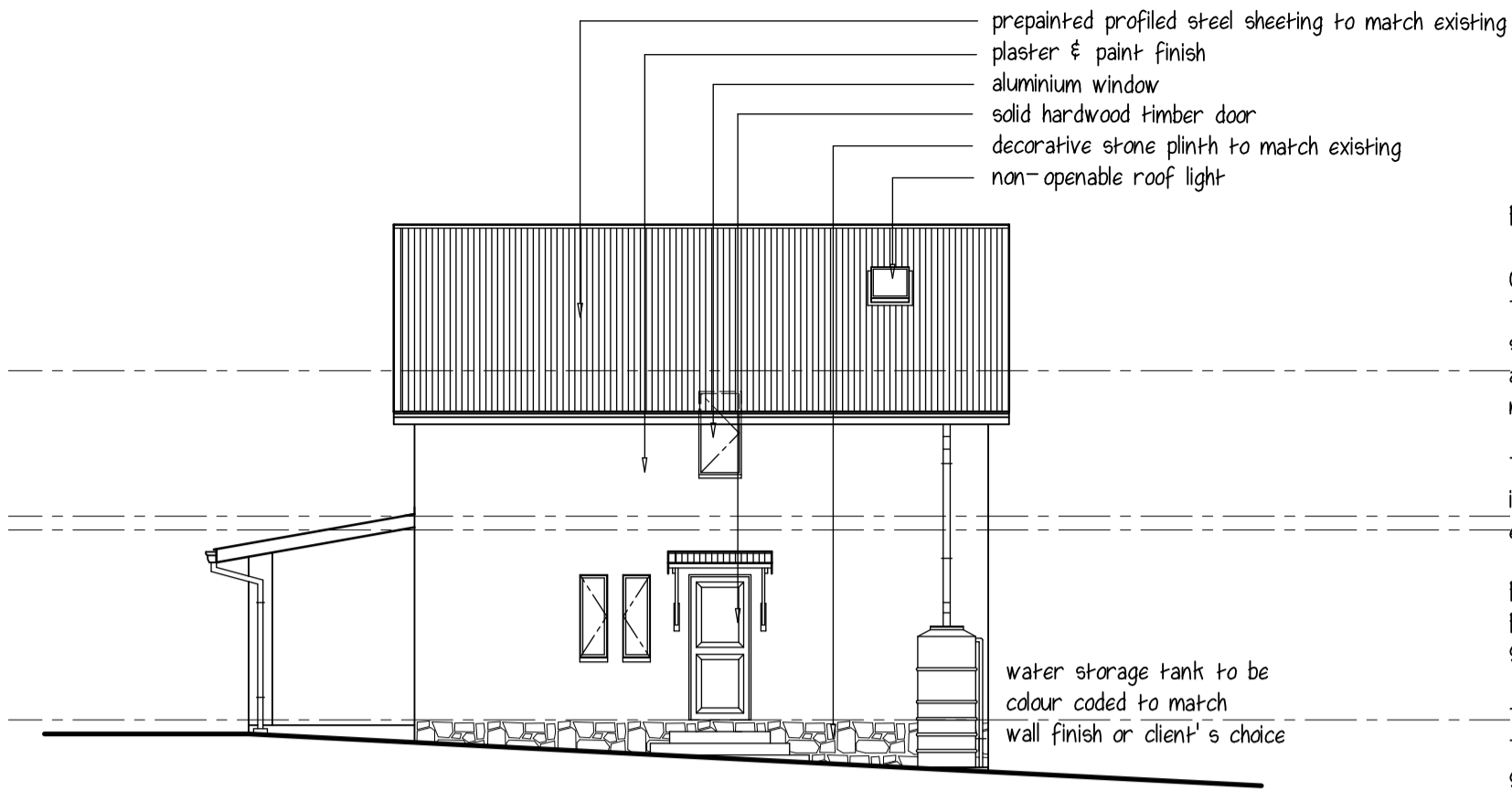


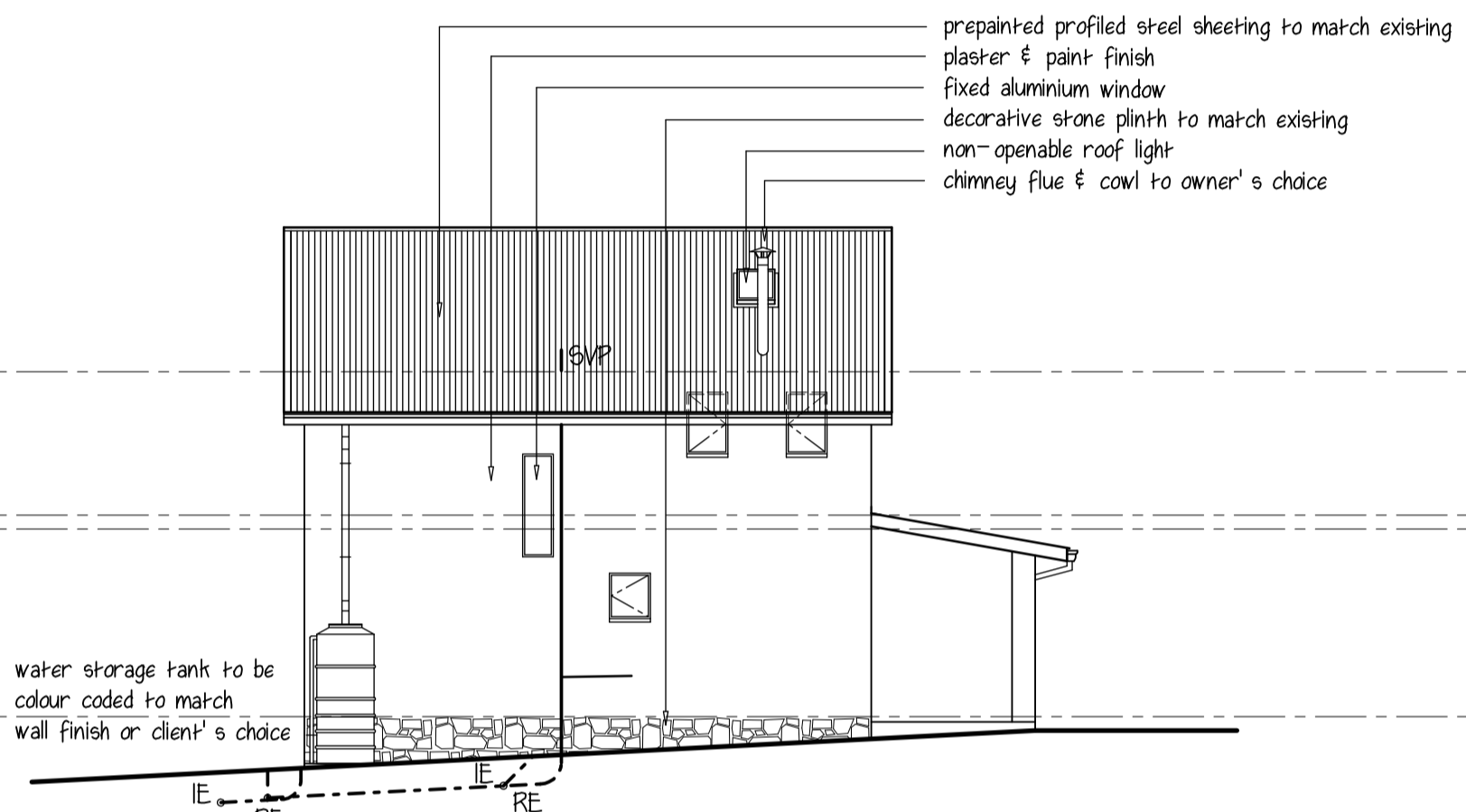
FIRST STOREY

POTABLE WATER INSTALLATION

Water installations shall be installed in accordance with the requirements of SANS 10252-1.
 Service & distribution pipes to be a minimum of Ø19ID and branch pipes Ø13ID. Above ground pipework HD copper piping and below ground HDPE.



SOUTH WEST ELEV.



NORTH EAST ELEV.

CL: 510,81m GRADE: 1: 25 CL: 511,00m
 IL: 510,40m IL: 510,60m
 D: 0,41m D: 0,40m

FIRE SAFETY
OWNER'S RESPONSIBILITY
 The owner shall ensure sufficient fire extinguishers are installed, maintained and serviced in accordance with SANS 10105 and that adequate means of access, and equipment for detecting, fighting, controlling and extinguishing a fire is maintained to fulfill the purpose it is intended for.
 The owner shall ensure that any escape route is not rendered less effective or its obstructed in any way that hinders or prevents the building occupants to escape from the building in the case of a fire or other emergency.

FIRE STABILITY
 Fire stability of structural elements or components shall be in accordance with SANS 10177-2.

TIMBER CONSTRUCTION
 The fire resistance of timber construction shall be in accordance with SANS 10082.

SPACE HEATING
 Space heating systems including a flue, flue pipe or chimney shall be designed, constructed and installed to operate safely and vent smoke or noxious gases to the atmosphere.

FLUE PIPES
 A flue pipe shall not be installed in a manner that will cause a fire hazard to adjacent materials or adversely affect any services.

CHIMNEYS
 A chimney of non-combustible material, shall not be erected in a manner that will cause a fire hazard to adjacent materials or adversely affect any services.

Non-combustible materials shall not be built within 200mm of the inside of a chimney.
 Chimney walls shall be solid masonry units of not less than 190mm.

A chimney of solid masonry units less than 190mm thick shall be provided with a flue lining made of material which will withstand any action of the fire gases, be able to resist the temperatures to which it will be subjected, and shall extend the full height of the chimney.

HEARTH'S & FIREPLACES
 Solid fuel burning fireplaces shall have a hearth of non-combustible material that shall extend not less than 500mm in front of the grate/fire basket and not less than 300mm beyond each side of such grate/fire basket.

No combustible material shall be built into a hearth.
 Solid fuel slow combustion stove & flue to be installed according to requirements of manufacturer.

OWNER RESPONSIBILITIES
APPROVED DOCUMENTATION
 A certified copy of the approved plans and associated documentation shall be retained on the site on which the building is to be erected until a Certificate of Occupancy has been issued by the local authority.

