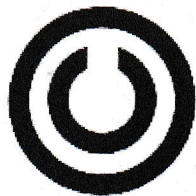
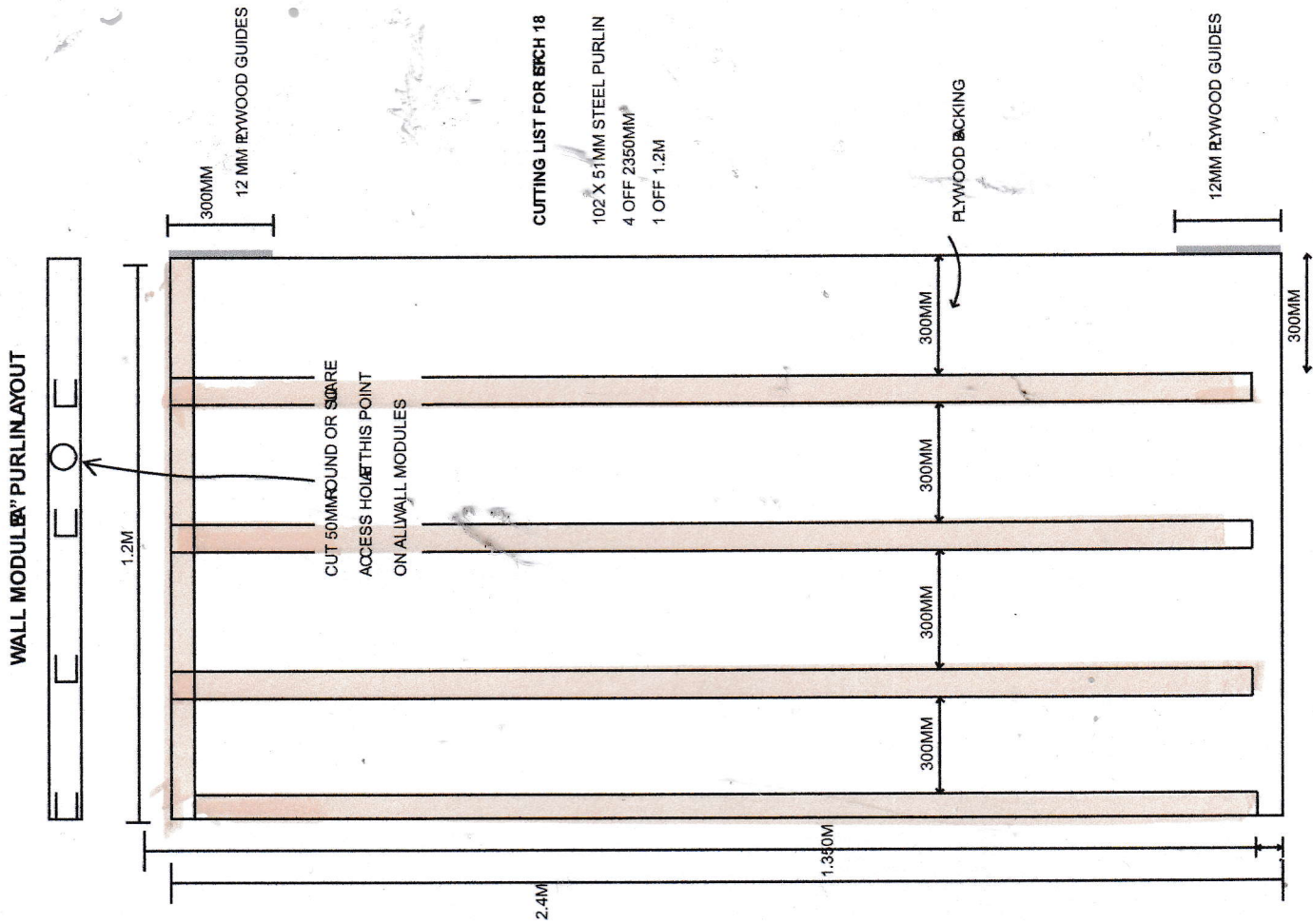


SKETCH 17B



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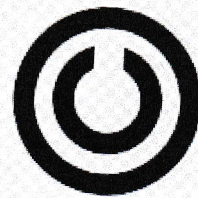
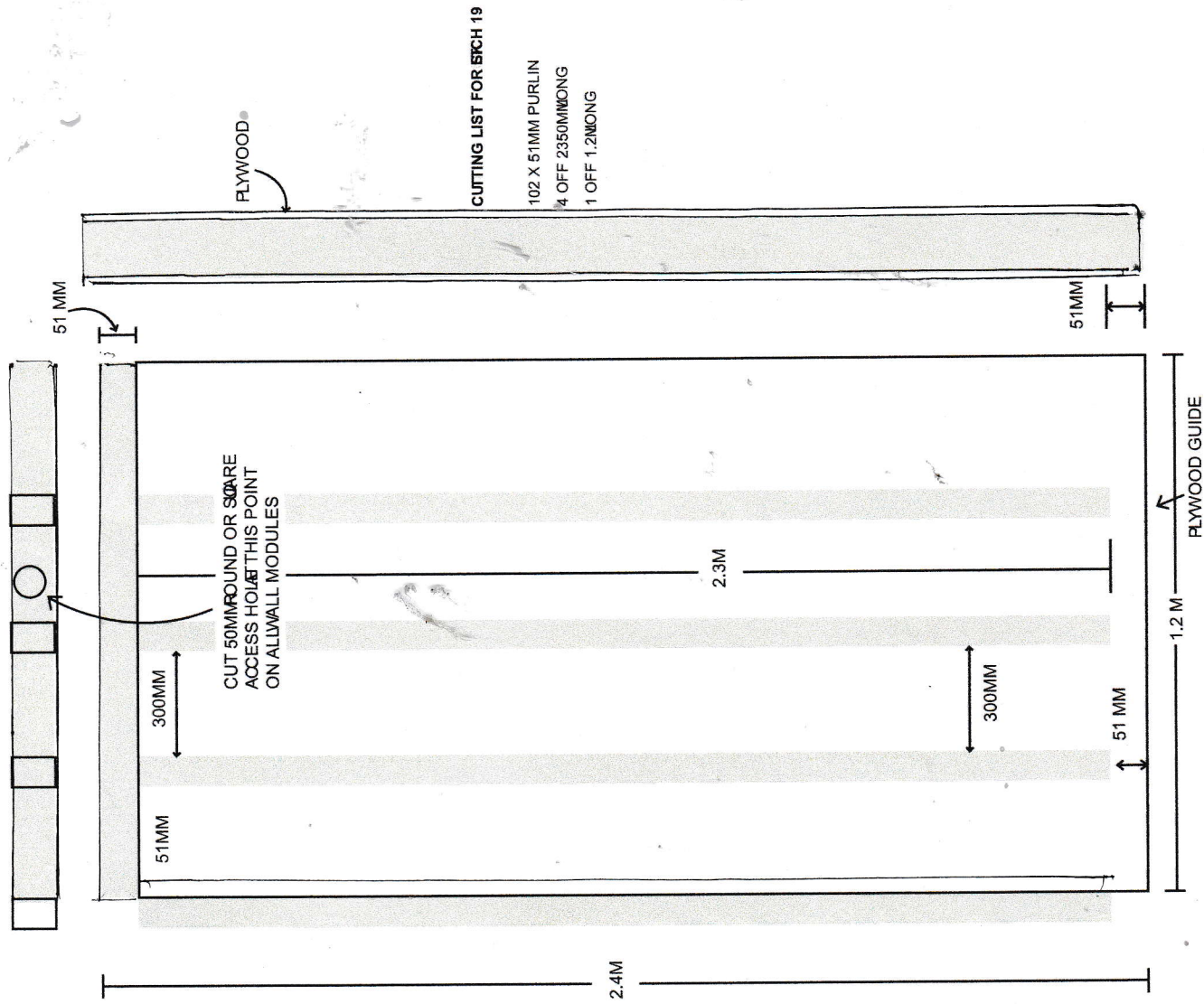
SKETCH 18



