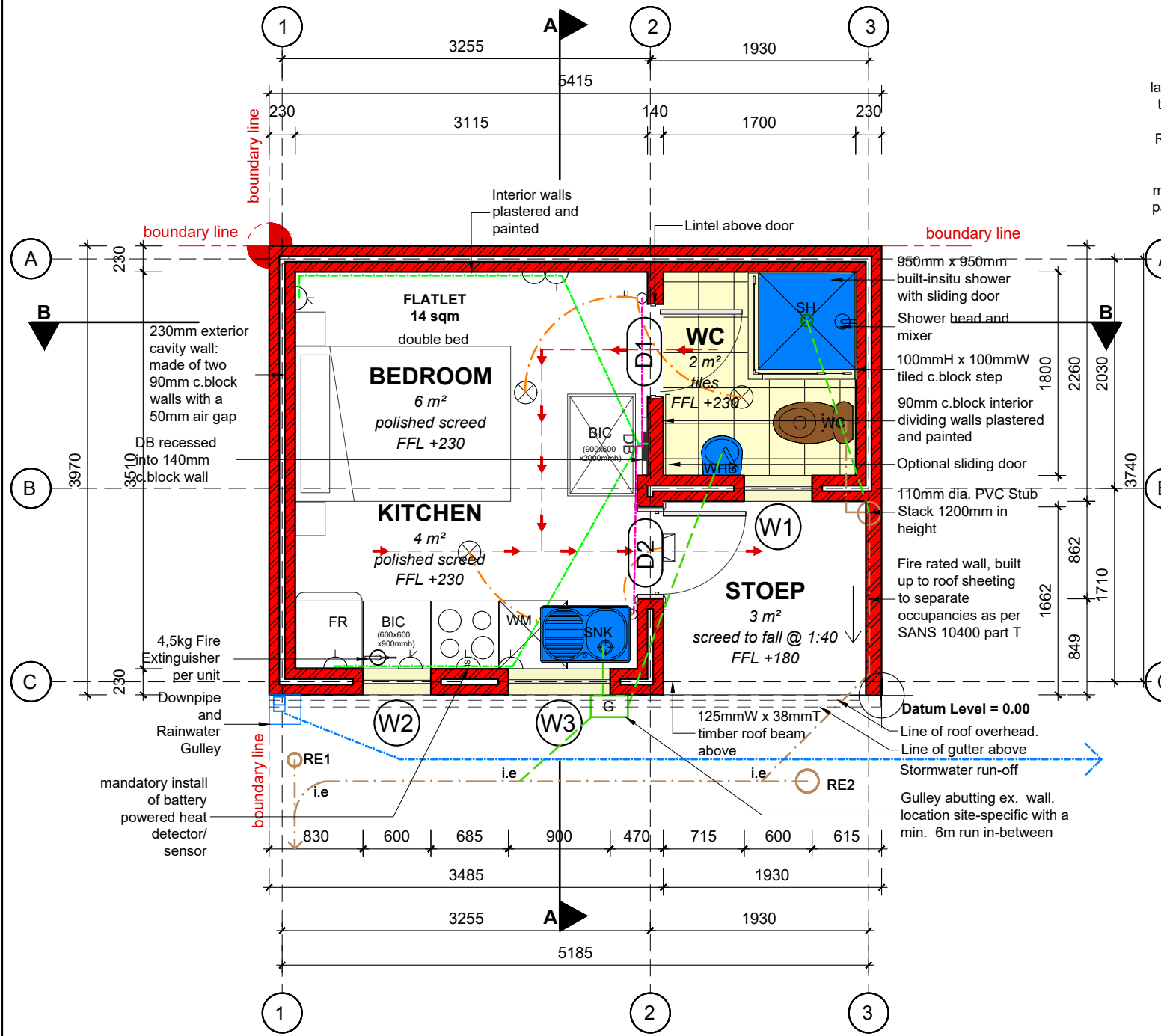


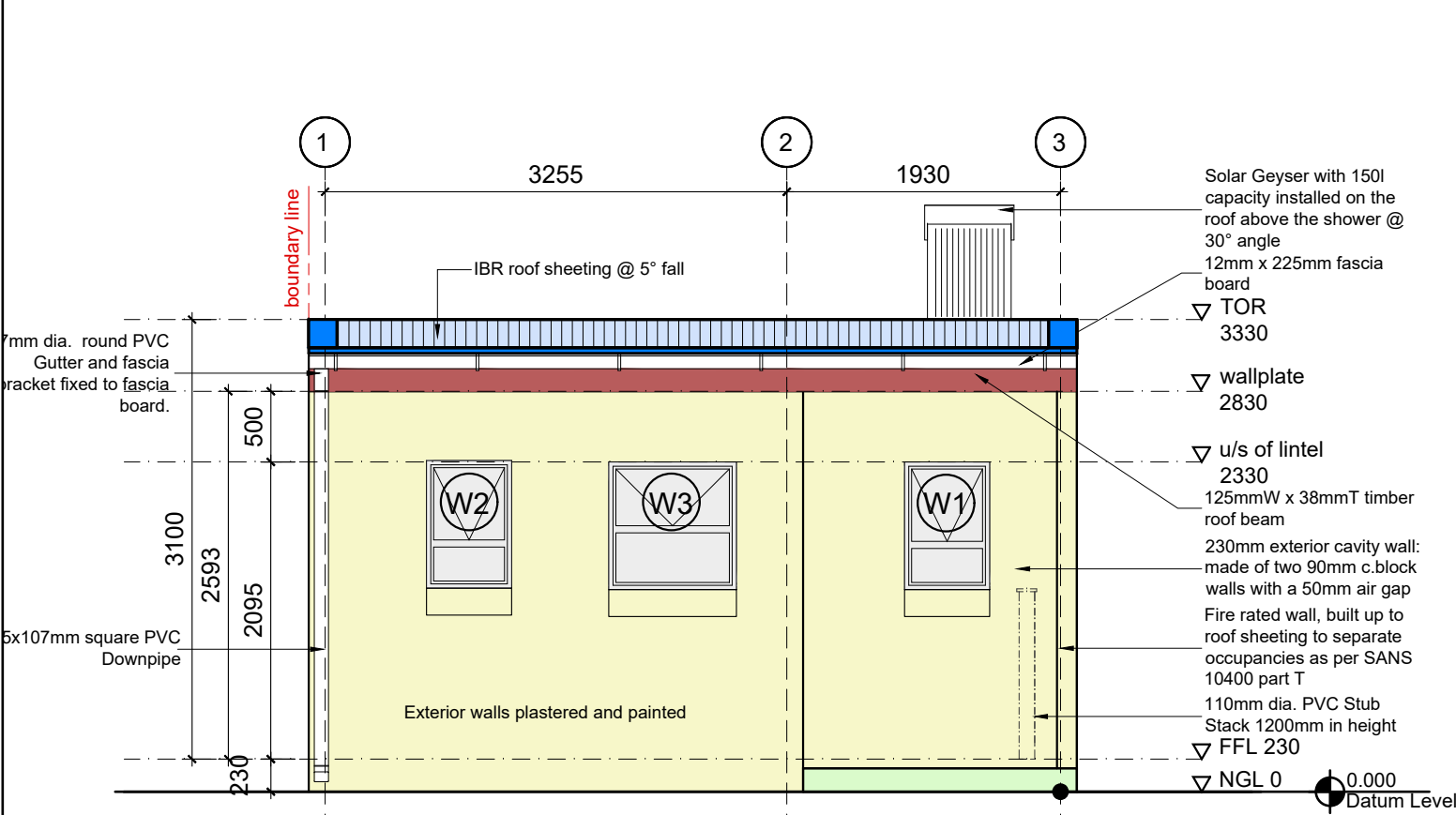


GROUND FLOOR

SCALE 1 : 50

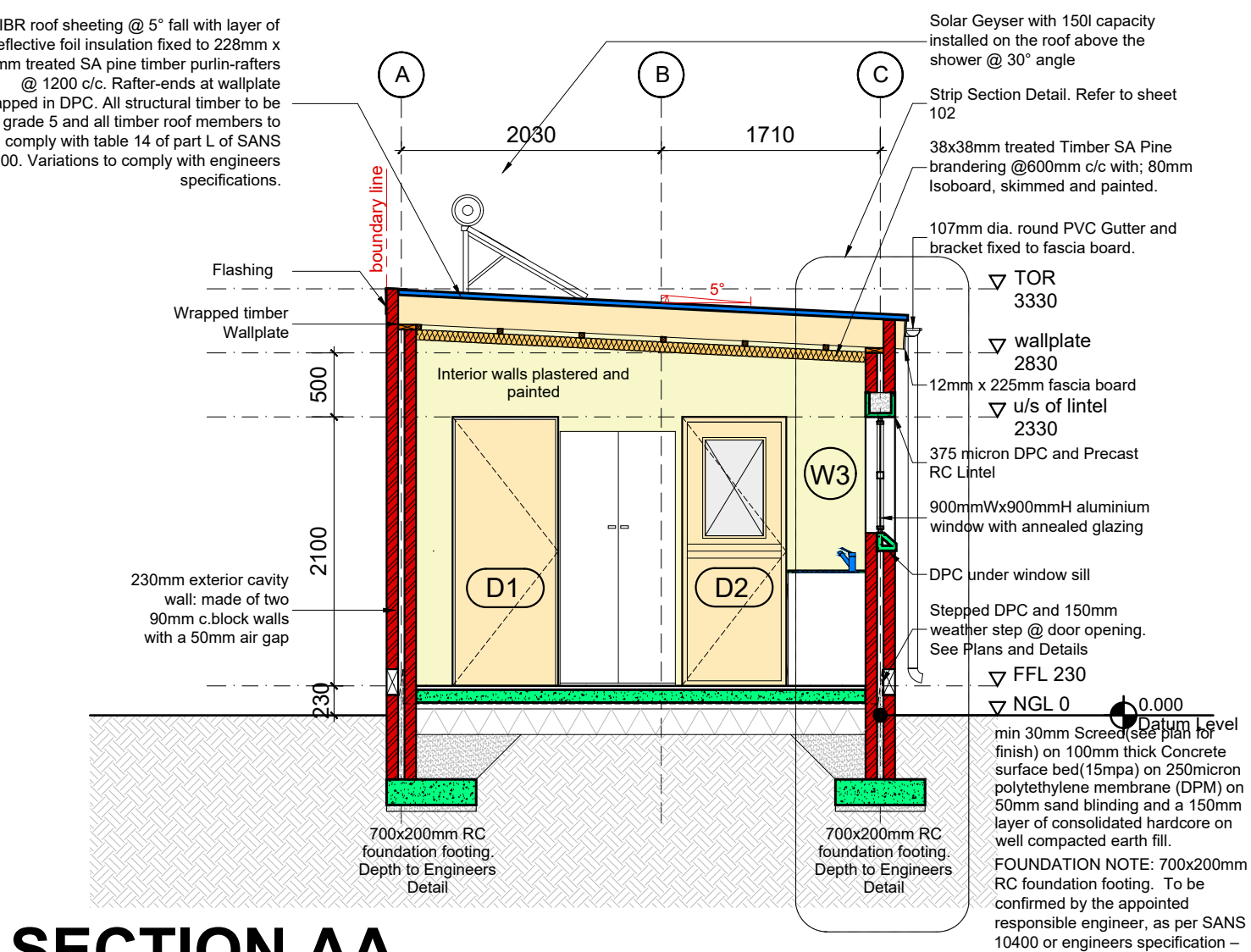
SECTION BB

SCALE 1 : 50



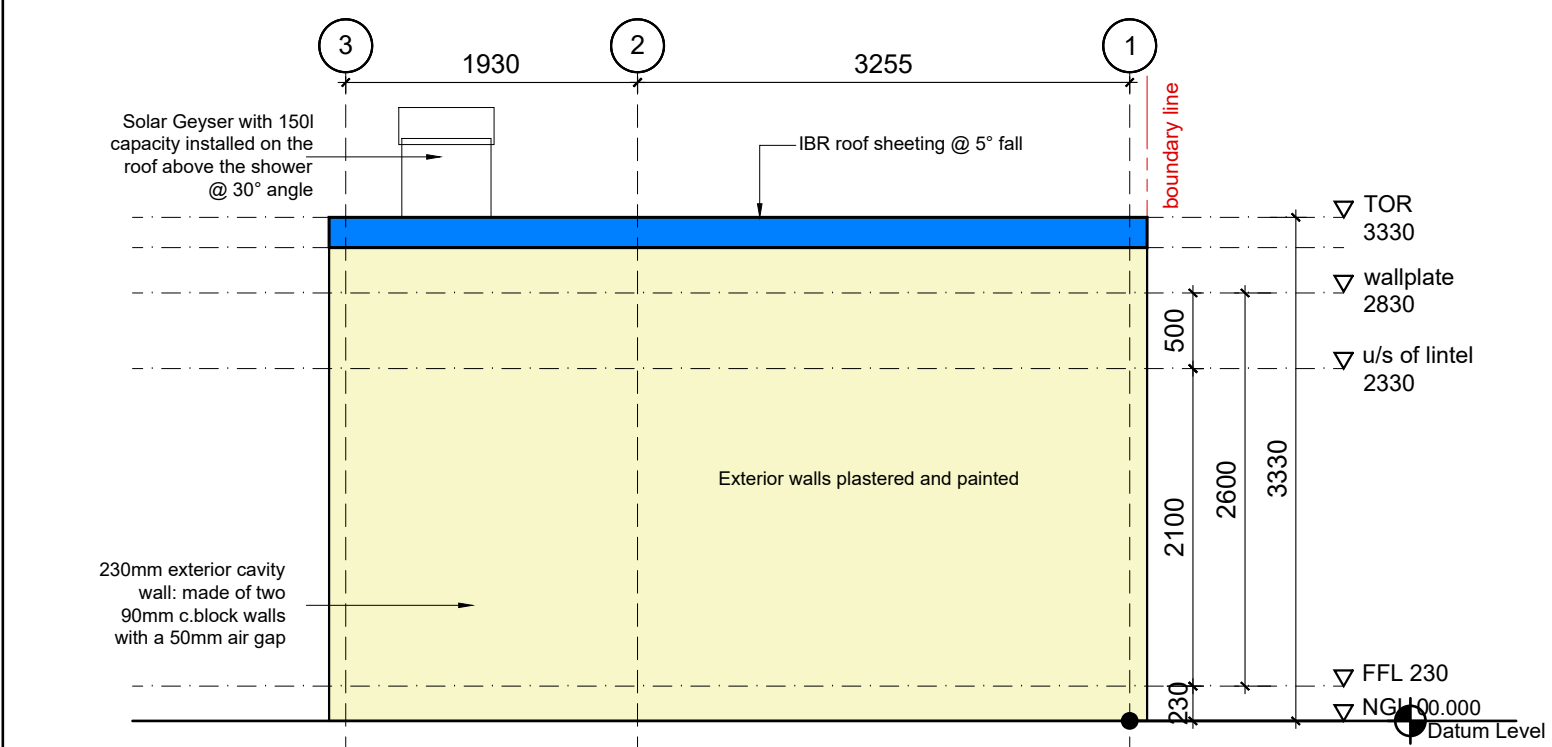
FRONT ELEVATION

SCALE 1 : 50



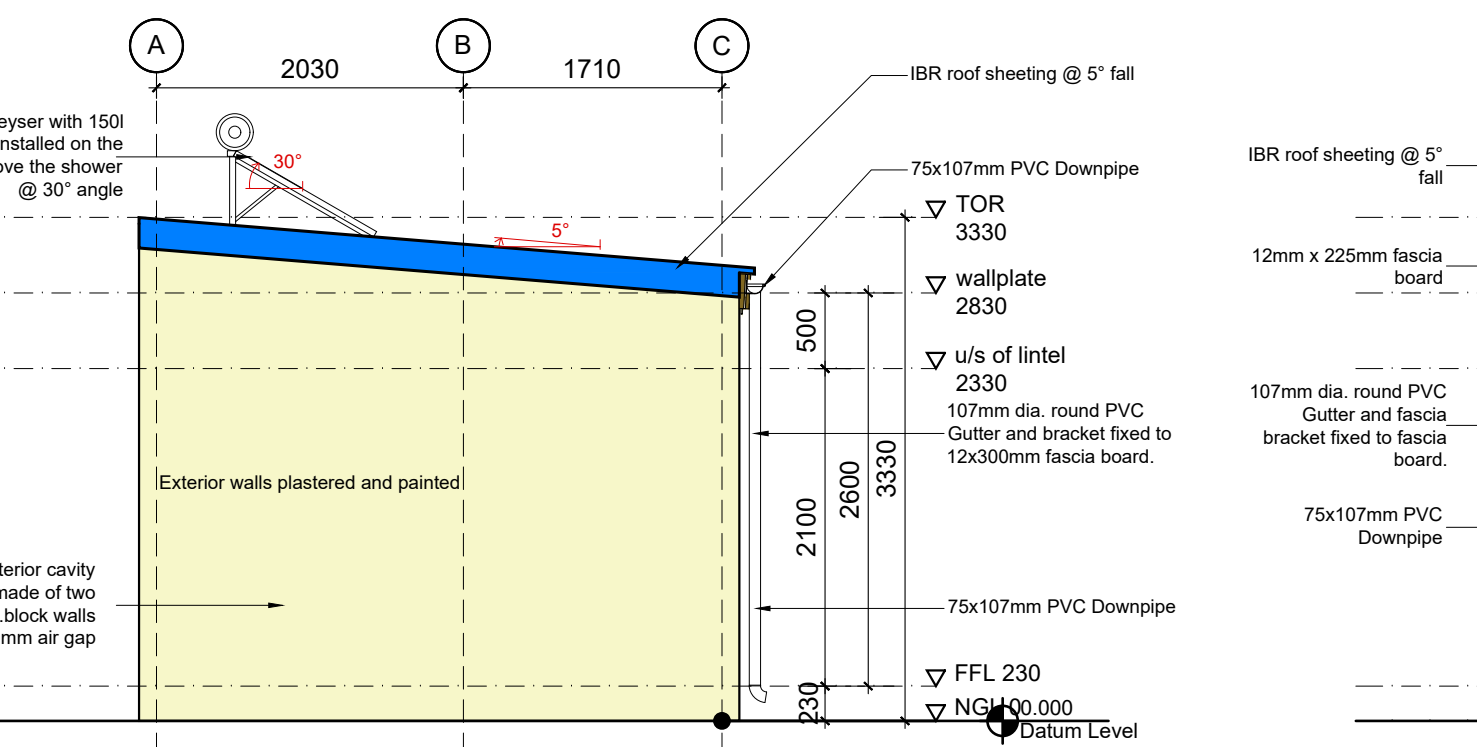
SECTION AA

SCALE 1 : 50



BACK ELEVATION

SCALE 1 : 50



SIDE ELEVATION 01

SCALE 1 : 50

WALLS
5.1 Blending of reinforcement shall be in accordance with the current edition of SANS 282.
5.2 Reinforcement shall be fixed to comply with the tolerances specified in the current edition of SANS 920.
5.3 No heat treatment (including but not limited to welding) or cutting of steel is allowed without the written approval of the Engineer. Any site bending of steel reinforcement shall be done using a proper bar re-bending tool, and bars should only be re-bent once.
5.4 The Contractor shall exercise care that no damage to waterproofing materials underneath surface beds is caused during fixing of steel or other operations. The cost to repair or replace waterproofing materials shall be at the Contractor's expense.
5.5 Vertical element (columns and walls) reinforcement to be adjusted and approved in writing by the Engineer after levels to foundations have been confirmed on site.
5.6 All re-entrant corners of openings in slabs and walls shall have two (2) Y12 corner bars of length 1200 mm on both sides of the concrete element, unless specified otherwise on the relevant bending schedule.
5.7 All reinforcement must be inspected and approved by the Engineer in writing before concreting. The Engineer shall be given at least 24 hours advance notification of an inspection. Inspection will only be done if all steel is properly fixed, spacer blocks positioned, shuttering cleaned out and reinforcement checked by the Contractor prior to the Engineer arriving for inspection.
5.8 It is the Contractor's responsibility to maintain reinforcement (including mesh) in the correct position with approved spacers and/or stools during concreting.