GENERAL COMPLIANCE
 The owner shall not use or allow the building to be used for a purpose other than that contained in the plans, drawings and documentation approved by the local authority.

The owner shall not deviate to any material degree from an approval granted by the local authority unless first having obtained written approval for such proposed deviation.

NOTICES
 Prior to commencing with any building or demolition work the owner shall submit a notice to the local authority stating the date on which the work shall commence. Such notice shall be given to the local authority at least four days, in the case of the erection of the building, and at least ten days in the case of demolition work, before the work commences.

Notice shall also be given to the local authority of the date, at least two working days from the date of receipt by it, on which:
 - the fire installation will be connected to any communication pipe;
 - trenches or excavations will be ready for inspection prior to the placement of concrete for any foundations;
 - the drainage installation will be ready for inspection and testing; and
 - the building will be completed.

The owner shall, at least seven days prior to the commencement of any excavation, notify the local authority in writing of the intention to excavate.

BUILDING MATERIALS
 Only materials suitable for their intended purpose shall be used in the erection of the building and such materials comply and incorporated into the building in accordance with the requirements of SANS 10400.

All timberwork used in the erection of the building shall be treated against termite and wood borer attack and fungal decay in accordance with the requirements of SANS 10005 and bear a product certification mark of a body certified by the SA National Accreditation System.

CONSTRUCTION
 Construction shall not compromise the design intent of any design solution.

Precautions shall be taken during all stages of the construction to ensure that the structural system is not damaged or distorted during the course of erection of the building.

DEMOLITION WORK
 The owner shall ensure that during the course of or after demolition of any building it is not left in a condition that is dangerous to the public or any adjoining property.

COMPLIANCE
 All work to be carried out strictly in accordance with National Building Regulations & relevant SANS standards.

No construction is to occur until plans have been approved by the local authority for any new work or deviations from that approved & contractor is to inspect official approved copies of drawings prior to any building work being commenced with.

The Owner & Contractor are to note that any changes to the plans &/or specifications after approval by the local authority WILL invalidate the approval.

