

ROOF PLAN Scale 1:100

MAIN BEDRM

LIVING ROOM F

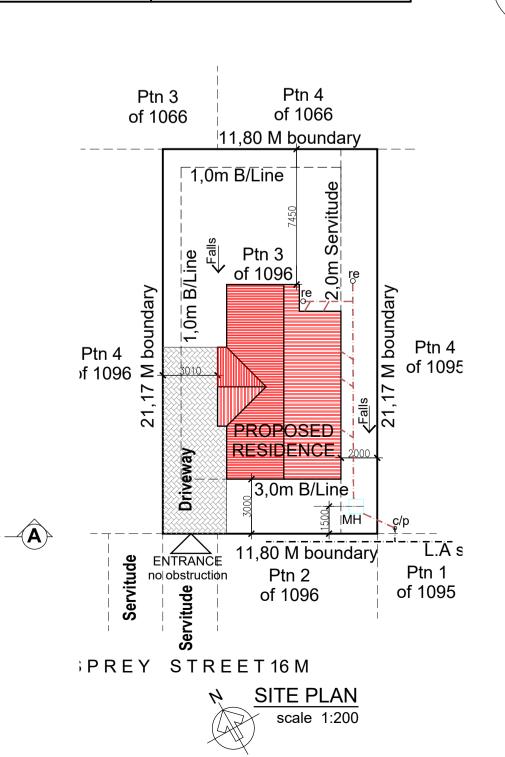
FLOOR PLAN

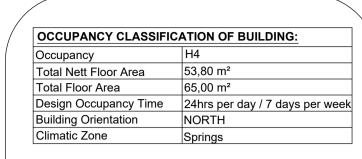
Scale 1:100

Area = $65,0 \text{ M}^2$

BEDRM

\	VINDOW SC	HEDULE	
TYPE: PT	T1515	TYPE:	PT99
	750 092 1003	450	1063
QTTY: I	FOUR (04)	QTTY:	THREE (03)
LOCATION	ORIENTATION	LOCATION	ORIENTATION
LIVING ROOM	SOUTH EAST ELEVATION	BATHROOM	SOUTH WEST ELEVATION
MAIN BEDROOM	NORTH EAST ELEVATION	KITCHEN	SOUTH WEST ELEVATION
BEDROOM 1	SOUTH WEST ELEVATION	ENSUITE	NORTH WEST ELEVATIO
BEDROOM 2	NORTH EAST ELEVATION		
FRAME DESCRIF	PTION	FRAME DESCR	IPTION
STANDARD ANODIZED ALUM. FRAME COMPLETE WITH BEADING. WINDOW FRAMES TO BE FITTED AFTER THE BRICKWORK.ALL AS PER THE MANUF. SPECS.		BEADING. WINDOW FR	ALUM. FRAME COMPLETE WITH AMES TO BE FITTED AFTER THE ER THE MANUF. SPECS.
FINISH		FINISH	
ANODIZED.		ANODIZED.	
GLAZING		GLAZING	
10400 PART N. 6MM CLEA	SAFETY GLASS AS PER SANS R TOUGHENED SAFETY USED TO FIX GLASS INTO	10400 PART N. 6MM CL	BE SAFETY GLASS AS PER SANS EAR/OBSCURE TOUGHENED NGS TO BE USED TO FIX GLASS





SANS 10400XA COMPLIANCE CALCULATIONS: DEEM TO SATISFY

Glazing					
REF NR.	WIDTH	HEIGHT	AREA	QTY	TTL AREA
PT1515	1.500m	1.500m	2.25 m ²	4	9.00 m ²
PT99	0.900m	0.900m	0.81 m ²	3	2.43 m ²
SD1821	1.800m	2.100m	3.78 m ²	1	3.78 m ²
		Total	Glazing		15.21 m²

CHECK FOR COMPLIANCE WITH SANS 10400XA CALCULATIONS

Nett Floor Area:
Glazing Area:

(glazing area / nett floor area) x 100 = ***** [<15%] (15.21 m² /53.80 m²) x 100 = 28<u>.27% [>15%]</u>

Do not comply with max 15% as per SANS 10400XA

Where the total area of the glazing elements of a storey is greater than 15% of the nett floor area of the storey the requirements contained in SANS 204 shall be complied with