RAINFALL DISPOSAL
10.1 Stoop area has a 50mm screed laid to fall 1:70 to patent stormwater outlet.
10.2 Roof slope of 5 degrees to direct water toward front of dwelling with 1200mm roof overhang to allow water discharge away from structure and foundations.
10.3 Excess discharge to be directed into masonry catchpits with covers to 100mm diam. Stormwater pipes running below ground to municipal stormwater system.

ROOF CONSTRUCTION
11.1 Specifics of roof structure to comply with SANS 10400 or to structural engineer's detail.
11.2 Roof construction for Typology A is as follows:
11.2.1 IBR roof sheeting @ 5° fall with layer of reflective foil insulation fixed to 228mm x 50mm treated SA pine timber purlin-rifters @ 1200 c/c. Rafter-ends at wallplate wrapped in DPC. All structural timber to be grade 5 and all timber roof members to comply with table 14 of part L of SANS 10400.
11.2.2 38x38mm treated Timber SA Pine battens @600mm c/c with 130mm mineral wool insulation on 6.4mm Gypsum ceiling board, skimmed and painted.
11.2.3 6.4mm gypsum ceiling board fixed to 38mmx38mm timber battens
11.2.4 All timber roof members to comply with table 13 of part L of SANS 10400.
11.3 Roof construction for Typology B is as follows:
11.3.1 IBR roof sheeting @ 5° fall fixed to 228mm x 50mm treated Timber SA Pine purlin-rifters @ 1200 c/c with layer of reflective foil insulation. Purlin-rifters tied down with 30mm x 1.6mm galvanized steel straps every 1200mm c/c and embedded 600mm deep into brickwork.
11.3.2 38x38mm treated Timber SA Pine battens @600mm c/c with 130mm mineral wool insulation on 6.4mm Gypsum ceiling board, skimmed and painted.
11.3.3 All timber roof members to comply with table 14 of part L of SANS 10400.
11.4 Dimension limits are reference in SANS 10400, changes will require approval by responsible engineer.
11.5 All structural timber to be grade 5, timber roof members to comply with table 13,14 or 15 of part L of SANS 10400. Roof to comply as per engineers detail.