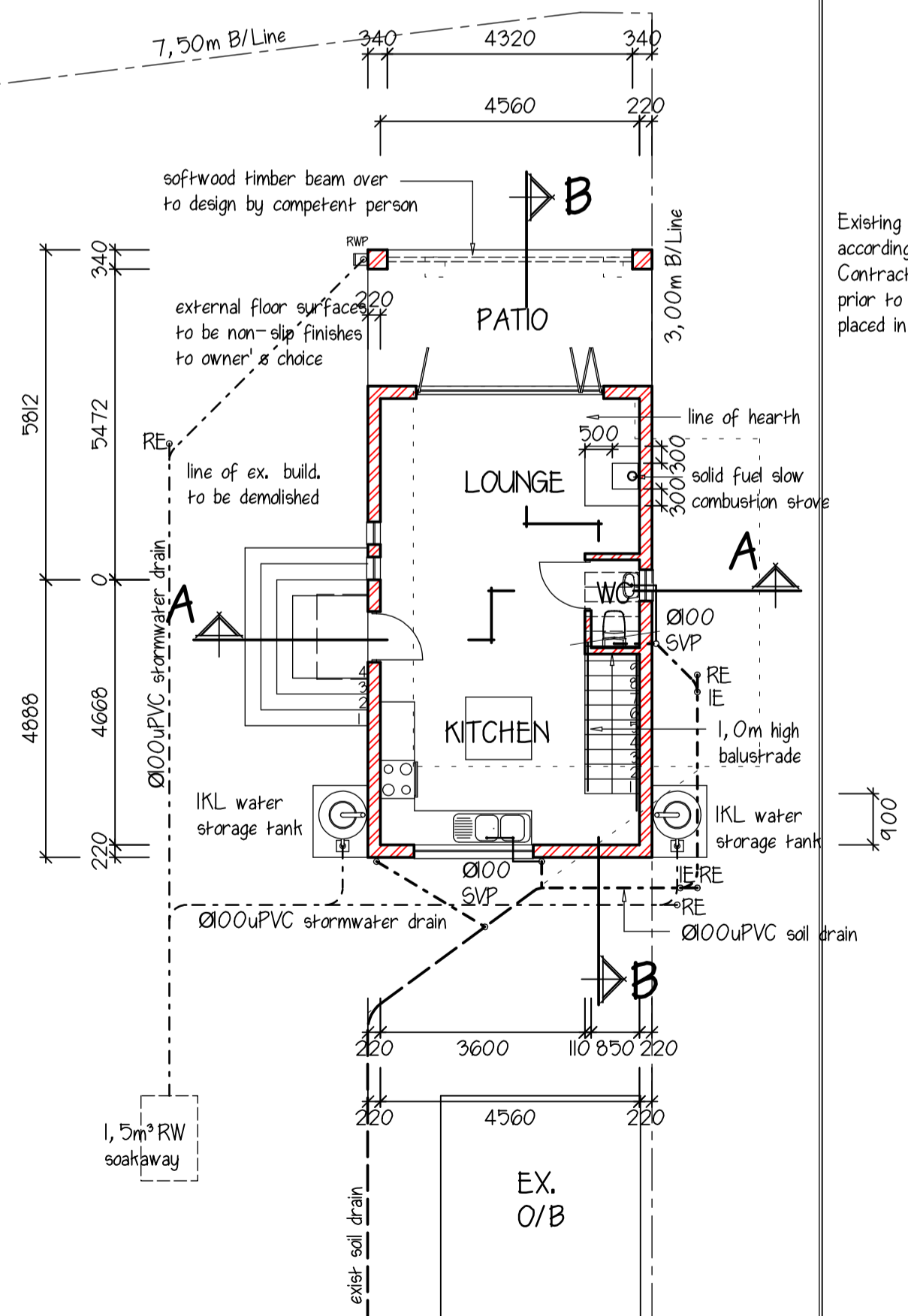
The author WILL NOT be held liable for any unauthorized building work commencement.

ACCURACY
 All dimensions and levels given to be verified on site before commencement of work or with manufacturer of pre-constructed components or systems & architectural professional to be notified immediately of any discrepancies.

Work from figured dimensions only and where dimensions are given these are in mm unless otherwise stated - DO NOT SCALE DRAWINGS.

Overall external dimensions to take precedence & contractor to locate & expose corner beacons before building work is commenced on the site.

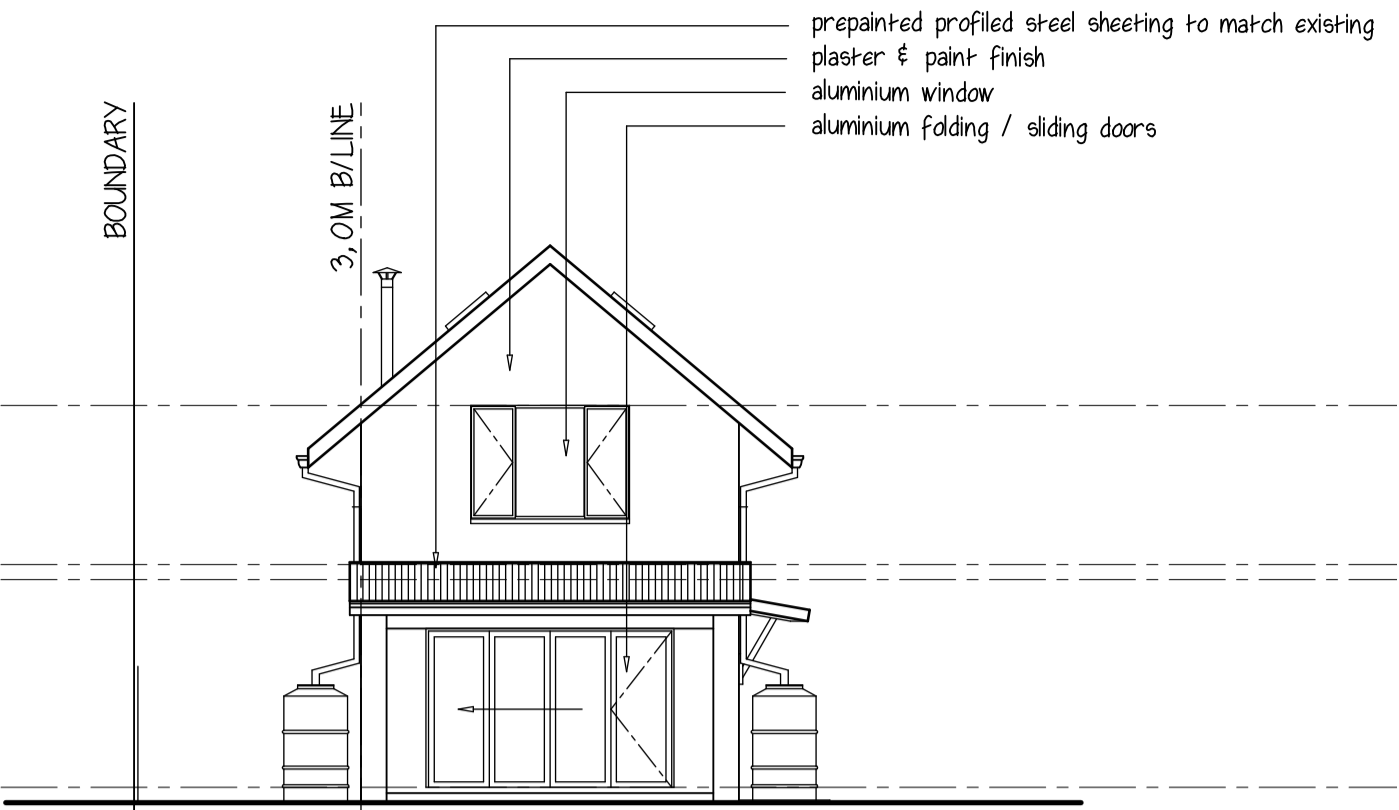
Where doubt exists or further clarification is required - ASK.