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SKETCH 19

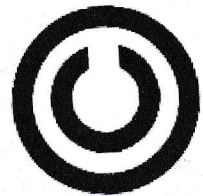
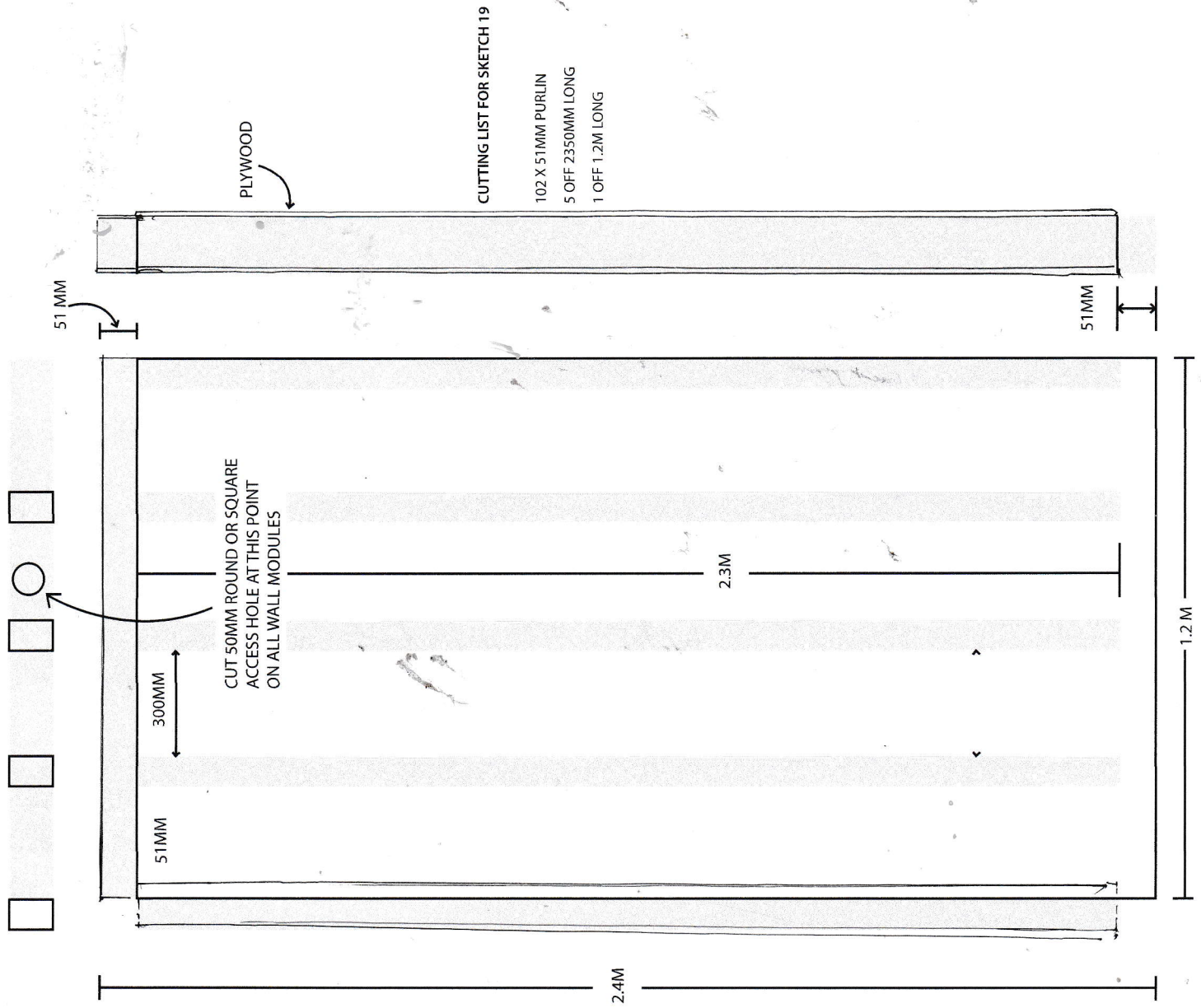
"B" WALL MODULE PURLIN LAYOUT



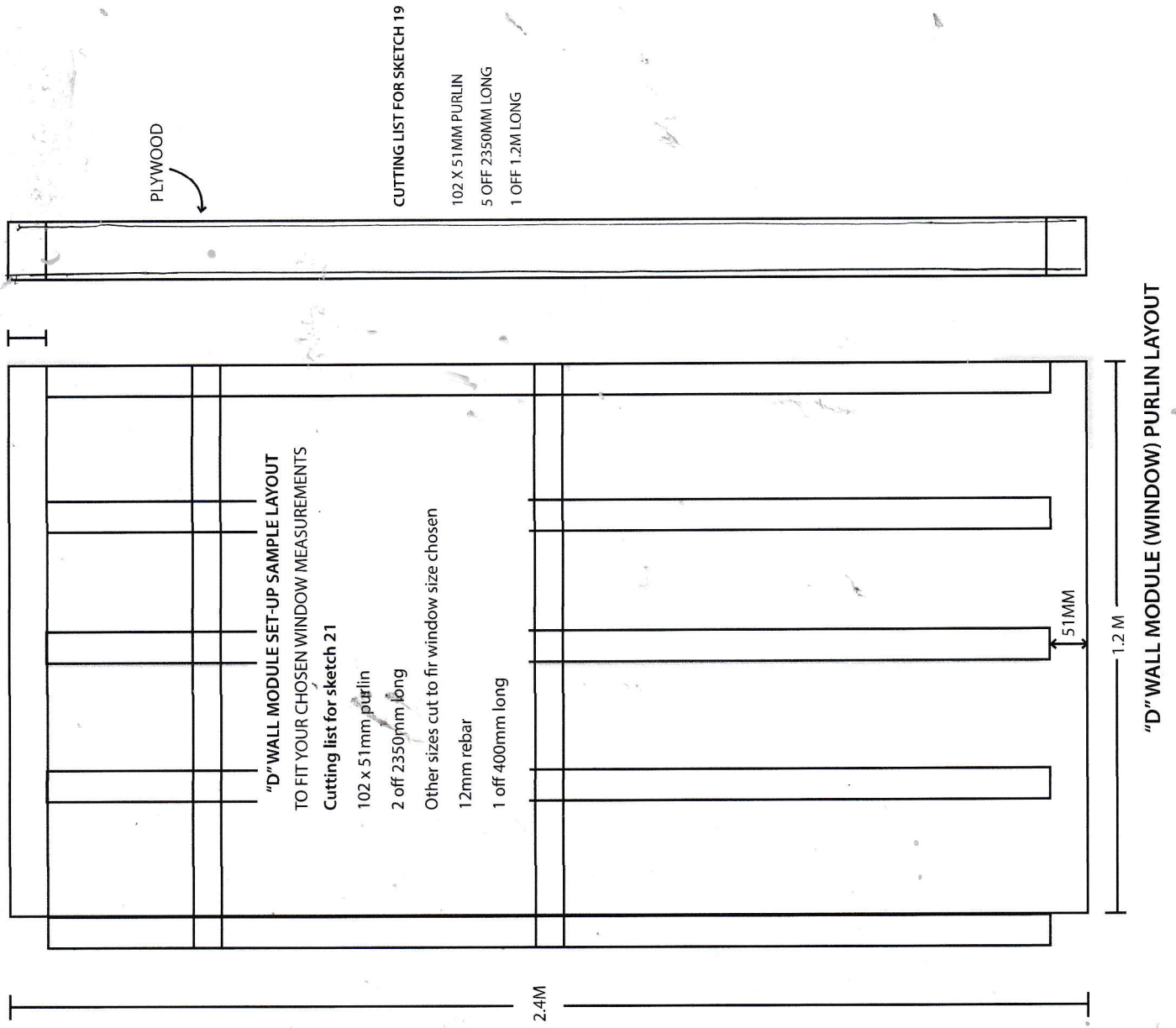
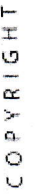
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SKETCH 20