WINDOWS AND DOORS
12.1 All glazing to comply with requirements of SANS 10137 & SANS 10400 Part N
12.2 Bars to be fitted to opening section of windows to manufacturers spec.
12.3 Precast concrete lintels + 4 courses brickwork with brickwork every course over all openings not exceeding 3m
12.4 Windows minimum 10% of floor area for natural light (artificial light should be a min. lux levels as per the SANS codes)
12.5 Natural ventilated spaces – openings to be a min. of 5% of the floor area. (Check SANS codes)
12.6 Smoke ventilations – openings should be a min. of 3% of the floor area. (Check SANS codes)
12.7 Staircase width and landings to comply.

STAIRCASE
7.1 All concrete work is to be done in accordance with the current edition of SANS 2001-CC1
7.2 All concrete slabs on drawings are without finishes unless indicated otherwise
7.3 Unless otherwise specified by a Specialist Consultant or Specialist Contractor and approved by the Engineer in writing:
i. Ribs to bear a minimum of 90mm onto the supporting structure.
ii. Ribs to be propped at a maximum of 1500mm c/c
iii. Props are to remain in place for at least ten (10) days after casting.
iv. No blocks may be taken more than 20mm onto supporting walls.
v. Rib soffits to be cambered at a rate of 6mm per 3m span.
7.4 The Engineer shall be given at least 48 hours advance notice when inspections are due.
7.5 Ribs and topping to be cast simultaneously unless otherwise specified in writing by the Engineer.
7.6 All concrete is to be mechanically vibrated during casting.
7.7 Position of any walls on top of the slab may not be altered without Engineer's written approval.
7.8 Prestressed lintels and minimum four courses of brickwork with brickwork every layer to be placed over openings where reinforced concrete beams have not been specified.
7.9 No in-situ concrete may be poured onto the slab before the layout of the pre-cast units and the reinforcing steel has been inspected and approved in writing by the Engineer.