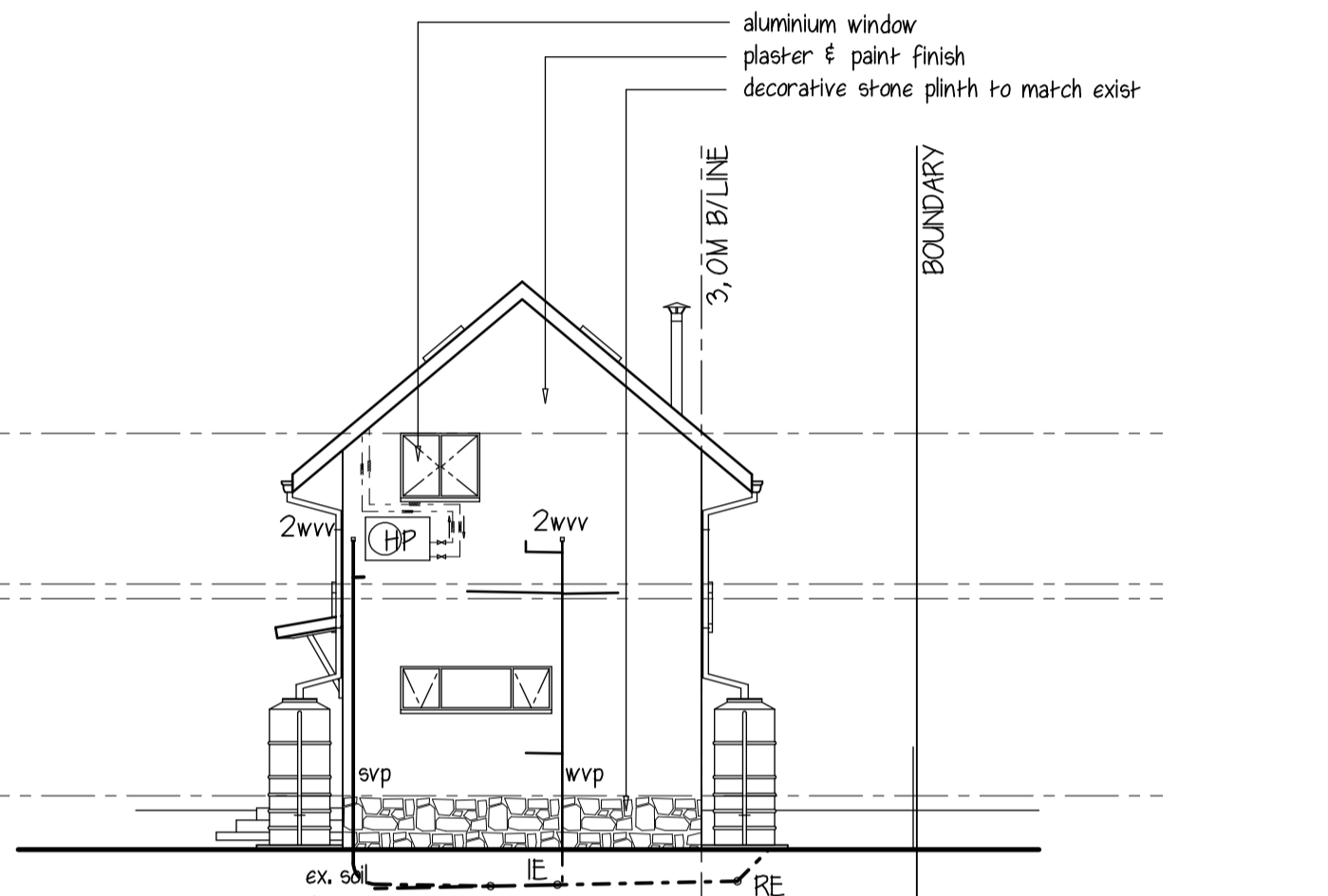
GROUND STOREY

| AREAS | |
|------------------------|---------|
| EX. DEMOLISHED | 38,38m² |
| PROPOSED GROUND STOREY | 41,50m² |
| FIRST STOREY | 38,10m² |
| PATIO | 12,00m² |
| AWNING | 1,35m² |

| SITE AREA | |
|---------------------------|----------|
| ZONING - | SR 1800 |
| PERMITTED F. A. R. (0,35) | 724,50m² |
| PERMITTED COVERAGE (30%) | 621,00m² |
| EXISTING F. A. R. | 145,20m² |
| EXISTING COVERAGE | 187,10m² |
| DEMOLISHED F. A. R. | 38,50m² |
| DEMOLISHED COVERAGE | 38,50m² |
| PROPOSED F. A. R. | 74,60m² |
| PROPOSED COVERAGE | 42,93m² |
| TOTAL F. A. R. | 186,00m² |
| TOTAL COVERAGE | 241,25m² |