HOT	WATER	SERV	ICES

Daily hot water usage	
Type of accomodation	Dwelling houses - Medium rental : 115-140 L/capita/day
No. of persons	4 per day
Assumed daily hot water consumption	560 L
Assumed annual hot water consumption	203.84 kL - based on daily design occupancy per week
50% of annual hot water consumption	101.92 kL - To be provided by means other than electrical heating

Dwelling to be provided with min 280L water vesel. Electrical and Solar heating system combination, installled by specailist and shall comply with SANS 1307, 10106, 10254 and SANS 10252-1

Insulation Requirements:	
Internal diameter of Hot water pipe	= 80
Min required R - value for Pipe insulation	1.0
Hot water Vesseld / Tanks:	

CEILING

200mmØ R

ROOM

KITCHEN

BEDROOM 1

BEDROOM 2

BATHROOM

ENSUITE

TOTAL

LIVING ROOM

decorative

AREA SCHEDULE

MAIN BEDROOM 11,5 M²

WALLS/PASSAGE 11,2 M²

TTL FL. = $65,0 \text{ M}^2$

Stand Area = 250 M²

Coverage = 26,0 %

Plaster & paint

SOUTH WEST ELEVATION

scale 1:100

PTT1515

AREA M²

13,4 M²

 $7,7 \, M^2$

 $6,8~M^2$

7,3 M²

3,6 M²

 $3,5 M^{2}$

65,0 M²

ENERGY CONSUMPTION: LIGHTING

	ALLO\	WED:	5 W/m ²		
	CALC	ULATION:			
7	Total V	Vatt / Nett flo	or area =	= ****l	V/m²
		Lights in	dwelling		
		DISCRIPTI	ON	QTY	TOTAL
	\sim				

ENERGY DEMAND

91 W / 53,80 m² = **1.691 W/m**² [<5 W/m²]

DO COMPLY

ENERGY CONSUMPTION

Max Allowed = 269.00 kWh.a

ALLOWED: 5 kWh/m².a [a =1 (year)] 5 kWh/m².a x nett floor area = ****kWh.a 5 kWh/m^2 .a x 53.80m^2 = 269.00 kWh.a

CALCULATION:

DO COMPLY

ASSUMPTIONS: Assume lights lamps are on from 17:00 -22:00 each day/year , that is 5 h/day

-52 (weeks) x 7 (days) x 5 (hours) = 1820 h.a -91 W = 0.091 kW

0.091kW x 1820 h.a = 165,62 **kWh.a** [< 269.00 kWh.a]

ROOF ASSEMBLY:

|--|

Occupancy	H4
Design Occupancy Time	24hrs per day / 7 days per week
Climate Zone	Springs
Minimum R-value required	3.20 m ² K/W
Direction of heat flow	Up

CALCUL ATION

CALCULATION	
Basic Roof Assembly	Concrete tiles
R- value for Metal Sheeting	0.3 m ² K/W
R-Value of Ceiling	0.05 m ² K/W
TOTAL R - Obtained	0.35 m²K/W

Obtained R-Value =>Minimum R-value required Do Not Comply with SANS 10400 XA Additional Insulation required With at least

R-Value of 2.85 m²K/W **SANS 204:**

Roof venting	Unventilated
Basic Roof Construction	Concrete tiles @ 17-20° pito
	w/ plasterboard ceiling
Direction of heat flow	Up
Min R- value insulation required	2.85 m ² K/W
Additional Thermal Insulation	Flexible fibre glass blanket 10-18 kg/m²

It's recommended that a Flexible fibre glass blanket, with a thickness of 115 mm needs to be installed in order to

F.G.L

achieve the additional min R-value of 2.85 m²K/W Buildings with a floor area of less than 500 m2, with a concrete slab-on-ground, shall have insulation installed around the vertical

edge of its perimeter which shall:

a) have an R-value of not less than 1,0,

b) resist water absorption in order to retain its thermal insulation properties, and

c) be continuous from the adjacent finished ground level

1) to a depth of not less than 300 mm, or

2) for the full depth of the vertical edge of the concrete slab-on-ground.