"C" WALL MODULE PURLIN LAYOUT

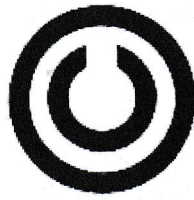
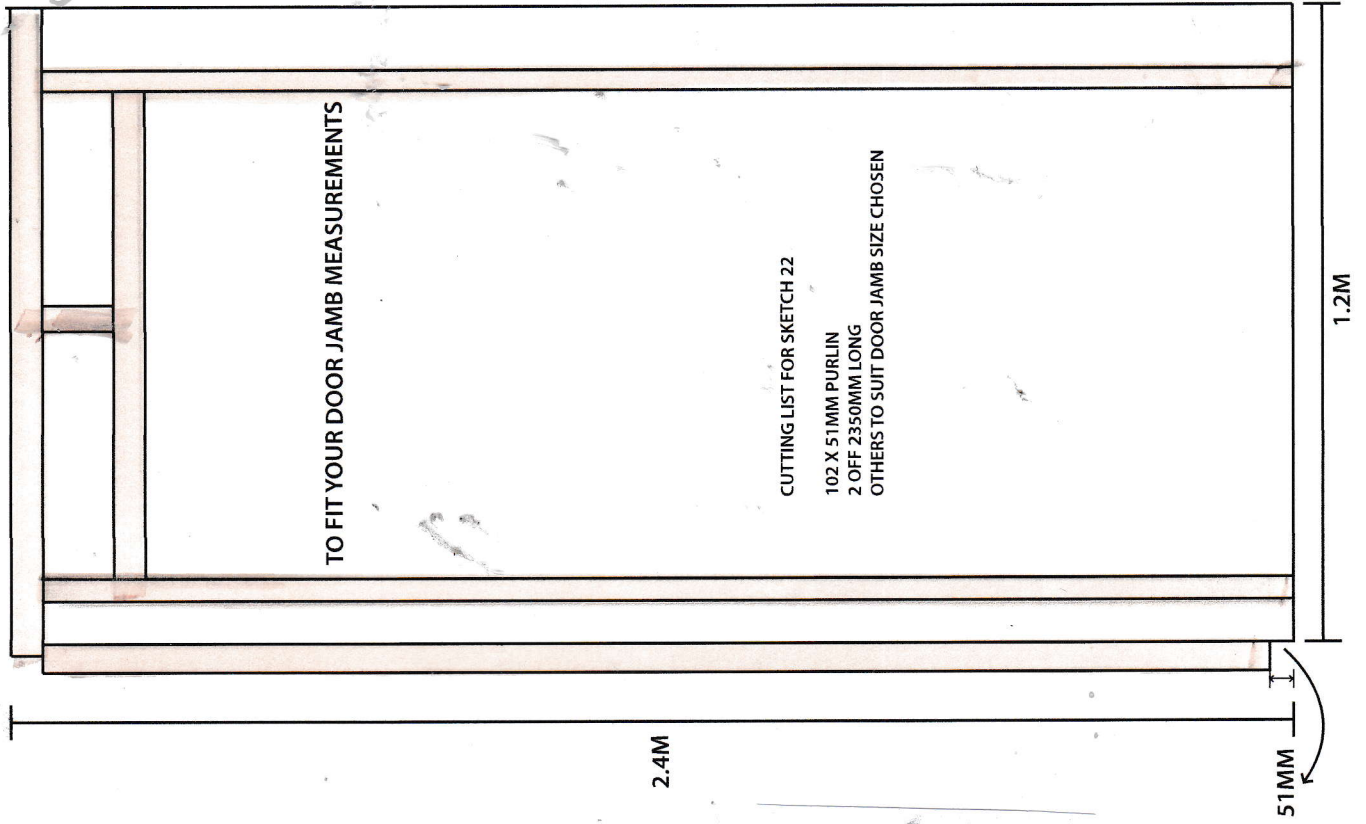


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SKETCH 22

"E" WALL MODULE (DOOR) PURLIN LAYOUT



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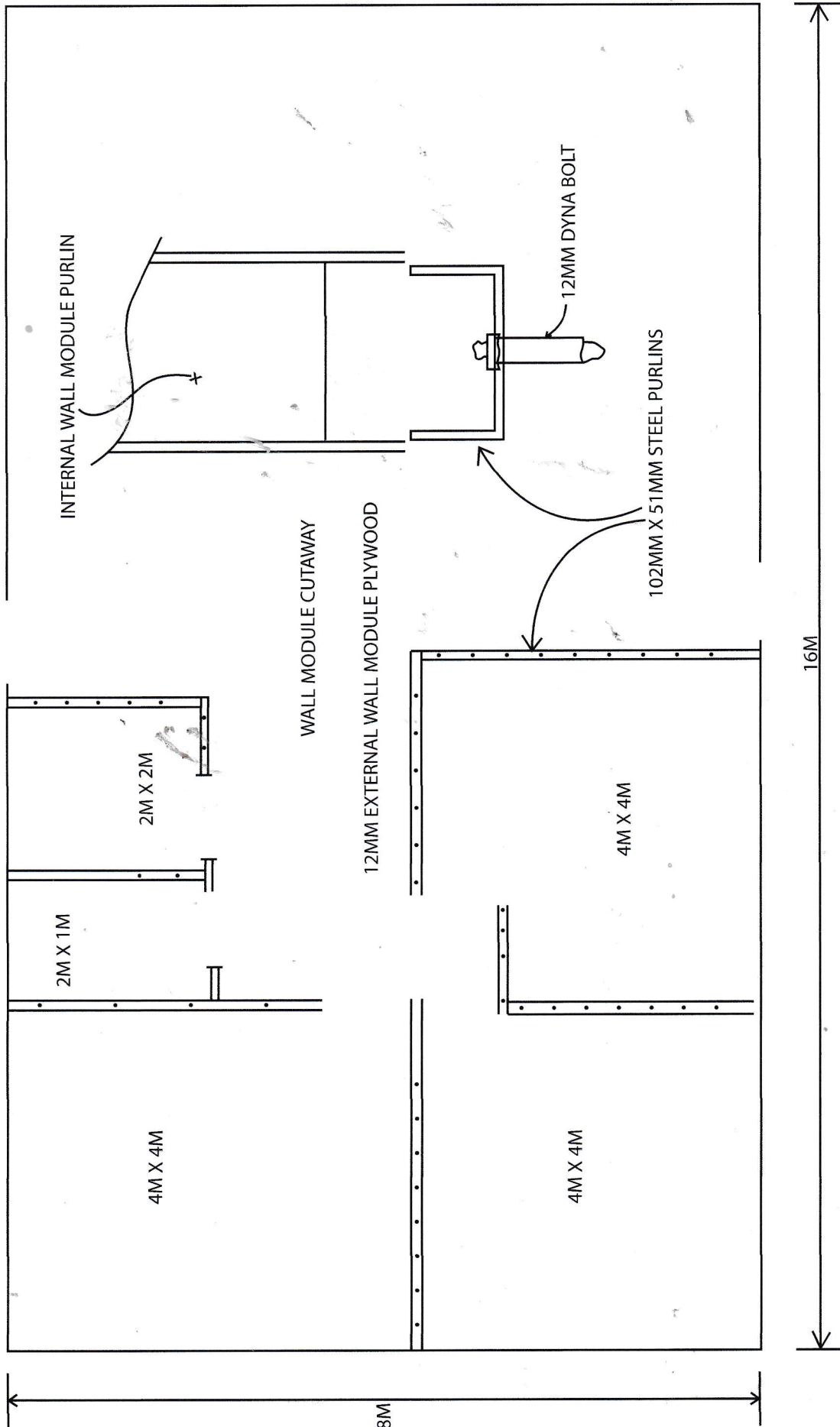
SKETCH 27