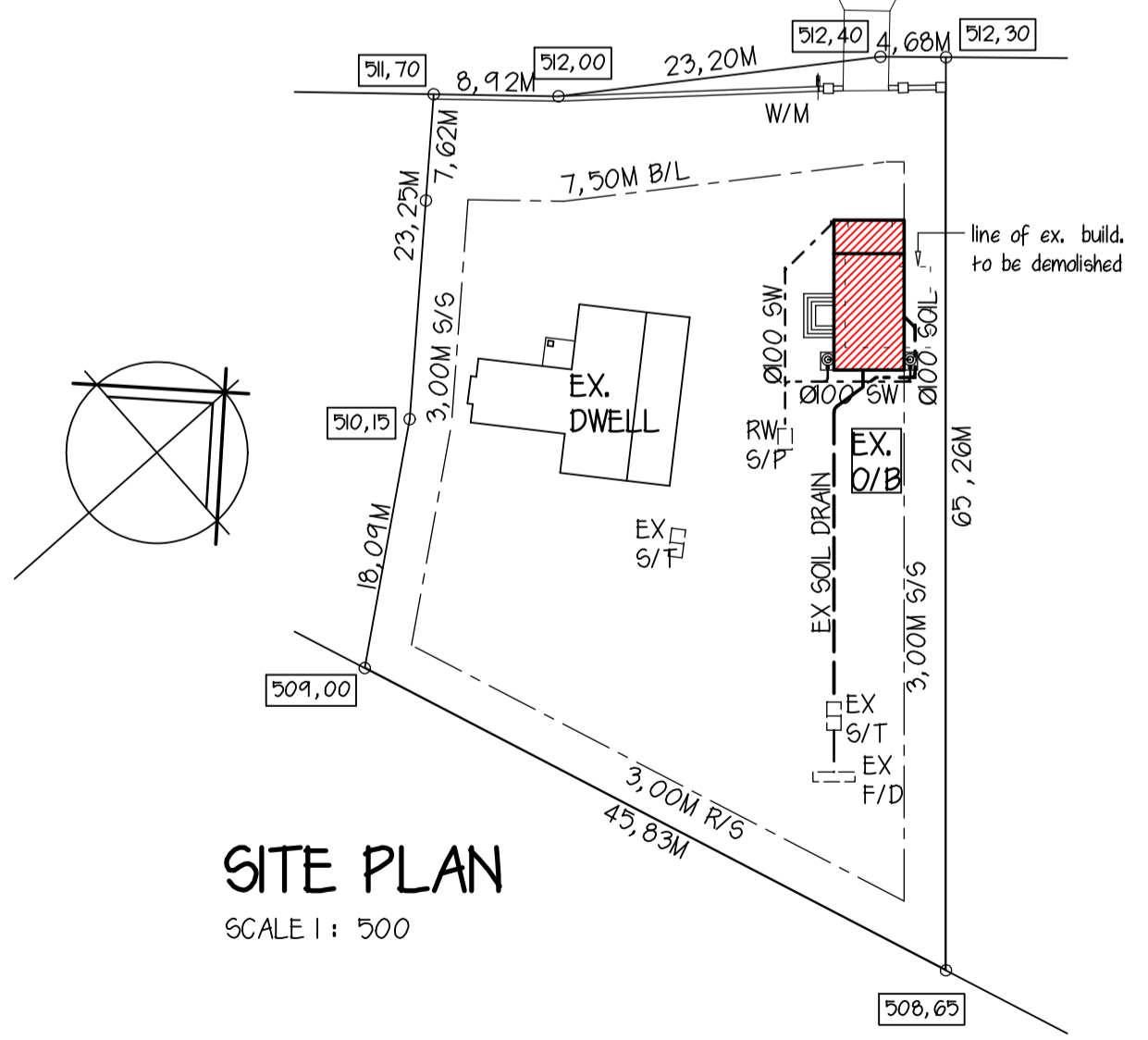


NORTH WEST ELEV.



SOUTH EAST ELEV.

KLOOF FALLS ROAD
 (12,50M WIDE)



SITE PLAN
 SCALE 1: 500

ON-SITE SEWAGE DISPOSAL
 The development proposal is located within an existing established urban context underlain by a Minor Aquifer and the site is dependant on greywater disposal via the ground.

The extent of the development conforms with the requirements contained in the General Authorisation 21(g) of the National Water Act with water for drinking purposes provided via a municipal supply.

The development impact & risk to health is therefore considered to be of no greater impact than already existent or as envisaged by the Act.

| | |
|---------------------------------|----|
| Climatic Zone as per SANS 204 | 5 |
| Occupancy as per SANS 10400-A20 | H3 |