MAIN BEDRM 1X13W CF **BEDRM 1** 1X13W CF 1X13W_CF KITCHEN LIVING ROOM

Scale 1:100 Area = 65.0 M^2

FLOOR PLAN

Thermal Insulation: (As per SANS 10252-1: 2012)

4.5.2.6 Hot water vessels and tanks shall be insulated with a material achieving a minimum

vapour barrier on the outside of the insulation. 4.5.2.8 The piping insulation requirements do not apply to space heating water piping

b) encased within a concrete floor slab or in masonry. These pipes shall comply with SANS 10252-1.

150 mm Bricks

— 12 mm Plaster

Surface Bed

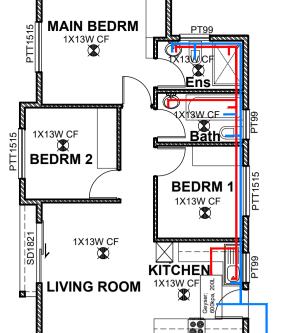
Ground Level

/ ENGINEERS SPECIFICATION

Scale 1:25

ACCORDING TO SANS 10400- Part H

General Slab Insulation Detail



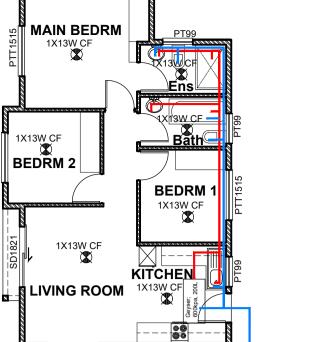
Hot Water Supply (As per SANS 10400 XA:2011)

with the requirements given in SANS 10252-1. 4.5.2.4 All exposed pipes to and from the hot water cylinders and central heating systems shall bein sulated with pipe insulation material with an R-value in accordance with table 13. 4.5.2.5 Insulation shall a) be protected against the effects of weather and sunlight,

NOTE To achieve this value, insulation in addition to the manufacturers' installed insulation may 4.5.2.7 Insulation on vessels, tanks and piping containing cooling water shall be protected by a

a) located within the space being heated where the piping is to provide the heating to that space,

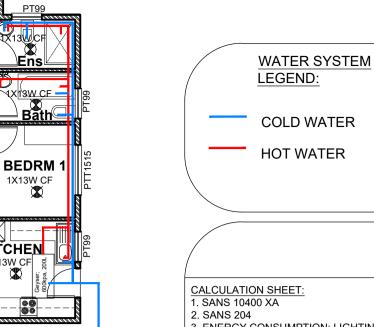
4.5.2.9 Piping to be insulated includes all flow and return piping, cold water supply piping within 1 m of the connection to the heating or cooling system and pressure relief piping within 1 m of the connection



4.5.2.1 A min. of 50 % by volume of the annual average hot water heating requirement shall be provided by means other than electrical resistance heating, including, but not limited to, solar heating, heat pumps, heat recovery from other systems or processes. 4.5.2.2 The solar water heating systems shall comply with SANS 1307 and SANS 10106, based on the thermal performance determined in accordance with the provisions of SANS 6211-1 and SANS 6211-2. The installation thereof shall comply with SANS 10254. 4.5.2.3 Hot water usage should be minimized and the system maintained in accordance

b) be able to withstand the temperatures within the piping, and c) achieve the minimum total R-value given in table 25

1	2
Internal diameter of pipe mm	Minimum R-value*
≤ 80 mm > 80 mm	1,00 1,50



- B. ENERGY CONSUMPTION: LIGHTING
- ENERGY DEMAND ENERGY CONSUMPTION
- 1. HOT WATER SERVICES/ SUPPLY 5. EXTERNAL WALL CONSTRUCTION
- 5.1 ALTERNATIVE WALL CONSTRUCTION

REQUIRMENTS

RESPONSIBILITY

THE OWNER ACCEPTS ALL

RESPONSIBILITY FOR NONE

LOCAL MUNICIPALITY

MUNICIPALITY .