AVERAGE INTERNAL WALL LAYOUT

WALL FLOOR PURLINS



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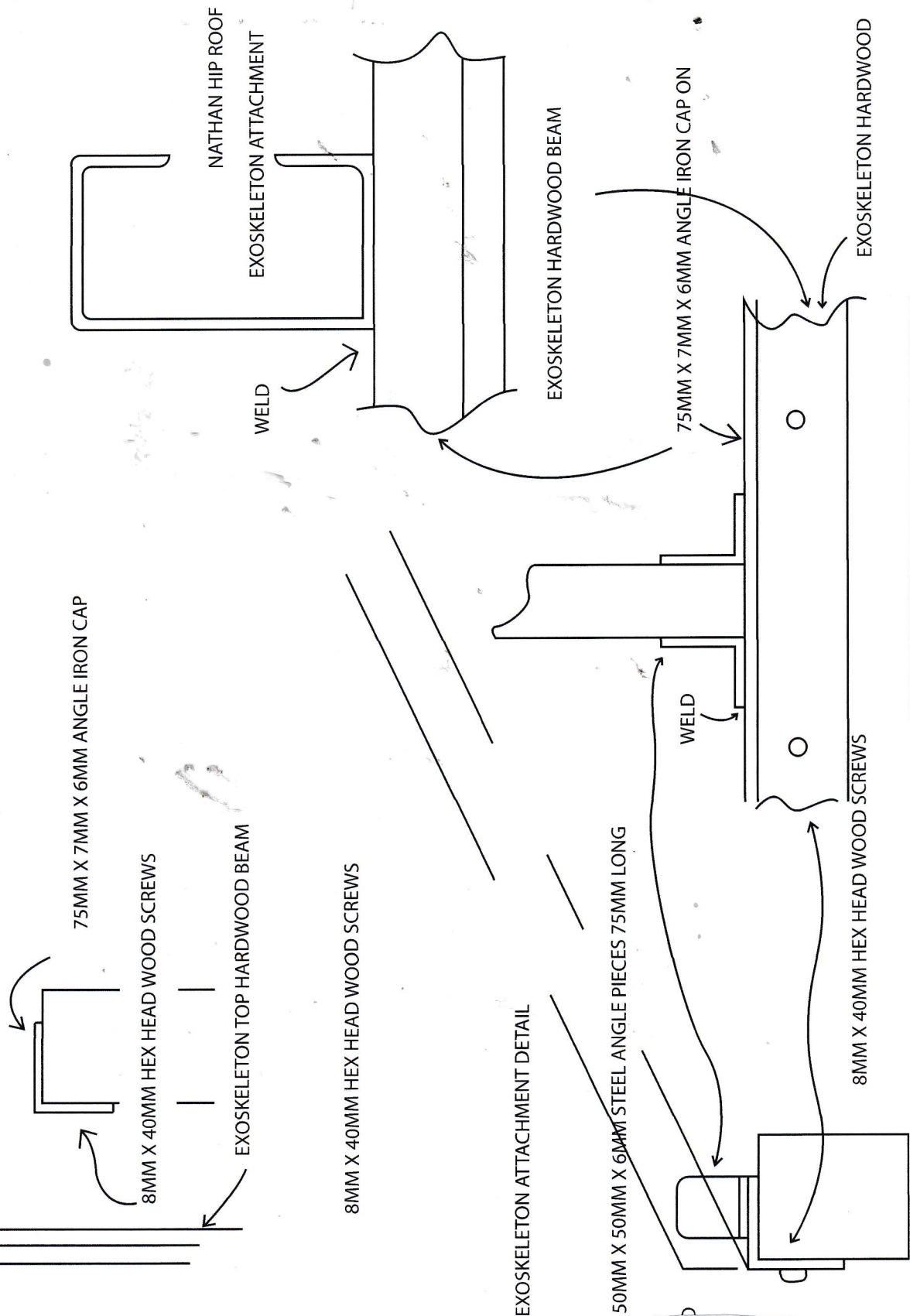
FLOOR OPTION 3

SKETCH 28

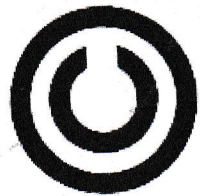
EXOSKELETON HARDWOOD BEAM TOP DETAIL

METHOD OF ATTACHING STEEL HIP FRAMES TO EXOSKELETON BEAM

FOR BOTH NATHAN HIP ROOF AND THE RHS HIP ROOF



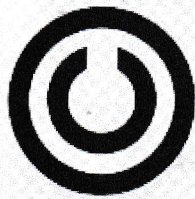
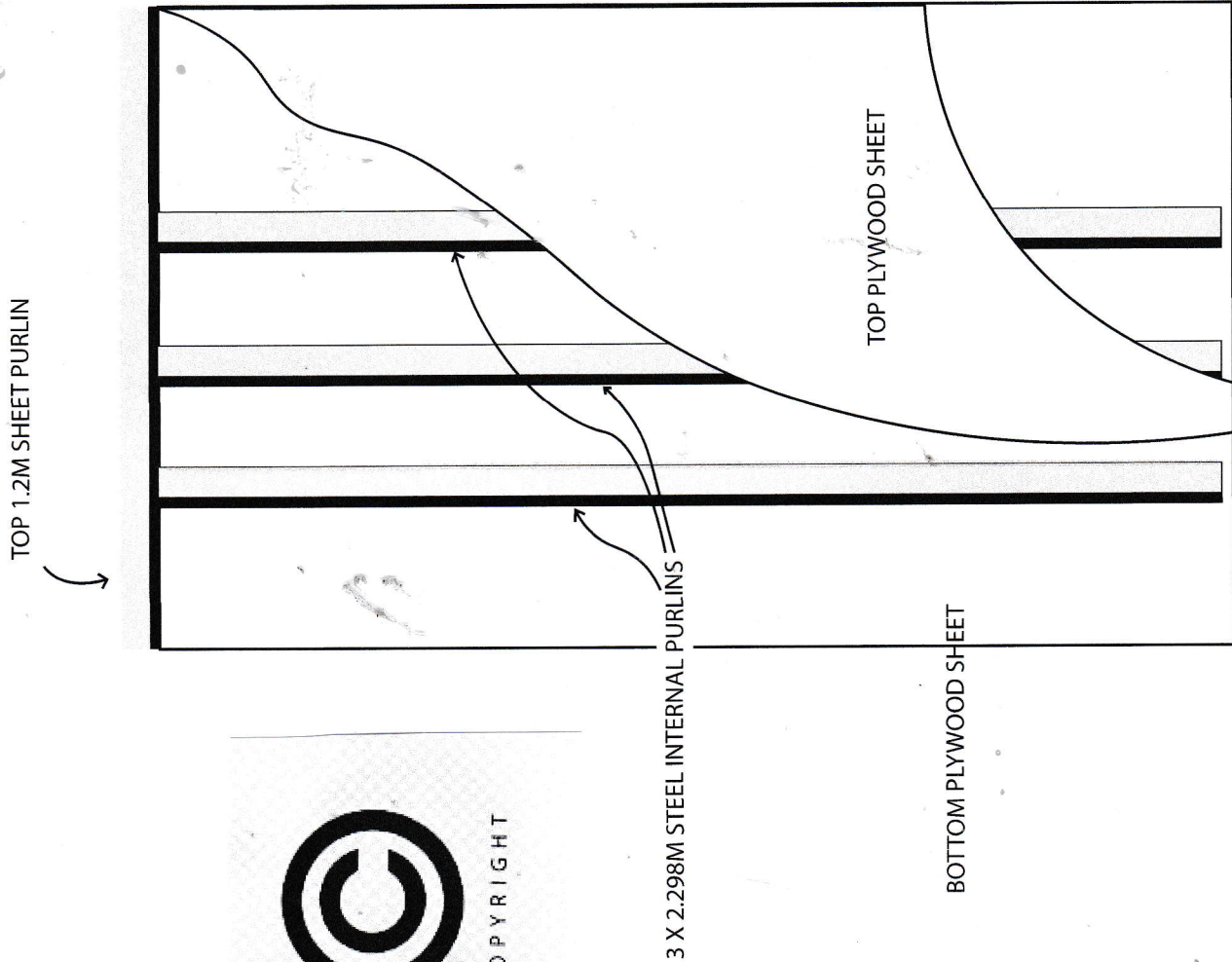
RHS HIP ROOF FRAME TO EXOSKELETON ATTACHMENT DETAIL