PROPOSED ANILLARY UNIT FOR B & T WILSON
 AT 49 KLOOF FALLS ROAD
 ON REM OF ERF 1397
 OF KLOOF

WILSON
 2020-41 sheet 1

NBR ASSESSMENT APPLICATION
 scale date drawn
 1/100 & 1/500 08 FEB. 2021 M. KEUTER
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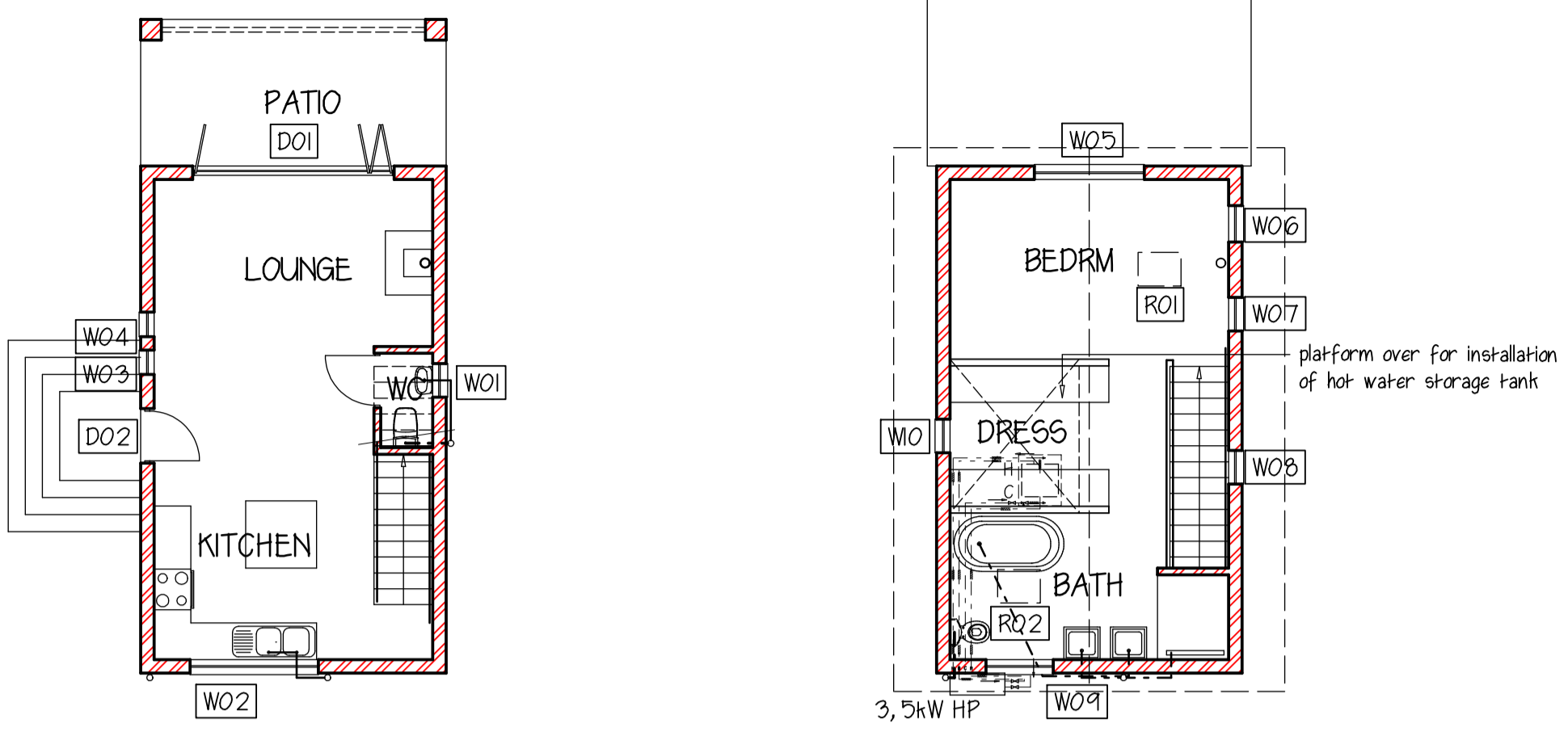
THE DRAWING STUDIO
 PO Box 160 TEL: 031 764 2401
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 sharon@drawingstudio.co.za
 marcel@drawingstudio.co.za

BUILDING APPLICATION

APPROVED in Terms Section 7 of the National Building Regulations and Building Standards Act No. 103/1977

2021-06-28

LOCAL AUTHORITY
This plan is approved on the basis of the information shown herein. Attention is drawn to the attached documentation & that this approval shall lapse ONE year after the above approval date, unless the erection of the building in terms of NBR Act 103/1977 is commenced

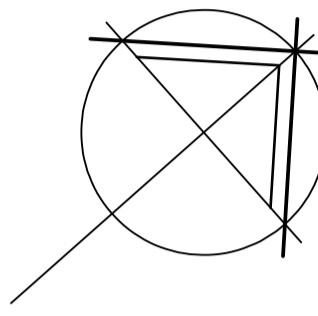


EE - GROUND STOREY

NET FLOOR AREAS

| | |
|---------------|--------|
| GROUND STOREY | 35,6m² |
| FIRST STOREY | 32,0m² |

EE - FIRST STOREY



PLUMBING / DRAINAGE WORK

All plumbing work shall be undertaken only by a trained plumber or person under the adequate control of a trained plumber or approved competent person.

The appointed trained plumber shall furnish the owner upon completion and testing of the plumbing work with a Certificate of Compliance for the plumbing installation.

Drainage installation shall be designed, installed and tested in accordance with SANS 10400-P taking account of the design hydraulic loads, that no nuisance or danger to health will be caused, drains being capable of sustaining actions subject to and protected from drainage, sanitary fixtures being easily accessible, and access for inspection, cleaning and maintenance being provided.

MATERIAL, PIPES, FITTINGS & JOINTS

Joints between pipes or pipes and fittings shall remain water-tight under normal working conditions or where differential movement between pipes and building or ground might occur, and withstand internal water pressure of 50kPa and external water pressure of 30kPa without leaking.

SANITARY FIXTURES

Sanitary fixtures shall be impermeable, non-corrosive material with a smooth and readily cleanable surface and discharge into a soil pipe or waste pipe via a trap.

Water supply outlet to any waste fixture shall not be less than 20mm above the flood-level rim of the fixture.

TOILET PAN

Toilet pan shall comply with SANS 497, be securely fixed, have a separate flushing device, and connect to a soil pipe through an accessible joint.

The toilet pan connector shall be compliant with SANS 4633, not of the concertina type.

SEPTIC TANKS / FRENCH DRAINS

Septic tanks shall be designed and constructed to be impervious to liquid and not become a source of nuisance or danger to health or the structural integrity of adjacent buildings, be sited to allow a ready means of access for clearing of the tank, and vented by open vent pipe at the building.

Septic tank, min. 1,5m, shall be sized in accordance with requirements of Annex C of SANS 10400-P, be covered with a layer of soil at least 150mm thick, be provided with a means of access for the purpose of emptying and cleaning, and connected to a french drain.

Septic tank shall be constructed, where of masonry in accordance with the requirements of SANS 2001-CC2/CM/EM, or where prefabricated in accordance with SANS 52566-1.

French drain shall be constructed and located to not cause the pollution of any spring, stream, well or other source of water, and not adversely affect the foundations of adjacent buildings.

French drain shall be sized in accordance with the in-situ percolation test and requirements of SANS 10400-P.