EXTERNAL WALL CONSTRUCTION

Conductivity

(W/m.°C)

0.6

0.7

0.6

|Wall type

Minimum CR-value

External Plasterwork

Conclusion:

CALCULATION

Minimum R-value required 0.35

0.35 for external walls

Conc roof tiles

colour: Terra-cota

Plaster & paint

110mm Ø uPVC to SABS sewer pipe

PT99

zink 💙

__ie____

SANS 10400 Table 3 - Minimum CR-value, in hours, for external

COMPLIANCE TO SANS 10400XA AND

ONCE THE PLAN IS APPROVED BY THE

SANS 204, SHOULD THERE BE ANY DEVIATION FROM THE DESIGNED PLAN,

THE COMPLETED FORMS TO BE

Masonry: Single masonry wall,

Thickness

0.015

0.230

0.015

Total R-value Achived

Wall complies with minimum R-value of

Resistivity

(m²K/W)

0.03

0.33

0.03

0.39

CEILING

scale 1:100

Profiled cement tiles on 38x38

branders on SABS-approved

manufactured trusses

underlav on 152x52mm s.w

Roof pitch 26°

plastered internally and externally

SUBMITTED TO THE LOCAL

- 6. ROOF ASSEMBLY . UNDER FLOOR HEATING
- ALL CALCULATIONS ARE BASED ON THE DRAWING DESIGNS AND WINDOWS SCHEDULES.

ANY CHANGE ON SITE WILL HAVE AN

EFFECT ON THE CALCULATIONS. construction and submission of tenders. If in doubt ask the Architect. - Contractors are to ensure that all details shown on this drawing are compliance with local authority BEFORE ANY CHANGES, THE PLANNED by-law and regulations. CHANGES MUST BE RECALCULATED TO - Contractors are to locate and identify existing services on site and to protect these from damage hroughout the duration of the works. ENSURE COMPLIANCE WITH SANS

10400XA AND SANS 204 AND OTHER - All glazing to comply with NBR (SANS10400 - Part N) SABS 0137 & AAMSA. REFERED SANS COMPLIANCE Glazing Max. Size Pane Nominal glass thickness

GENERAL NOTES:

- No construction may proceed on site prior to the approval of drawings by the local authority. Any building work that commences prior to the building plan approval is completely at the owner's own risk. - The Architect may not be held responsible for any loss or damage whatsoever that may result from

- Contractor to verify all levels, heights and dimensions on site and to check same against the drawings

reference to boundaries, building lines, etc. Any errors, discrepancies or omissions to be reported to the

- Contractor responsible to engage Building Inspector on each Construction Stage, to get full satisfaction

in compliance with Local Authority by-law and regulations. - Burnt clay bricks only shall be used unless

- The following certificates of compliance to SABS and NBR standards may be required from the

- All finishing products such as windows frames, roof, tiles, cornices, etc must be approved by the

- Quality of all materials and workmanship to comply with the relevant SABS and SANS specifications and shall conform to the Standards specified in the Standard Preambles in the Bill of Quantities available for

- Contractor is to build in approved DPC's whether or not these are shown on drawings to all external

- All works must comply to the National Building Regulations and applicable SABS and NHBRC

- Drawings may not be scaled for construction purposes. Figured dimensions to be used at all times.

- Any discrepancies on drawings must be pointed out by the Contractor to the Architect prior to

walls at each floor, beam or parapet level and to all window, door, grill or other opening in external walls

- All product used must comply with SABS standards and Local Authority Requirements.

specific approval is obtained from the Architect alternative type of bricks.

Conditions: The civil/structural engineer is responsible for soil test.

before putting any work in hand. Levels are approximate and must be verified by the Contractor prior pricing and construction. Relative floor levels will be determined after installation of master datum.

- Any discrepancies on drawings must be pointed out by the Contractor to the Architect prior to - Contractor is responsible for correct setting out of the buildings, all external walls with particular

1. Contractor Notes:

Architect immediately.

2. Certificates required:

DPC: Council Inspector.

the Architect:
FOUNDATION CERTIFICATE: Engineer.

PLUMBING AND DRAINAGE: Specialist Sub-contractor ELECTRICAL INSTALLATION: Specialist Sub-contractor.

TRAFFIC and ROAD MARKINGS: Engineer.
FIRE SAFETY CERTIFICATE: Specialist and/or Council.

CONCRETE SLABS: Specialist Sub-contractor.