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SKETCH 29

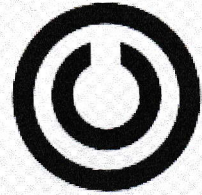
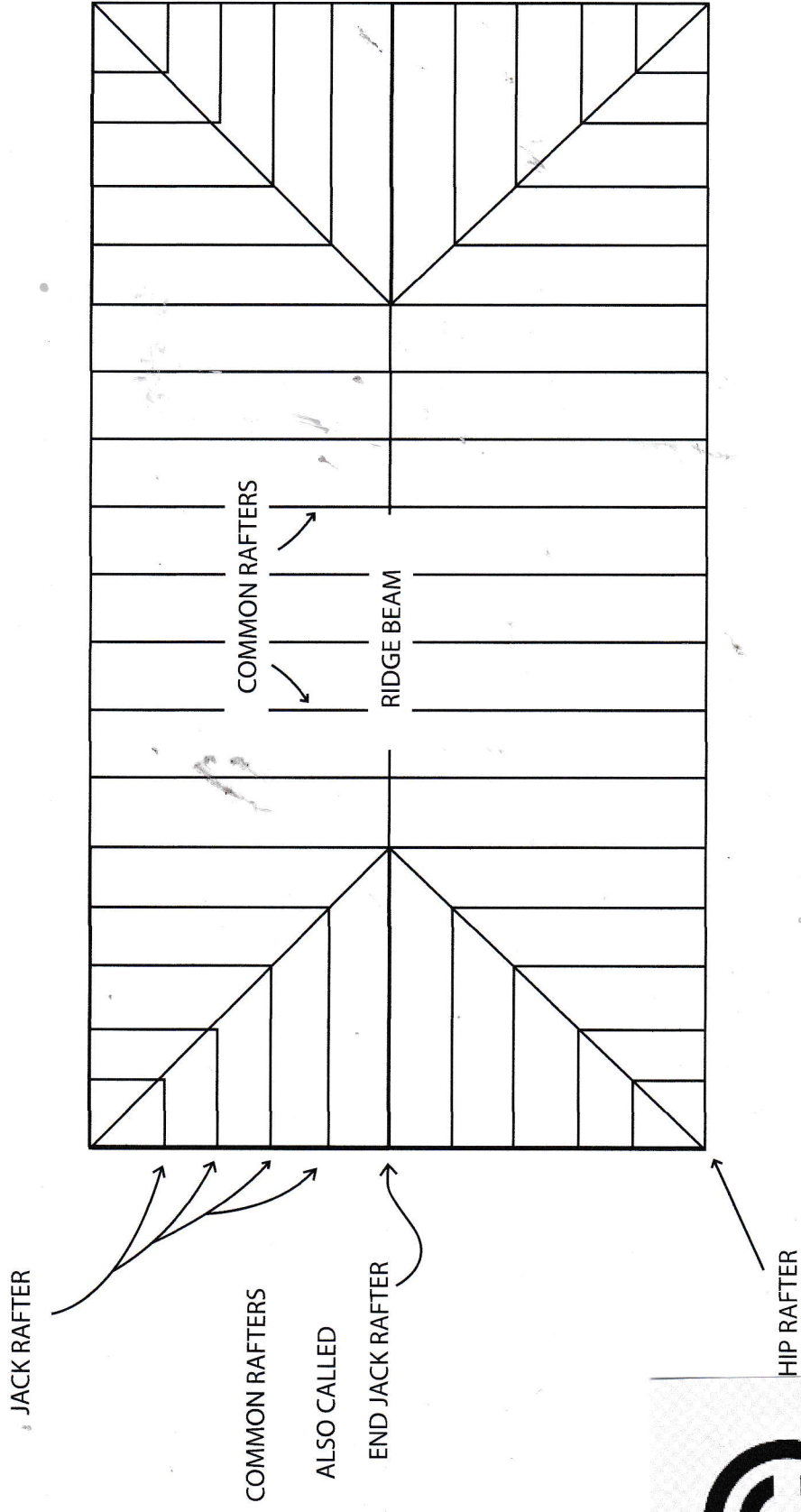
CUTWAY OF "B" WALL MODULE



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SKETCH 30

RHS HIP ROOF FRAME 16.668M X 8.668M COMPONENT PLAN



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SKETCH 31

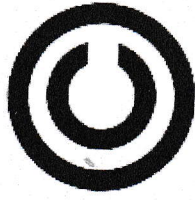
BANDHERA BUNGALOW GABLE ROOF

LENGTH O/ALL: 16.668M

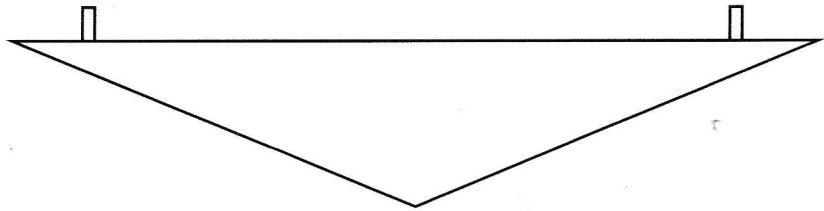
WIDTH O'ALL: 8.668M

NUMBER OF TRUSHES: 15

PITCHES 5.12 ANGLE 22.62 DEGEES



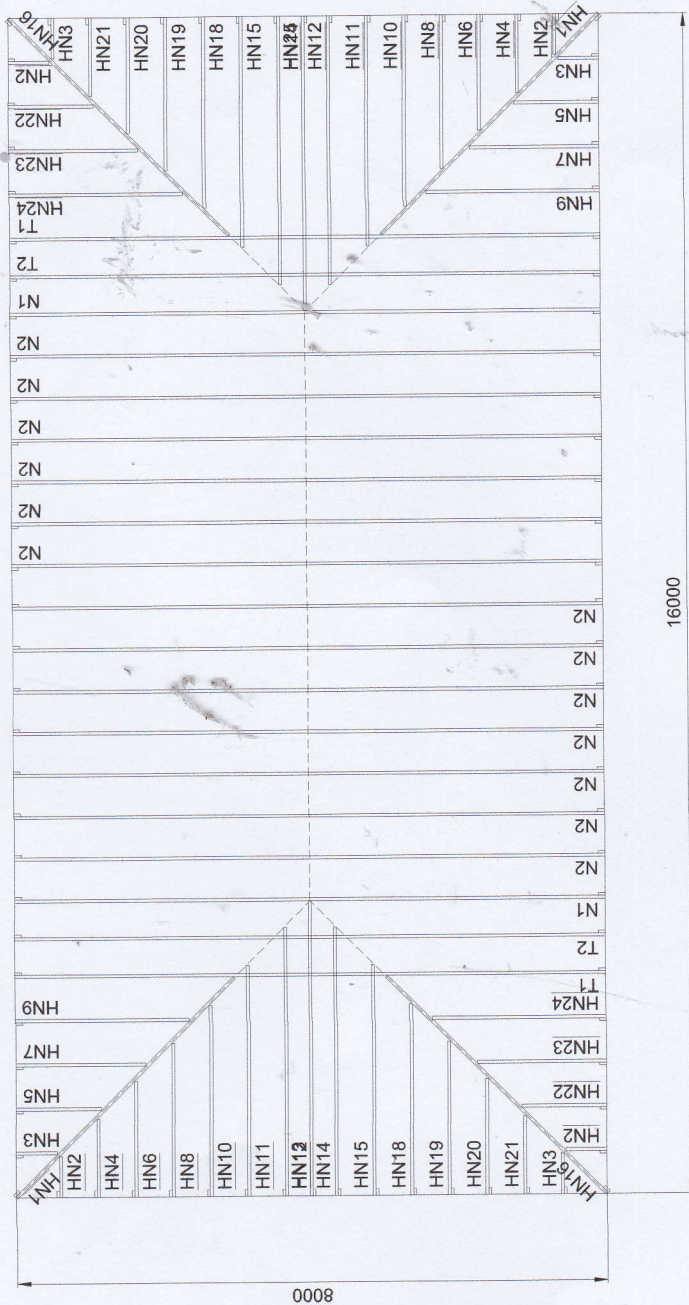
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Truss Design Summary