SUSPENDED FLOOR SLAB - RIB AND BLOCK
7.1 All concrete work is to be done in accordance with the current edition of SANS 2001-CC1
7.2 All concrete slabs on drawings are without finishes unless indicated otherwise
7.3 Unless otherwise specified by a Specialist Consultant or Specialist Contractor and approved by the Engineer in writing:
i. Ribs to bear a minimum of 90mm onto the supporting structure.
ii. Ribs to be propped at a maximum of 1500mm c/c
iii. Props are to remain in place for at least ten (10) days after casting.
iv. No blocks may be taken more than 20mm onto supporting walls.
v. Rib soffits to be cambered at a rate of 6mm per 3m span.
7.4 The Engineer shall be given at least 48 hours advance notice when inspections are due.
7.5 Ribs and topping to be cast simultaneously unless otherwise specified in writing by the Engineer.
7.6 All concrete is to be mechanically vibrated during casting.
7.7 Position of any walls on top of the slab may not be altered without Engineer's written approval.
7.8 Prestressed lintels and minimum four courses of brickwork with brickwork every layer to be placed over openings where reinforced concrete beams have not been specified.
7.9 No in-situ concrete may be poured onto the slab before the layout of the pre-cast units and the reinforcing steel has been inspected and approved in writing by the Engineer.

LIGHTS
14.1 All external light fittings to be waterproofed
WATER BYLAW
15.1 All work to comply with the water bylaw.
15.1.1 Section 51 - Material, installation and maintenance of pipes used to convey water must comply.
15.1.2 Section 52 (d) the storage of a minimum quantity of water, to be used for purposes other than fire-fighting or air-conditioning, is provided in accordance with Table 1 of Schedule 3
15.1.3 Section 55 - The responsibility of the owner to supply and support fire installations and connection to mains.

NAME	W1	W2	NAME	W3
ROOM	BATHROOM	KITCHEN	ROOM	KITCHEN
QUANTITY	1	1	QUANTITY	1
GLAZING	Frosted annealed glazing.	Single clear annealed glazing.	GLAZING	Single clear annealed glazing.
FRAME	600mm Wide x 900mm High Aluminium Window Frame		FRAME	900mm Wide x 900mm High Aluminium Window Frame
U-VALUE	U-value of 5.9		U-VALUE	U-value of 5.9
HARDWARE	To manufacturer's specification.		HARDWARE	To manufacturer's specification.

Window Schedule

SCALE 1 : 50

REINFORCEMENT
5.1 Blending of reinforcement shall be in accordance with the current edition of SANS 282.
5.2 Reinforcement shall be fixed to comply with the tolerances specified in the current edition of SANS 920.
5.3 No heat treatment (including but not limited to welding) or cutting of steel is allowed without the written approval of the Engineer. Any site bending of steel reinforcement shall be done using a proper bar re-bending tool, and bars should only be re-bent once.
5.4 The Contractor shall exercise care that no damage to waterproofing materials underneath surface beds is caused during fixing of steel or other operations. The cost to repair or replace waterproofing materials shall be at the Contractor's expense.
5.5 Vertical element (columns and walls) reinforcement to be adjusted and approved in writing by the Engineer after levels to foundations have been confirmed on site.
5.6 All re-entrant corners of openings in slabs and walls shall have two (2) Y12 corner bars of length 1200 mm on both sides of the concrete element, unless specified otherwise on the relevant bending schedule.
5.7 All reinforcement must be inspected and approved by the Engineer in writing before concreting. The Engineer shall be given at least 24 hours advance notification of an inspection. Inspection will only be done if all steel is properly fixed, spacer blocks positioned, shuttering cleaned out and reinforcement checked by the Contractor prior to the Engineer arriving for inspection.
5.8 It is the Contractor's responsibility to maintain reinforcement (including mesh) in the correct position with approved spacers and/or stools during concreting.

MASONRY
6.1 Masonry units shall comply with the current editions of relevant specifications, including but not limited to:
i. SANS 227, ii. SANS 285, iii. SANS 1215
6.2 Brickwork to be built according to the current edition of SANS 10164.
6.3 Minimum brickwork strengths:
i. Load-bearing bricks: 14 MPa; ii. Non load-bearing bricks: 7 MPa.
6.4 Mortar for brickwork shall be prepared by specialist to Architect's approval.
6.5 Buttery wall ties shall be built in cavity walls at three per square meter (3/m²) (staggered) or similar approved spacing.
6.6 Hoop iron straps shall be built in a minimum of every fourth course (i.e. minimum every 340mm) for a minimum of 700mm, and shot-fixed to steel/RC vertical elements.
6.7 Concrete lintels to be supplied and installed above all openings in brickwork in accordance with supplier's specification.
6.8 Brickwork:
i. Brickwork shall be reinforced with an approved brickwork every fourth course (i.e. minimum every 340mm).
ii. First two brickwork courses above window and door openings, and below window openings to contain brickwork extending 600mm past these openings.
iii. In filled cavity retaining walls, brickwork should be placed every second course.
iv. All mortar for brickwork shall be prepared by specialist to Architect's approval.
6.10 Refer Architect's drawings for details of reinforced brick lintels.
6.11 WSCE drawings indicate load-bearing brickwork. Refer Architect's drawings for the full extent of all brickwork.
6.12 Where filled cavities are indicated, any reinforcing steel shall be properly secured.
6.13 All non-load bearing walls and partitions shall be kept 20mm clear of the underside of beams and slabs, unless otherwise specified.

SUSPENDED FLOOR SLAB - RIB AND BLOCK
7.1 All concrete work is to be done in accordance with the current edition of SANS 2001-CC1
7.2 All concrete slabs on drawings are without finishes unless indicated otherwise
7.3 Unless otherwise specified by a Specialist Consultant or Specialist Contractor and approved by the Engineer in writing:
i. Ribs to bear a minimum of 90mm onto the supporting structure.
ii. Ribs to be propped at a maximum of 1500mm c/c
iii. Props are to remain in place for at least ten (10) days after casting.
iv. No blocks may be taken more than 20mm onto supporting walls.
v. Rib soffits to be cambered at a rate of 6mm per 3m span.
7.4 The Engineer shall be given at least 48 hours advance notice when inspections are due.
7.5 Ribs and topping to be cast simultaneously unless otherwise specified in writing by the Engineer.
7.6 All concrete is to be mechanically vibrated during casting.
7.7 Position of any walls on top of the slab may not be altered without Engineer's written approval.
7.8 Prestressed lintels and minimum four courses of brickwork with brickwork every layer to be placed over openings where reinforced concrete beams have not been specified.
7.9 No in-situ concrete may be poured onto the slab before the layout of the pre-cast units and the reinforcing steel has been inspected and approved in writing by the Engineer.

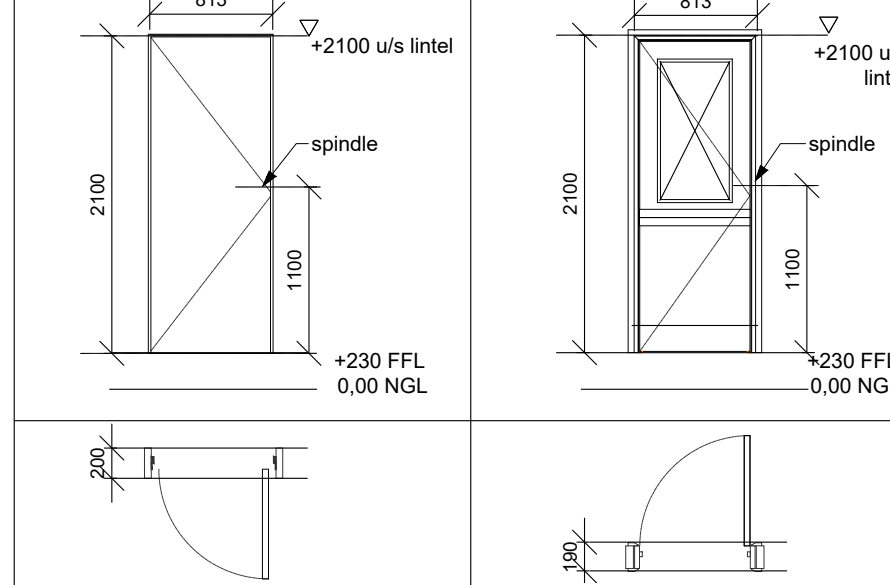
SURFACE BED
8.1 Minimum 30mm Screed (see plan for finish) on 100mm thick Concrete surface bed (15mpa).
8.2 250micron polyethylene membrane (PEM) on 50mm sand blinding and a 200mm layer of consolidated hardcore on well compacted earth fill.
8.3 Internal tiled floor finish to arch's specification on 50mm screed on reinforced concrete slab to structural engineer's detail.