Pipes discharging into french drains shall be open jointed or perforated.

The top of the infiltrative surfaces shall be protected by means of either a polyester filter fabric or a 30mm to 100mm thick layer of fine gravel or coarse sand. A top soil layer between 100mm and 150mm shall be placed on top of the drain over an impermeable covering.

An inspection pipe shall be installed in a french drain in accordance with SANS 10400-P.

ARTIFICIAL LIGHTING

Artificial lighting installations shall be in accordance with requirements of SANS 10114-1 and, where applicable, exceed the minimum requirements of the Occupational Health and Safety Act, No. 85 of 1993.

Lighting to be provided LED or CFL type lamps and luminaires throughout to satisfy the requirements of SANS 10400-XA.

Recessed luminaires & their ancillary equipment shall be installed in a manner to minimize temperature rise and prevent the risk of fire, and ensure the necessary cooling air movement through or around the luminaire is not impaired by the thermal insulation or other material.

ROOF ASSEMBLIES

Metal roof sheeting fixed to metal purlins, metal rafters or metal battens shall have a thermal break installed between the metal roof sheeting and support member of material with an R-value not less than 0,2.

SINGLE STACK DRAINAGE SYSTEM

Any supplementary vent stack, where required, shall be cross-connected at each storey with the discharge stack.

Discharge stack shall continue upwards to form a stack vent and shall have a bend at the foot of the stack with a centre line radius not less than 300mm.

Waste fixture traps shall be P-traps with min 75mm water seal or resealing type.

The centre line of opposing waste and soil branch pipes shall not intersect the centre line of discharge stack within a vertical distance of 100 mm of each other.

Fixture branch of a sanitary fixture shall be connected separately to the discharge stack in a residential class of building and soil and waste discharge branches in an office class building shall connect separately to the discharge stack.

Internal diameter of a fixture branch serving a washbasin with a nominal outlet Ø32mm shall be not less than 40mm.

Maximum nominal internal diameter of a discharge stack shall be 100mm, waste discharge pipe 40mm, and soil discharge pipe 100mm.

Minimum nominal internal diameter of a drain shall be 100mm and not have a gradient less than 1:60.

Trap vents shall be provided for the protection of waste water seals where required in accordance with SANS 10400-P.

Ventilating pipe shall be provided for a main and branch drain at a point more than 6,0m from the head of such drain.

Ventilating pipe shall be provided for a waste pipe or waste branch pipe longer than 6,0m.

The nominal internal diameter of a ventilating pipe to a drain or branch carrying a hydraulic load not more than 50 fixture units shall be 40mm.

The nominal internal diameter of a stack vent shall be not less than discharge stack to which connected, or nominal internal diameter of 40mm where stub stack requires a stack vent or a two storey high discharge stack serves a maximum of two groups of sanitary fixtures.

Installation of a discharge pipe or ventilating pipe shall:

- Not be deformed in any way that would restrict flow,
- Be so installed that no bend forms an acute angle,
- Be safely supported at intervals along its length without restraining thermal movement,
- Be provided with a means of access for internal cleaning.

Ducts provided for discharge pipes shall be readily accessible for cleaning and provide access to all junctions, bend and cleaning eyes.

Discharge and ventilating pipes shall be protected against vehicular impact.

Two way vent valves shall only be located in the open air.

ACCESS TO DRAINAGE INSTALLATION
Access to the interior of any pipe shall be provided in accordance with SANS 10400-P for the purposes of inspection, testing and internal cleaning.

Access to any drain or discharge pipe that passes through a room used as a kitchen, pantry, or for the preparation, handling, storage or sale of food, access to the drain or pipe for cleaning purposes shall be provided outside such room, except waste pipes serving a waste fixture in which room.

Access to drain or discharge pipe shall have a screwed or bolted air tight cover.

Rodding eyes shall be joined to the drain in the direction of flow at an angle of not more than 45° and adequately supported up to ground level, marked and protected.

Access shall be provided to any part of a drainage installation that passes under a building outside of, and as near as possible to the building at each point of entry to, or exit from under the building with no access from within the building.

Any lid covering an opening giving access to a drainage installation shall remain effective under all working conditions and remain fit for its intended purpose in terms of SANS 10400-P.

TRAPS

Sanitary fixture traps in compliance with SANS 1321 shall comply with the requirements contained in SANS 10400-P.

GULLIES

The surface level of the water in the gully shall be not more than 500mm below the overflow level of the gully and the water seal maintained by at least one waste pipe discharging therein.

The floor draining towards an accessible trapped waste water floor drain shall have a gradient of not less than 1:200, be non-absorbent and of corrosion-resistant material, have a removable grating, and its water seal maintained by a trap situated above it or a waste discharge pipe discharging directly into the gully above the level of the water seal.

A grease trap shall be provided where the waste water discharge from a sink or other fixture discharging to a french drain.

Any gully shall be situated outside of the building, or in any place permanently open to the external air.

INSTALLATION OF DRAINS
Drains shall be installed in accordance with the requirements of SANS 1200-DB, 1200 LB and 1200 LD, be protected against transmission of loads to it, be provided with suitable means of clearing from outside the building, supported throughout its length without restricting thermal movement, any supports securely fixed to the building, with any junction, bend or point of access readily accessible.

Installations shall be laid in a straight line between changes in direction or gradient, with flexible joints and gradient suitable for the hydraulic load to be carried, and where gradients exceed 1:5 provided with anchor blocks.

Minimum 300mm soil cover or 500mm wide precast or cast-in-situ concrete slabs over 100mm soil cushion shall be provided over drains.

Branch drains shall be connected by means of junction fitting, not saddle fitting, at included angle not exceeding 45°.

GREASE INTERCEPTOR
A grease interceptor shall be provided where grease, fat or vegetable oil could cause an obstruction to the flow in any drain.

TESTING
The drainage installation shall only be put into use after the installation has been inspected, tested and passed by the local authority.