System Name	FRAMECAD_FT_m
Design Code	AS/NZS 4600:2018
Loading Code	AS/NZS 1170:2021
Roof Load	SHEET
Wind Speed	W66C
Snow Load	0.00
Roof Pitch	15.944
Roof Pitch	22.000
BC Restraints	600

SKETCH 31B



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JOB DETAILS



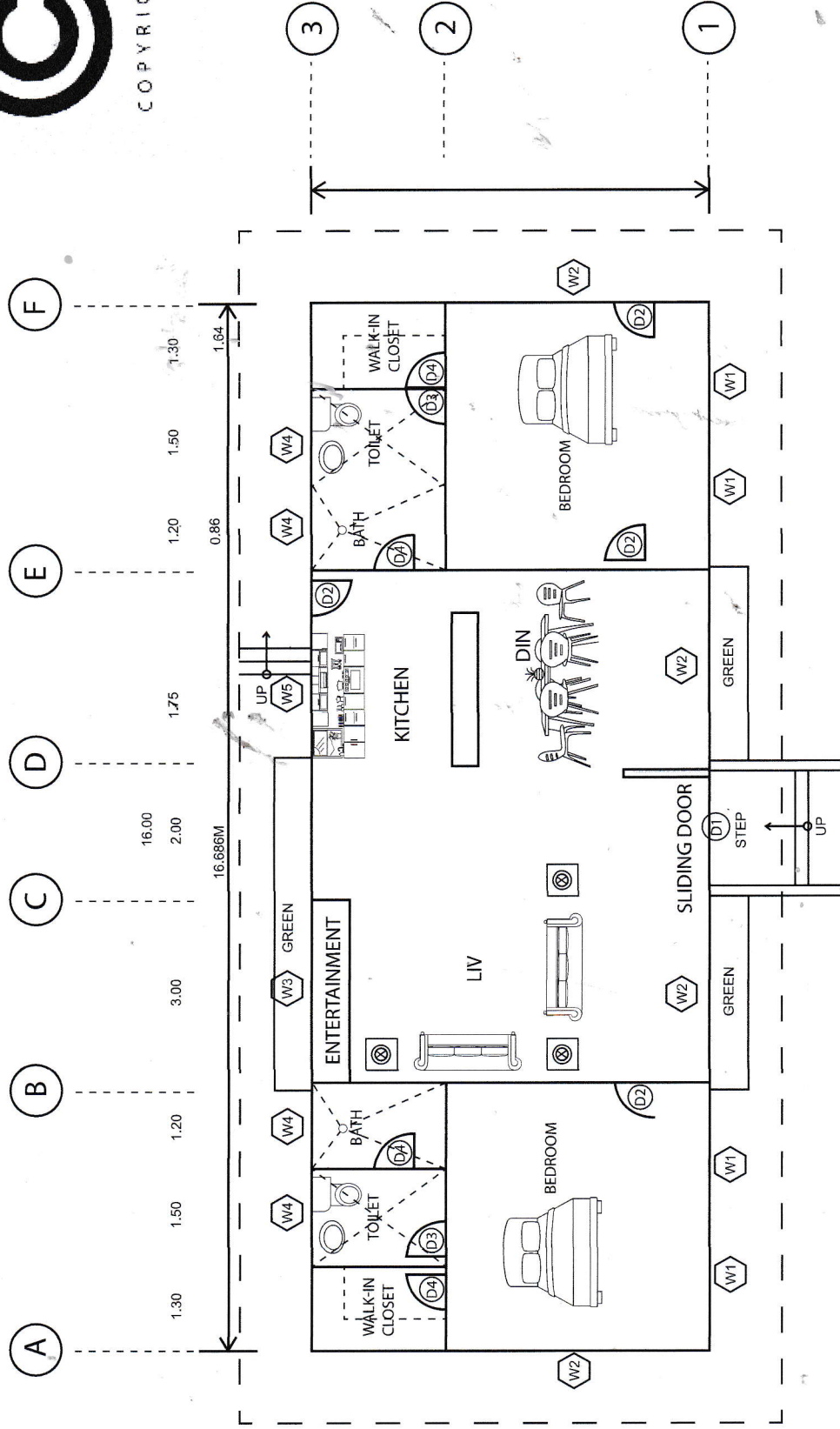
REVISION	JOB REFERENCE	SCALE	DATE DRAWN	DRAWN
		1 : 100	30-01-2025	Framecad
		ON	VIEW NAME	DWG FILE
		A4-Sheet	1 of 6	CyclonicRoof