FOUNDATION
3.1 Footing levels shown on the drawings are preliminary and shall be confirmed by the Engineer in order to obtain the specified allowable soil bearing pressure.
3.2 No foundations are to be cast on fill. Over-excavations to be filled with mass concrete (15 MPa/19 mm) at the Contractor's expense.
3.3 A 50mm thick blinding layer (15 MPa/19 mm) shall be cast under all foundations of the concrete structure.
3.4 All footings shall be placed concentrically below columns and symmetrically below brickwork unless otherwise indicated.
3.4.1 Footings located along property boundaries to be eccentrically loaded where indicated.
3.5 Final foundation levels shall be confirmed on site and submitted by the Contractor for approval by the Engineer before further work is conducted.
3.6 All strip footings for load bearing walls shall be 200 deep x 700mm wide (excluding 50mm sand blinding) unless otherwise specified.
3.7 Waterproofing (by Specialist Contractor) for retaining walls to be inspected and approved by relevant Consultant and/or Architect before being covered.

TYPE	NO.	COMMENTS	KEY
Prepaid water meter and DB	1	1600mm above FFL	
Wall outlet	5	300mm above FFL	
Double lever light switch	2	1100mm above FFL	
Single lever light switch	0	1100mm above FFL	
LED light fixture	3	ceiling mounted	
Isolator Outlet for Oven/Stove	1	1100mm above FFL	
Wifi Router Connection	1	300mm above FFL	
Wall mounted outdoor light	1	2150mm above FFL	

TYPE	KEY
Electrical wiring to conduit	
Electrical wiring to light fixture	
Electrical wiring under screed	
110mm Drain and Soil Pipe	
50mm Waste Pipe	
Soil and combined Vents	
Existing Drains and Stormwater	
Fire escape route and direction	

SERVICES LEGEND
4.1 1 x 4.5kg DCP extinguisher per 200 square meter
4.2 Unit separation walls to extend under the roof covering (no combustibles to pass through or over the unit separation walls which is to be min 60mm fire rated)
4.3 Any openings for ventilation purposes in fire walls (boundary or separation) are to be provided with a fire damper.
4.4 1m Flame path travel to be provided
4.5 Safety distances between existing house and new modular units must be provided (depends on size of unprotected openings of the 2 buildings facing each other and may not be applicable)
4.6 Where 2 or more units are serviced by a single stair:
4.6.1 Fire hose reel installation is to be provided
4.6.2 No unprotected (windows/doors) openings permitted within 3m of the external escape stair and/or passage (window not exceeding 0.3 square meters serving a bathroom or toilet need not be protected)



NAME	D1 - Internal door	NAME	D2 - external door
QUANTITY	1	QUANTITY	1
CONSTRUCTION	2032mm x 813mm leaf, 40mm thick Masonite faced hollow core door	CONSTRUCTION	2032mm x 813mm leaf, 40mm thick timber solid rebate stable door with fixed glazed panel
HARDWARE	Std. door spindle & 2-lever-lock and 1 pair std. butt hinges	HARDWARE	Door spindle, 3-lever-lock, self-closing mech. a pair of butt hinges, weather seal & Kickplate

Door Schedule

SCALE 1 : 50

The drawings are copyright and remain the property of the City of Cape Town. Copyright is reserved by them and the drawing is issued on the condition that it is not copied, reproduced, related or disclosed to any unauthorized person, either wholly or in part without the written consent from Jakes.

All dimensions to be checked on site and on drawings. Any discrepancies to be reported to the architect before work is put to hand. Only figures dimensions are to be taken. All levels to be checked on site and on drawings and any discrepancies must be reported to the architect before any work is put to hand. All levels shown are finished floor levels. Soil and footing conditions must be checked and verified by a geotechnical engineer. All work must be completed in accordance with SANS 10400 and the current National Building Regulations. All structural work must be checked by a structural engineer and must be read in conjunction with their drawings.

GENERAL NOTES
1.1 These notes are to be read in conjunction with all related engineering drawings and project specifications. Notes on drawings take preference over General Notes.
1.2 Structural drawings must be read in conjunction with the relevant drawings and documentation from other Consultants and Specialists, including but not limited to architectural, drainage, mechanical, electrical and plumbing drawing. Any discrepancies (including dimensions and levels) shall be brought to the attention of the Engineer immediately prior to casting of concrete.
1.3 All Engineers' and/or Consultants' instructions must be recorded in the site instruction (SI) book or confirmed via email.
1.4 The current edition of all relevant SANS specifications for the project, including but not limited to those mentioned in the notes, on the drawings and in the project specifications must be available at all times on site. Any reference to a SANS or other specification is a reference to the latest published edition of that specification.
1.5 The Contractor shall confirm all levels and dimensions on site before erecting formwork and casting concrete. Any discrepancies shall be reported to the Engineer immediately.
1.6 The Contractor may not use alternative products or designs other than those prescribed, unless equivalent and written approval from the Engineer is obtained. Alternative design/drawings are then be submitted at no extra cost to the Client unless otherwise agreed.
1.7 Care must be exercised to ensure that waterproofing membranes and filters are not damaged during construction. Water proofing by specialist to Architect's approval.
1.8 DO NOT SCALE OFF DRAWINGS. Request required dimensions.
1.9 The works will be inspected from time to time by the Engineer (and other Consultants and Specialists where relevant) to ascertain that the Contractor is carrying out the works in accordance with the construction documentation. It remains the Contractor's responsibility to ensure that the works are carried out in accordance with the latest relevant construction documentation and good building practices.
1.10 No works to encroach the erf boundary.
1.11 No dispersed water to be a nuisance to neighboring properties

EARTHWORKS
2.1 All earthworks shall be in accordance with SANS 1200D and relevant drawings.
2.2 The Contractor shall confirm the nature and location of all existing services which may be affected by construction works.
2.3 The Contractor shall ensure proper damage protection of these services during construction works.
2.4 The Contractor shall notify and/or arrange with the relevant authorities of any service/supply discontinuance, and undertake all relevant cutting, disconnecting and/or sealing of services and drains as required.
2.5 All dimensions and levels are to be confirmed by the Contractor with Architect's and other relevant drawings prior to any excavations commencing. Any discrepancies shall be brought to the Engineer's attention and resolved prior to excavations commencing.
2.6 The Contractor is responsible for implementing and maintaining a temporary site drainage system to channel water away from the works to ensure the local protection of the structure and surface beds against damage caused by water (including but not limited to Stormwater, and water from neighbouring systems) and transportable solids during construction.
2.7 The Contractor's temporary drainage system shall provide the necessary pumps, temporary sumps and drains to ensure that excavations remain free of water at all times.
2.8 The Contractor is responsible for ensuring that the site work is maintained in a safe and stable condition.
2.9 Bulk excavation batters are to be provided around the perimeter of the site at one (1) meter from the site boundary and at 1V/2H, unless otherwise indicated on drawings or agreed upon in writing by the Engineer.
2.10 The Contractor shall engage with the responsible Engineer for approval on steep slopes.
2.11 Slope stabilisation and erosion protection shall be provided at the Contractor's expense.
2.12 The Contractor shall design and install all bracing and/or shoring necessary to retain earth banks, roads, pavements, walls, and footings of adjacent properties and structures, as well as to prevent caving and displacement of adjacent soil and structures.
2.13 All excavations to be inspected and approved in writing by the Engineer.
2.14 Footing levels shown on the drawings are preliminary and based on the geotechnical report. Excavations shall continue until the required soil bearing capacity as per the geotechnical report is found, and shall be confirmed by the Geotechnical Engineer. Any deviation from the footing founding level to be noted on the drawings to be discussed between the Contractor and the Engineer to determine whether the over-excavations are to be filled with mass concrete (15 MPa/19 mm) or whether the reinforcing steel is to be appropriately adjusted.
2.15 Over-excavations are to be filled with mass concrete (15 MPa/19 mm) at the Contractor's expense.
2.16 Over-excavated materials shall not be used for backfill, leveling of uneven areas or filling in of over-excavations and shall be removed from site to a place of legal disposal, unless written approval is obtained from the Engineer.
2.17 Backfill material to be compacted in layers not exceeding 150mm to 98% MOD AASHTO, and approved by Geotechnical Engineer.
2.18 Column bases shall be backfilled with approved material in accordance with the project specification.
2.19 Sub-soil drains shall be inspected and approved by Engineer/relevant Consultant before being covered with backfill.
2.20 Waterproofing (by Specialist Contractor) for retaining walls to be inspected and approved by Engineer/relevant Consultant and/or Architect before being covered over with backfill.