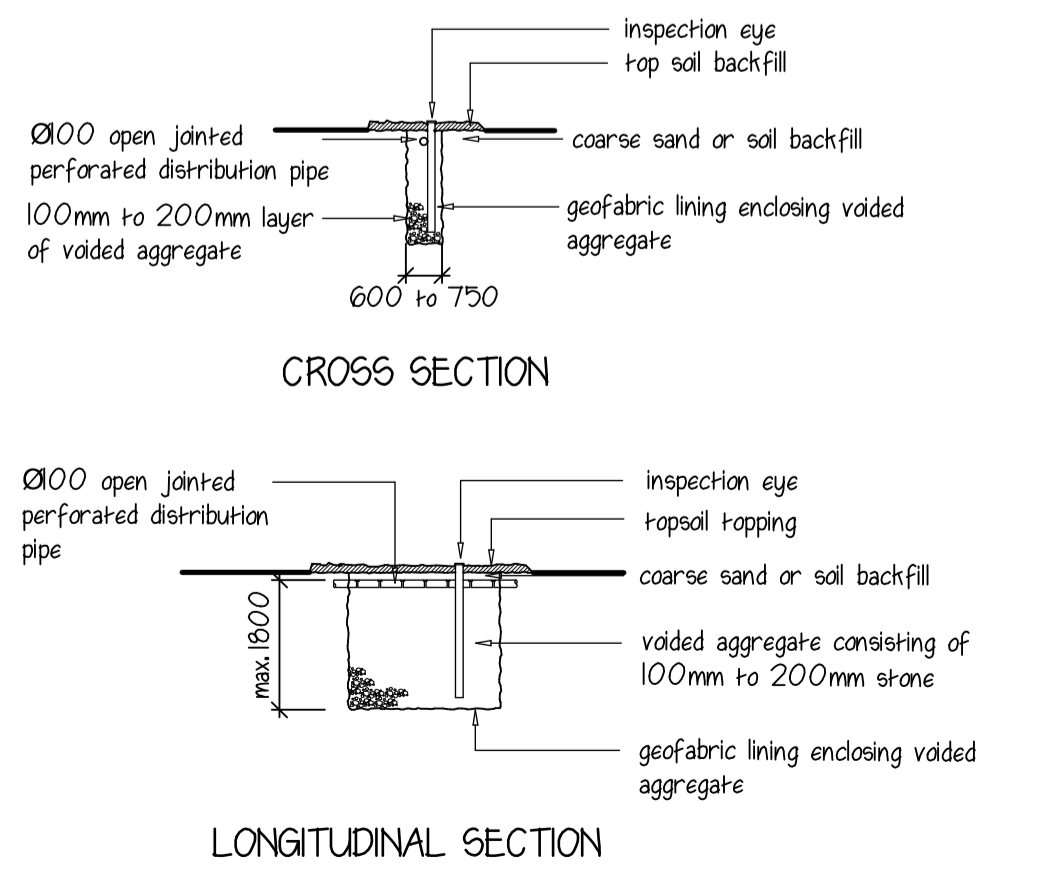
Any drain, discharge pipe or ventilating pipe shall be installed to withstand the test pressures contained in SANS 10400-P and such tests shall be carried out in the presence of the building control officer, or other duly authorised officer of the local authority.

ELECTRICAL INSTALLATION

All electrical work shall be undertaken only by a registered electrical contractor or person under the adequate control of a registered electrical contractor in accordance with SANS 10142.

The appointed registered electrical contractor shall upon completion and testing of the electrical work furnish the owner with a Certificate of Compliance for the electrical installation.

ON-SITE SEWER DISPOSAL CALCULATIONS
1 Bedroom dwelling with 3yr cleaning frequency
Minimum septic tank provided = 1,5m³
Design application rate = 108L/m²
Seepage flow +15% contingencies = 863L/d
French drain size provided = 2,63 x 0,7 x 1,2
Calculations i. t. o. 4. 8.10 of SANS 10400-P



TYPICAL FRENCH DRAIN DETAIL

| Window/door number | DO1 | WO1 | WO2 | WO3 & 4 | WO5 | WO6 | WO7 | WO8 | WO9 | WO |
|-----------------------------|------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|------------------------|------------------------|---------------------------|
| Frame material | ALUMINIUM | ALUMINIUM | ALUMINIUM | ALUMINIUM | ALUMINIUM | ALUMINIUM | ALUMINIUM | ALUMINIUM | ALUMINIUM | ALUMINIUM |
| Frame type | SLIDE/FOLDING | SIDE HUNG | SIDE HUNG | SIDE HUNG | SIDE HUNG | SIDE HUNG | SIDE HUNG | SIDE HUNG | SIDE HUNG | SIDE HUNG |
| glazing material | TOUGHENED SAFETY GLASS | MONOLITHIC ANNEALED GLASS | MONOLITHIC ANNEALED GLASS | MONOLITHIC ANNEALED GLASS | MONOLITHIC ANNEALED GLASS | MONOLITHIC ANNEALED GLASS | MONOLITHIC ANNEALED GLASS | TOUGHENED SAFETY GLASS | TOUGHENED SAFETY GLASS | MONOLITHIC ANNEALED GLASS |
| no. of sides supported | ALL SIDES | ALL SIDES | ALL SIDES | ALL SIDES | ALL SIDES | ALL SIDES | ALL SIDES | ALL SIDES | ALL SIDES | ALL SIDES |
| glazing pane min. thickness | 5mm | 4mm | 4mm | 4mm | 4mm | 4mm | 4mm | 5mm | 5mm | 4mm |
| glazing pane max. area | 3,0m² | 1,5m² | 1,5m² | 1,5m² | 1,5m² | 1,5m² | 1,5m² | 3,0m² | 3,0m² | 1,5m² |

WINDOW SCHEDULE

| | |
|---------------------------------|----|
| Climatic Zone as per SANS 204 | 5 |
| Occupancy as per SANS 10400-A20 | H3 |

PROPOSED ANILLARY UNIT FOR B & T WILSON AT 49 KLOOF FALLS ROAD ON REM OF ERF 139 7 OF KLOOF

Wilson *Wilson*

WILSON

2020-41 sheet 3

NBR AGGREGMENT APPLICATION

scale: 1/100 & 1/500 date: 08 FEB. 2021 drawn: M. KEUTER

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| S.L. KEUTER SACAP No. ST0112 M. KEUTER SACAP No. ST0111 | PR. SNR. ARCH. TECH. SAIAT 70720 PR. SNR. ARCH. TECH. SAIAT 60211 |
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