FLOOR PLAN FOR ORIGINAL "BANDERA" BUNGALOW BUILT IN THE PHILIPPINES

SKETCH 32



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FLOOR PLAN

SCALE

FLOOR OPTION 2

SKETCH 33

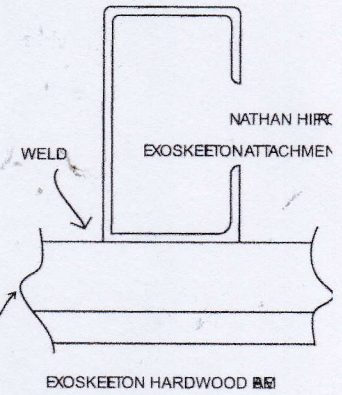
EXOSKEETON HARDWOOD ~~85~~ TOP DETAIL

METHOD OF ATTACHING STEEL ~~HIP~~ ROOF TO EXOSKEETON B&M

FOR BOTH NATHAN HIP ROOF AND THE RHS HIP ROOF



8MM X 40MM HEX HEAD WOOD SCREWS



RHS HIP ROOF ~~FRAME~~ TO EXOSKEETON ATTACHMENT ~~DETAIL~~

50MM X 50MM X 6MM STEEL ANGLE PIECES ~~15MM~~

WELD

WELD

75MM X 7MM X 6MM ANGLE ON CAP ON

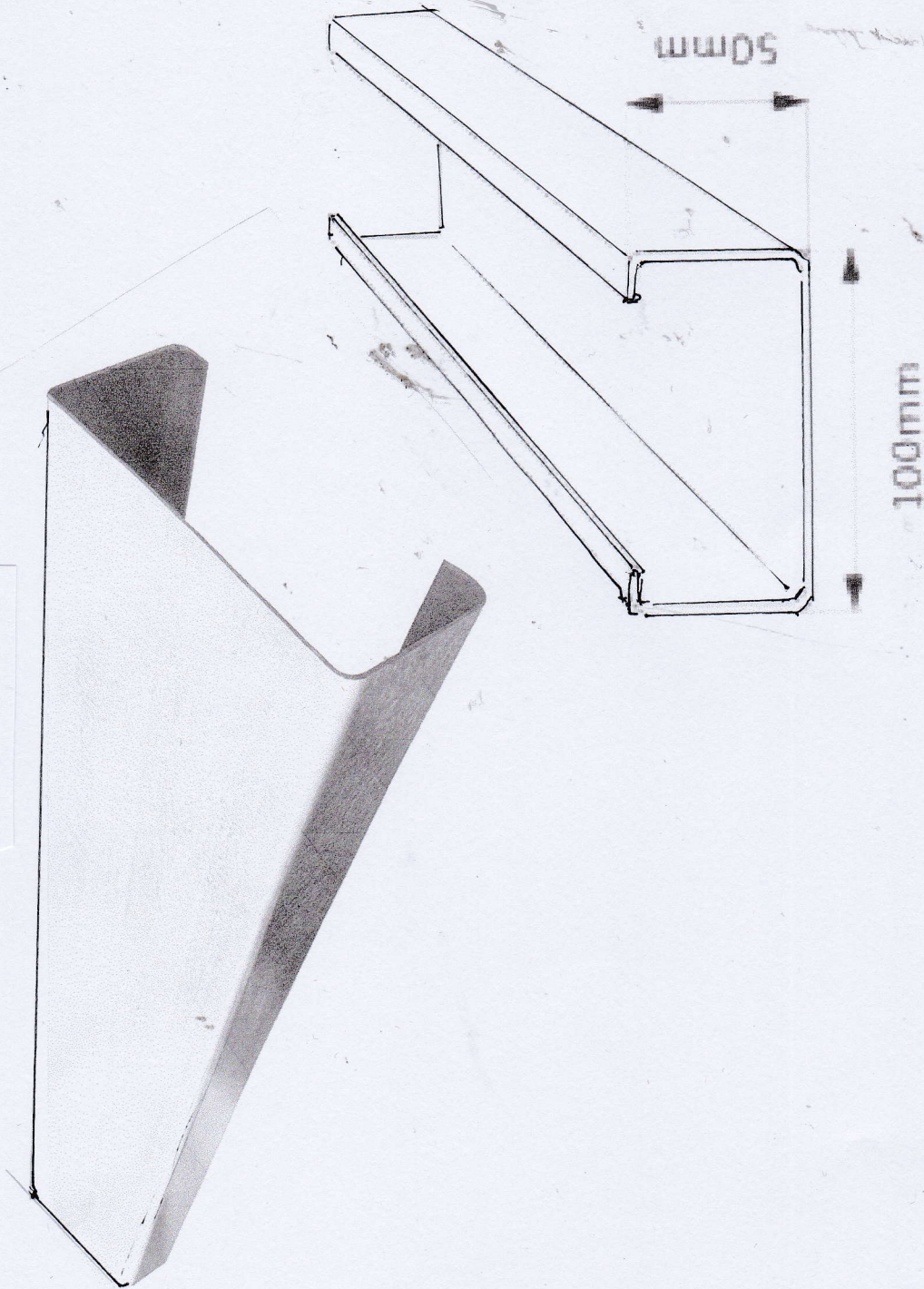
8MM X 40MM HEX HEAD WOOD SCREWS

EXOSKEETON HARDWOOD



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SKETCH 34



GALVANISED STEEL PURLINS 100MM WEB, 50MM FLANGE, 1.5MM THICKNESS

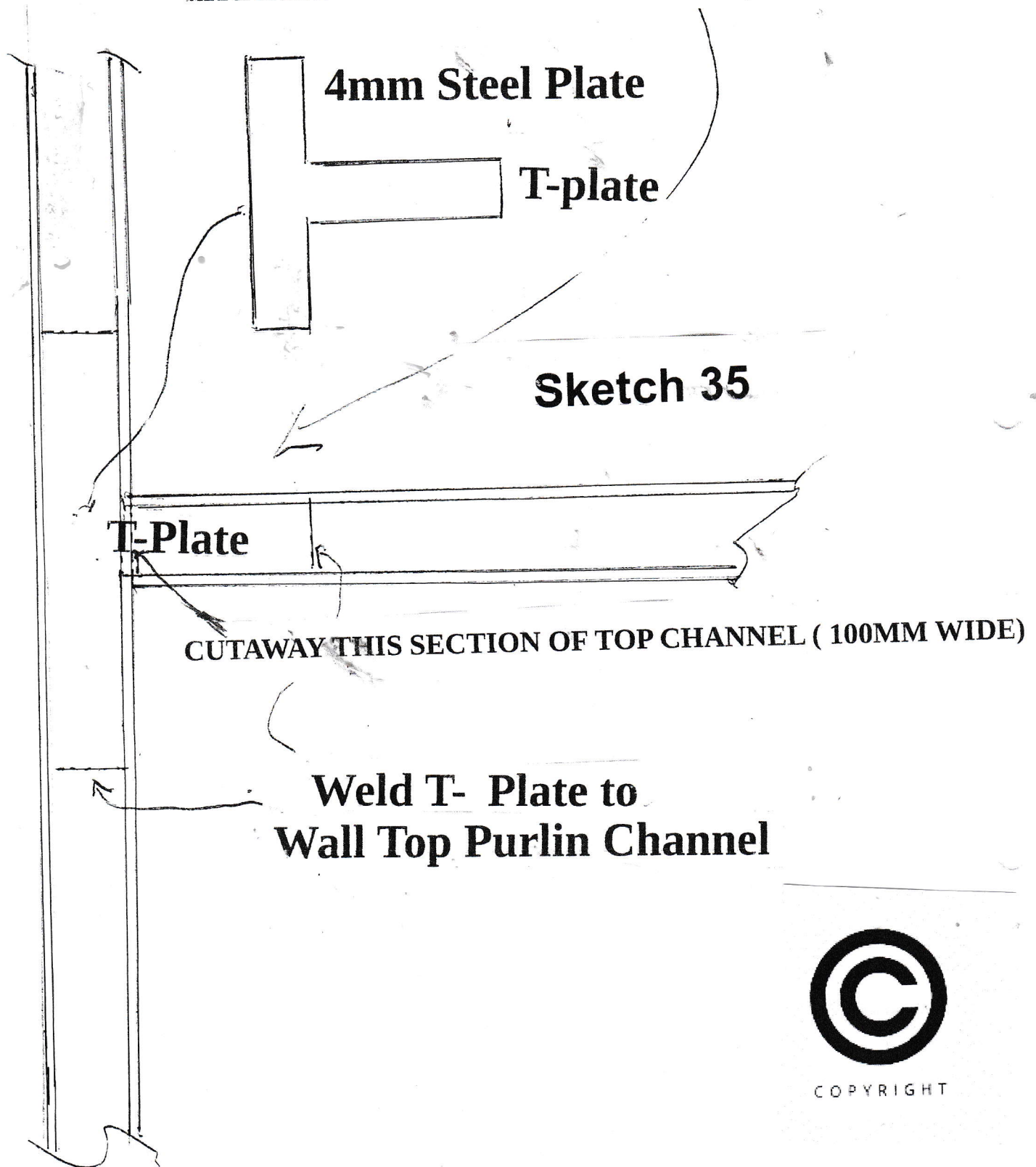
USE THIS SIZE IN ALL WALL MODULES

WALL MODULE STEEL PURLIN



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JOINING INTERNAL WALLS TO EXTERNAL WALLS