FOUNDATIONS
3.1 Footing levels shown on the drawings are preliminary and shall be confirmed by the Engineer in order to obtain the specified allowable soil bearing pressure.
3.2 No foundations are to be cast on fill. Over-excavations to be filled with mass concrete (15 MPa/19 mm) at the Contractor's expense.
3.3 A 50mm thick blinding layer (15 MPa/19 mm) shall be cast under all foundations of the concrete structure.
3.4 All footings shall be placed concentrically below columns and symmetrically below brickwork unless otherwise indicated.
3.4.1 Footings located along property boundaries to be eccentrically loaded where indicated.
3.5 Final foundation levels shall be confirmed on site and submitted by the Contractor for approval by the Engineer before further work is conducted.
3.6 All strip footings for load bearing walls shall be 200 deep x 700mm wide (excluding 50mm sand blinding) unless otherwise specified.
3.7 Waterproofing (by Specialist Contractor) for retaining walls to be inspected and approved by relevant Consultant and/or Architect before being covered.

FIRE
4.1 1 x 4.5kg DCP extinguisher per 200 square meter
4.2 Unit separation walls to extend under the roof covering (no combustibles to pass through or over the unit separation walls which is to be min 60mm fire rated)
4.3 Any openings for ventilation purposes in fire walls (boundary or separation) are to be provided with a fire damper.
4.4 1m Flame path travel to be provided
4.5 Safety distances between existing house and new modular units must be provided (depends on size of unprotected openings of the 2 buildings facing each other and may not be applicable)
4.6 Where 2 or more units are serviced by a single stair:
4.6.1 Fire hose reel installation is to be provided
4.6.2 No unprotected (windows/doors) openings permitted within 3m of the external escape stair and/or passage (window not exceeding 0.3 square meters serving a bathroom or toilet need not be protected)

TIMBER
5.1 All timber to comply with SANS 10082

CONCRETE
6.1 All Pc lintels to have min. 4 courses of brickwork with brick force in every course over all openings not more 3.0m. All opening wider than 3m to engineer's specification.

CLIENT
Add client info here

SIGNATURE:
Add property info here

PROJECT NAME
Prototypical Modular Micro Units

DRAWING NAME
Type 1B - Single Unit

DRAWING STATUS
Council Submission
ARCHITECT, REG. NO. & SIGNATURE

LOCATION
ENGINEER, REG. NO. & SIGNATURE

DATE	STAGE
26/06/24	4.1
SCALE	DRAWN BY
1 : 50	@ A1 LW
PROJECT NO.	DRAWING NO.
2310	101
DATE	CHECKED BY
26/06/24	KJ
PROJECT NO.	REV. NO.
2310	06

Hot water consumption calculations	
H3	2
Number of occupants:	2-3
Hot water cylinder:	150 l

Hot water cylinder with a storage capacity of 150 litres is sufficient for a 3 person household.

Internal Finishing Schedule *adapt to client spec					
FLOOR	SKIRTING	WALL	SILL	CORNICE	CEILING
Polished Screed at a thickness of 40mm	N/A	1 x coat wood float plaster 2 x coat filler coat 2 x coats internal PVA as per specification OR/W Wet or Dry Bagging and painted with acrylic low gloss/semi Tiled splash back to WHB height and full shower walls	Plastered sill to detail. Same finish as internal wall.	75mm coved cornice for paint finish OR Shadow- line trim	80mm isoboard ceiling fixed to 38mmx38mm timber bracing @ 600mm c/c

IFR roof sheeting @ 5° fall with layer of reflective foil insulation fixed to 228mm x 50mm treated SA pine timber purlin-rafters @ 1200 c/c. Rafter-ends at wallplate wrapped in DPC. All structural timber to be grade 5 and all timber roof members to comply with table 14 of part 1 of SANS 10400. Variations to comply with engineers specifications.

5 degree Fall

38x38mm timber batten @ 600mm c/c with 38mm Isoboard, skinned and painted.

Optional 75mm coved cornice

38 x35 x 3.8mm angled angle fixed with stainless steel screws.

Silicone seal - to match window frame colour.

Plastered & painted window reveal.

228mm x 50mm treated SA pine timber purlin-rafters @ 1200 c/c. Purlin-rafters ends to be profiled to accommodate barge board & soffit, as shown.

Purlin-rafters laid down with 30mm x 1.8mm galvanized steel straps every 1200mm c/c and embedded 600mm deep into blockwork.

114mm x 38mm treated SA Pine Timber Wallplate.

Poly-closer

107mm dia. round PVC Gutter and fascia bracket fixed to fascia board.

12mm x 225mm fascia board

Wall ties every course above lintel, 4m2

Wesphote every 4m2 perp with DPC

375 micron DPC above lintel & taken up cavity and dressed to blockwork.

Cavity closer

Brick-force every course above lintel

215mm x 195mm x 395mm, Precast hollow concrete Lintel (U) blocks, with 3x5.8mm rods cast inside with wall mortar or gr 10 concrete. As per SANS 10400 Part K.

Silicone seal

Plaster & paint Finish

IFR roof sheeting with 38mm Isoboard insulation

228mm x 50mm SA pine purlin 1200 c/c

38x38mm timber batten

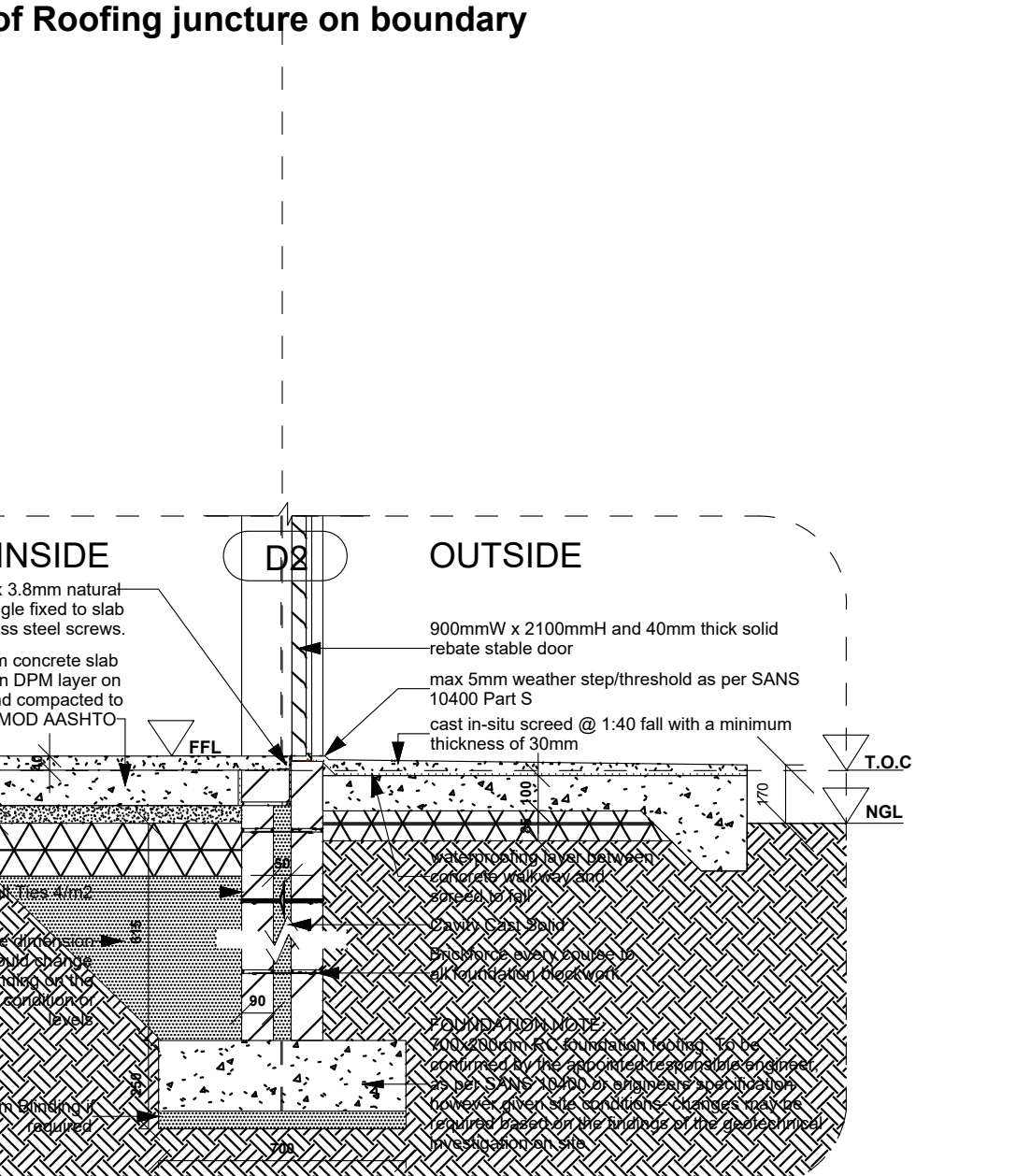
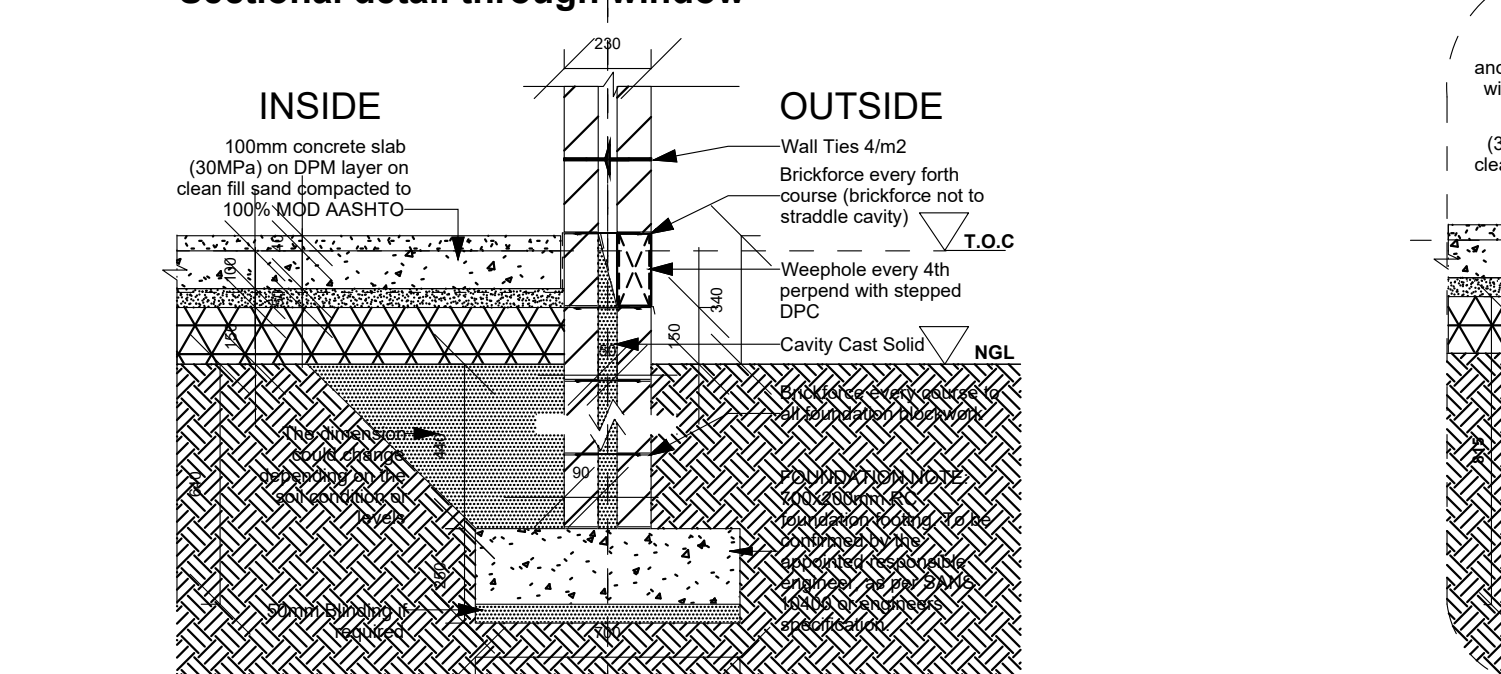
38x35 x 3.8mm stainless steel angle

80mm silicone paint

wallplate

u/s lintel

W1



GENERAL NOTES

- 1.1 These Notes are to be read in conjunction with all related engineering drawings and project specifications. Notes on drawings take preference over General Notes.
- 1.2 Structural drawings must be read in conjunction with the relevant drawings and documentation from other Consultants and Specialists, including but not limited to architectural, drainage, mechanical, electrical, civil, and other relevant disciplines. All drawings and levels shall be subject to the attention of the Engineer immediately prior to casting of concrete.
- 1.3 All Engineers' and other Consultants' instructions must be recorded in the site instruction (SI) book or on a separate email.
- 1.4 The content of all of relevant SANS specifications for the project, including but not limited to those mentioned in the notes, on the drawings and in the project specifications must be available at all times on site. Any reference to a SANS or other specification is a reference to the latest published version of that specification.
- 1.5 The Contractor shall confirm all levels and dimensions on site before erecting formwork and casting concrete. Any discrepancies shall be reported to the Engineer immediately.
- 1.6 The Contractor shall ensure that all materials, products or other items as those prescribed, unless equivalent and written approval from the Engineer is obtained. Alternative design/drawings are to then be submitted at no extra cost to the Client unless otherwise agreed.
- 1.7 Care must be exercised to ensure that waterproofing membranes and filters are not damaged during construction. Water proofing must be done in accordance with the project specifications.
- 1.8 DO NOT SCALE OFF DRAWINGS. Request required dimensions.
- 1.9 The works will be inspected from time to time by the Engineer (and other Consultants and Specialists) and the Contractor shall be responsible for ensuring that the works are in accordance with the construction drawings. It remains the Contractor's responsibility to ensure that the works are carried out in accordance with the latest relevant construction documentation and good practice on the project.
- 1.10 No works to encroach the erf boundary.
- 1.11 No dispersed water to be a nuisance to neighbouring properties

EARTHWORKS

2.1 The Contractor shall be in accordance with SANS 12000 and relevant drawings.

2.2 The Contractor shall confirm the nature and location of any and all existing services which may be affected by construction works.

2.2.1 The Contractor shall ensure proper damage protection of these services during construction works.

2.2.2 The Contractor shall notify and/or arrange with the relevant authorities of any services/discontinuation, and undertake all relevant cutting, disconnecting and/or sealing of services.

2.3 All dimensions and levels are to be confirmed by the Contractor with Architect's and/or relevant drawings prior to any excavations commencing. Any discrepancies shall be brought to the attention of the Engineer and/or resolved prior to excavations commencing.

2.4 The Contractor is responsible for implementing and maintaining a temporary site drainage system to channel water away from the works to ensure the local protection of the structure and surface batters against erosion and/or scouring, but not limited to Stormwater, and water from neighbouring structures) and transportable solids during construction.

2.4.1 The Contractor's temporary drainage system shall provide the necessary pumps, temporary sumps and drains to ensure that excavations remain free of water at all times.

2.4.2 The Contractor is to ensure that the drainage system is safe and stable

2.5.1 Bulk excavated batters are to be provided around the perimeter of the site at a minimum 1 meter from the site boundary and at 1V/2H, unless otherwise indicated on drawings or agreed in writing by the Engineer.

2.5.2 The Contractor shall engage with the responsible Engineer for approval on slopes or batters.

2.5.3 Slope stabilisation and erosion protection shall be provided at the Contractor's expense.

2.5.4 The Contractor shall ensure that the following are in place in accordance with the drawings, banks, roads, pavements, walls, and footings of adjacent properties and structures, as well as to prevent cracking and displacement of adjacent soil and structures.

2.6 All excavations to be indicated on drawings are preliminary and based on the geotechnical report. Excavations shall continue until the required soil bearing capacity as per the geotechnical report is found, and shall be confirmed by the Geotechnical Engineer. Any deviation from the footing drawing to be indicated on drawings is to be discussed between the Contractor and the Engineer to determine whether the over-excavations are to be filled with mass concrete (15MPa/19mm) or whether the reinforcing steel is to be appropriately adjusted.

2.6.1 Over-excavations are to be filled with mass concrete (15MPa/19mm) at the Engineer's discretion.

2.6.2 Over-excavated materials shall not be used for backfill, leveling of uneven areas or filling in of over-excavations and shall be removed from site to a place of legal disposal, unless otherwise approved in writing by the Engineer.

2.7 Backfill material to be compacted in layers not exceeding 150mm to 80% MDD AASHTO, and approved by Geotechnical Engineer.