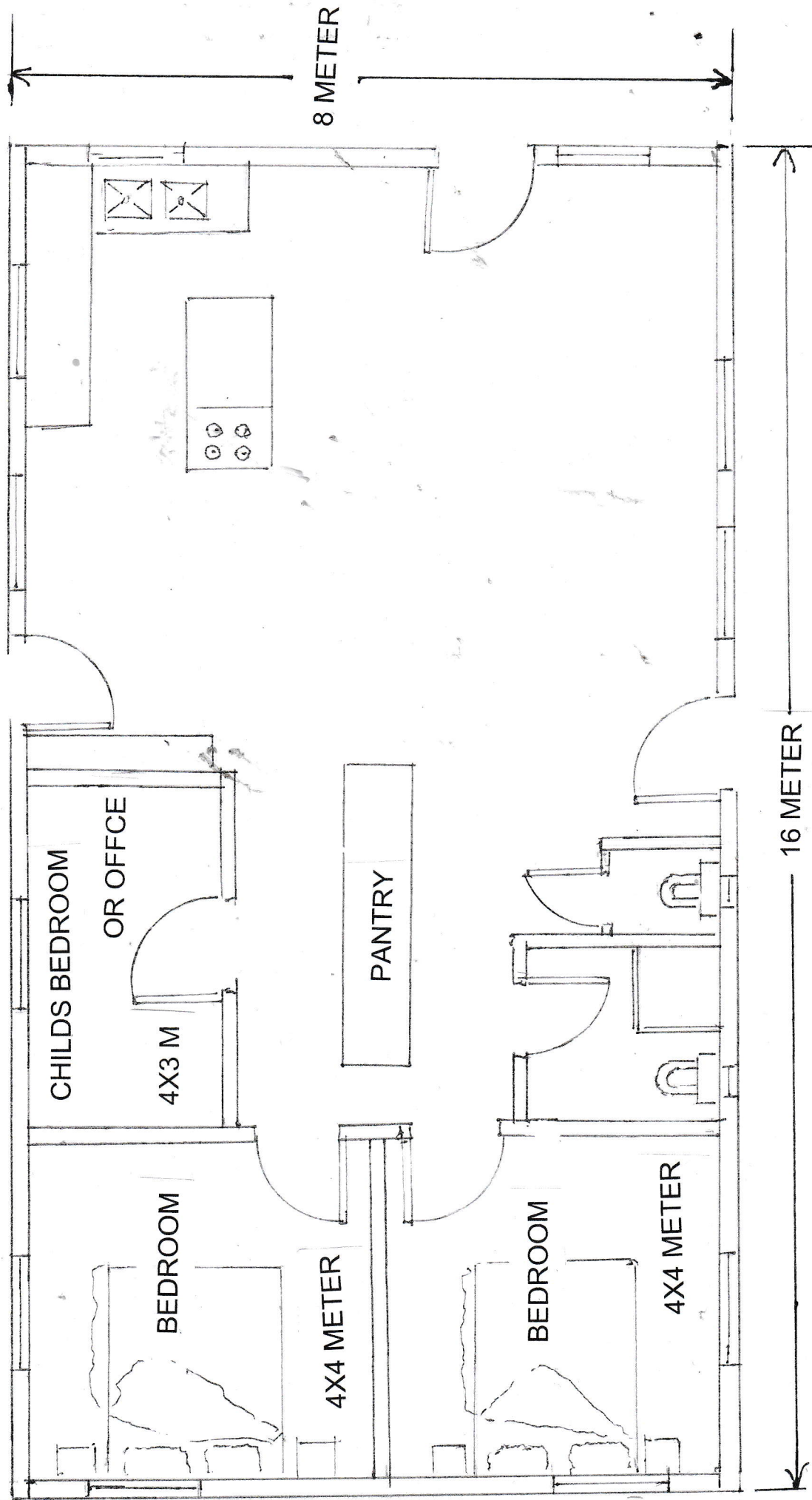


**The 'WARREGO' TYPHOON
PROOF BUNGALOW**

FLOORPLAN FOR BOTH 'BANDERA' BUNGALOW AND

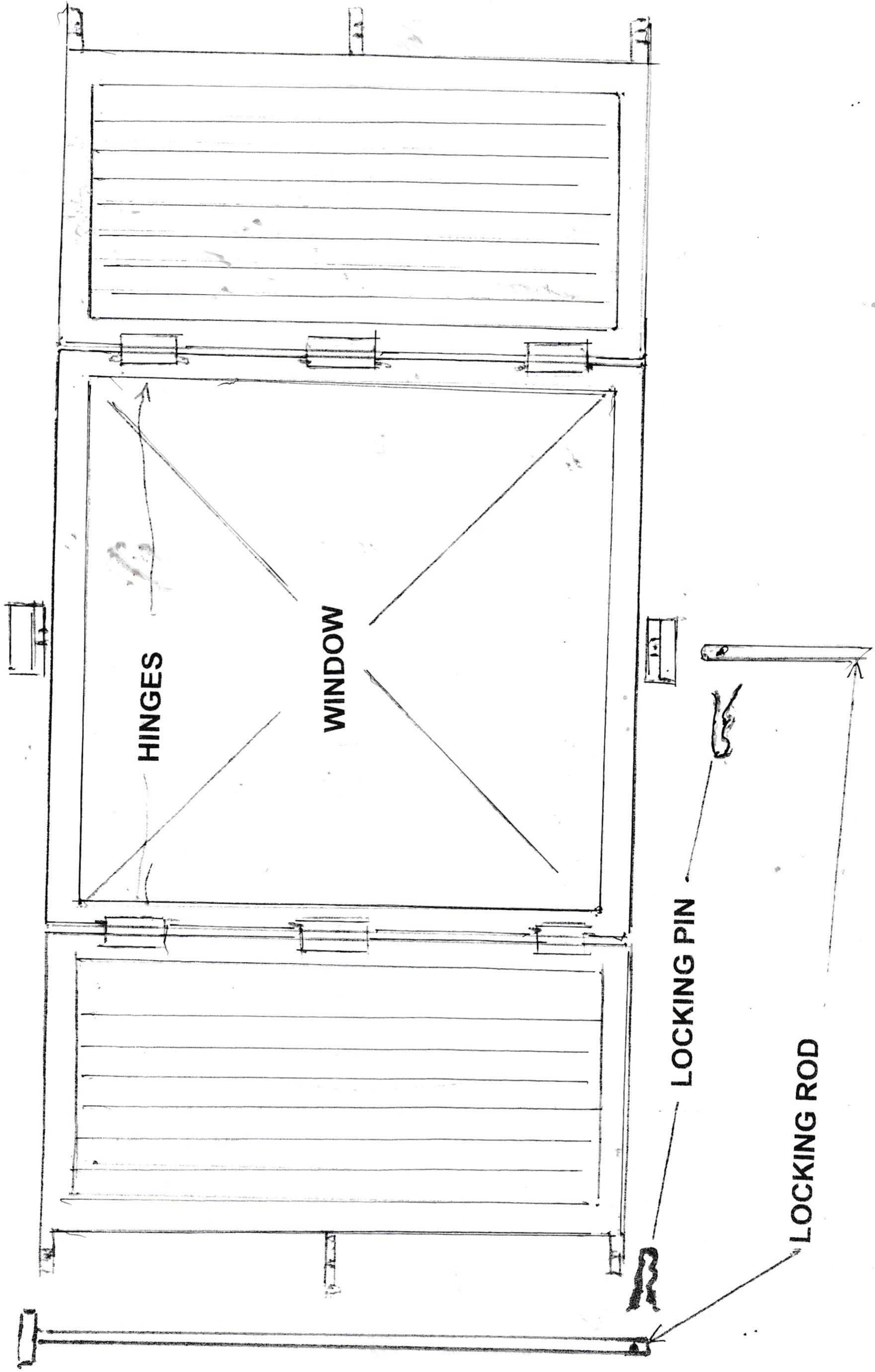
The TYPHOON PROOF 'WARREGO' BUNGALOW

SKETCH 36



FLOOR OPTION 1

ROBUST STORM TIMBER SHUTTERS



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