2.7.1 All batters shall be backfilled with backfill in accordance with the drawings and the project specification.

2.7.2 Sub-soil drains shall be inspected and approved by Engineer/Relief Consultant before being covered with concrete.

2.7.3 All walling (by Specialist Contractor) for retaining walls to be inspected and approved by Engineer/Relief Consultant and/or Architect before being covered over with backfill.

FOUNDATIONS

3.1 Footing levels shown on the drawings are preliminary and shall be confirmed by the Engineer in order to obtain the specified allowable soil bearing pressure.

3.2 No foundations are to be cast on fill. Over-excavations to be filled with mass concrete (15 MPa/19 mm) at the Contractor's expense.

3.3 A 450mm thick blinding layer (15 MPa/19 mm) shall be cast under all foundations of the concrete structure.

3.4 All footings shall be placed concentrically below columns and symmetrically below brickwork unless otherwise indicated.

3.4.1 Footings located along property boundaries to be eccentrically loaded where indicated.

3.5 Final foundation levels shall be confirmed on site and submitted by the Contractor for approval by the Engineer before further work is conducted.

3.6 All strip footings for load bearing walls shall be 200 deep x 700mm wide (excluding 50mm sand blinding) unless otherwise specified.

3.7 Waterproofing by Specialist Contractor for retaining walls to be inspected and approved by relevant Consultant and/or Architect before being covered.

3.8 Footings to be confirmed by the appointed responsible engineer as per SANS 10400 or engineers specification. However given site conditions - changes may be required based on the finding of the geotechnical investigation on site.

FIRE

4.1 1 x 45kg DCP extinguisher per 200 square meter

4.2 Unit separation walls to extend to underside of the roof covering (no combustibles to pass through) or over the unit separation walls which is to be min 60min fire rated)

4.3 Any openings for ventilation purposes in fire walls (boundary or separation) are to be provided with a fire damper.

4.4 1m Flame path travel to be provided

4.5 Safety distances between existing house and new modular units must be provided (depends on size of unprotected openings of the 2 buildings facing each other and may not be applicable)

4.6 Where 2 or more units are serviced by a single stair:

4.6.1 Fire hose reel installation is to be provided

4.6.2 No unprotected (window/door) openings permitted within 3m of the external escape stair and/or passage (window not exceeding 0.93 square meters serving the external toilet need not be protected)

TIMBER

5.1 All timber to comply with SANS 10082

CONCRETE

6.1 All PC into to have min. 4 courses of brickwork with brick force in every course over all openings not more than 3.0m. All opening wider than 3m to engineer's specification.

Prototypical Modular Micro Units

LOCATION	ENGINEER, REG. NO. & SIGNATURE <i>Responsible Eng. to Sign on submission</i>
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DATE 26/06/24		STAGE 4.1
SCALE As indicated @ A1	DRAWN BY LW	CHECKED BY KJ
PROJECT NO. 2310	DRAWING NO. 102	REV NO. 06



SCALE 1 : 100

Site information * note to replace all details and values in red with those particular to the applicable site, erf and location.

LOCATION: Suburb/Town Name,
Capetown, South Africa
(The Municipal Planning By-law stipulates the below requirements and classifications in respect to the particular zoning of the erf)

OCCUPANCY/BUILDING CLASSIFICATION:
H3 - Domestic Residence
 Consisting of two or more dwelling units on a single site.
 *2 persons per bedroom.

ZONING: Single Residential 2 (SR2)

FLOOR FACTOR: 1

BUILDING LINE SETBACK:
 Setback from street boundary = 1m
 Setback along Common Boundary = 0.0 m
 measured perpendicular from street boundary for 60% of total linear distance along all common boundaries around land unit and 1 m for remainder
 Setback between structures = 2,5 m

COVERAGE CALCULATION
SITE AREA: 263.9 sqm *(input the total area of the erf)*

EXISTING COVERAGE AREA:
HOUSE: 46.7 sqm
GAR PORT: 20,2475 sqm
66.95 sqm = 25.37%
(input the area/footprint of existing dwellings and structures to calculate the percentage of covered surface area on the site)

PROPOSED COVERAGE AREA: 22.04 sqm = 8.35%
(input the area/footprint of proposed dwellings and structures to calculate the percentage of covered surface area on the site)

TOTAL ACTUAL COVERAGE AREA:
88.99 sqm = 33.7%,

Permissible Coverage = N/A

FLOOR AREA CALCULATION
(input areas of the respective spaces to determine the density)
EXISTING DWELLING FLOOR AREA: 46.7 sqm
PROPOSED G/FLOOR AREA: 14 sqm
EXTERNAL STOEP AREA: 3 sqm
PROPOSED NEW DWELLING AREA: 17 sqm
FLOOR FACTOR: Density of 35 dwelling units per hectare.

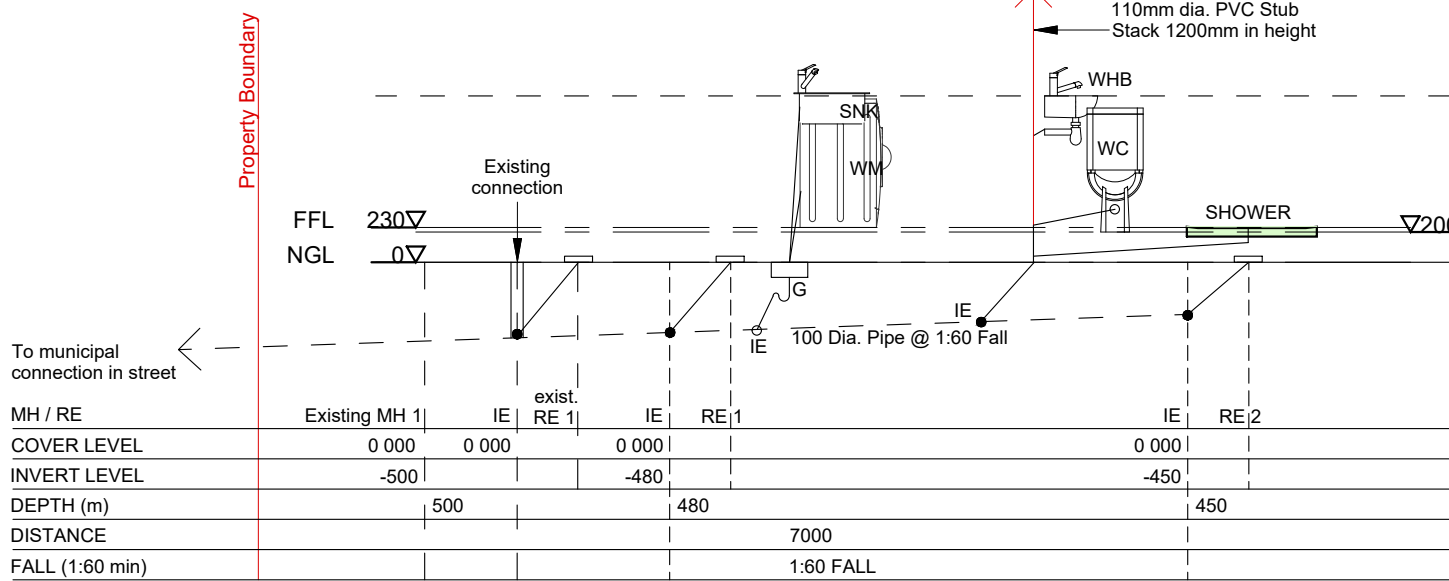
PARKING REQUIREMENTS:
(Determine the number of parking bays required by the Zoning bylaw.

1 bay per dwelling unit
EXISTING DWELLINGS: 1
PROPOSED DWELLINGS: 1

TOTAL = 2 Bays required

Drainage Notes

RE's to all changes in direction of soil pipes. It's to all bends and junctions. Reseal traps to all waste fittings. Waste pipes are to be entirely accessible along entire length and ventilated at the head of a run. Pipes below driveway to be embedded in a 100mm soil cushion below concrete bed. Bends and junctions are not to be located under the building. Soil pipes located under building to be protected from load. All work to comply with Local Authority by-laws. Service pipe 600mm min below ground and Service pipes a minimum of 500mm from drains. 100mm minimum crossing drains and a Line strainer, stopcock, non-return valve, pressure control valve and expansion relief valve to external wall.



SCALE 1 : 50

SCALE 1 : 20