WATERPROOFING: Specialist Sub-contractor

All partition work to comply with SABS 082 on NBR.

4. Building Standard Notes:

- All drawings must be read in conjunction with one another.

- Notes reflected on drawings apply for the entire project and works.

GLAZING: Specialist Sub-contractor

perusal at the Architect's office.

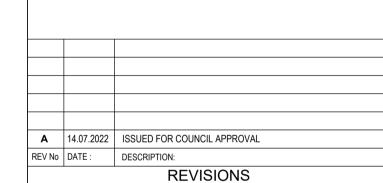
3. Materials and Finishes Notes:

Architect before ordering and installation

ROOF STRUCTURE: Specialist Sub-contractor and/or Engineer.

- Any pane of glass installed in any door shall be safety glass and shall have a nominal thickness of not less than 6mm and doors not likely to be apparent to any person approaching them shall bear markings. Any glass lower than 500mm from floor finish shall be safety glass. Any window at staircases must be

6. Flashing Notes: Provide 0.6mm flashing at all parapets and areas where the roof line changes. 7. Brickwork Expansion Joints Notes: Refer to Engineer for brickwork expansion joints. 8. Revisions: Refer to drawing list for latest revisions on drawings. Any queries arising from all the above must be reported to the Architect for clarification before any work in



client

Ntombiyona Tshabalala

SIZE ON ORIGINAL DRAWING 100 mm

Client Approval



Proposed Residence On Portion 3 of ERF 1096 Lelspreeu St Sharon Park Lifestyle Estate Ext 2 T/Ship

FOR APPROVAL						
Plans, Elevations & Sections						
Checked	REG. NO.					
DT	(SACAP) ST2553					
DRWG No.	Scale					

as shown

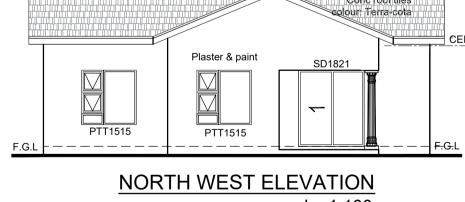
Oct 2022

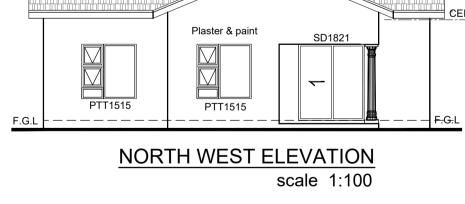
Conc roof tiles lour: Terra-cota NORTH WEST ELEVATION

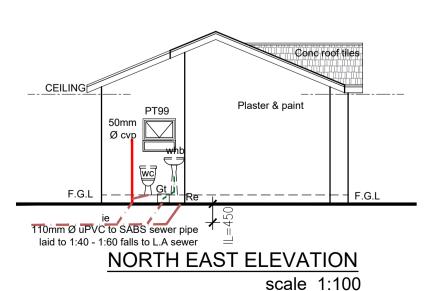
30mm thick Isoboard

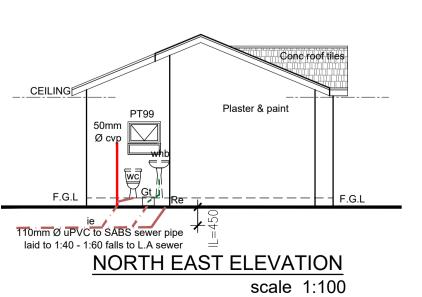
Insulation according

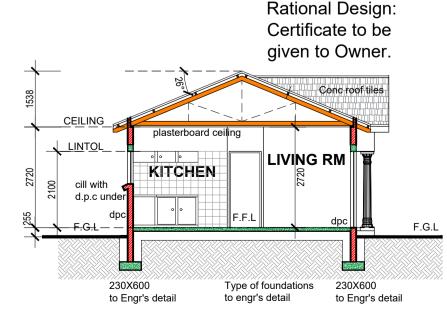
to engineer











CEILING		•			
	plasterboard cei	ling			
LINTOL					
	0 0 0	LIVI	NG RM	🕱	
	KITCHEN		2720		
g cill with		4	2		
✓ d.p.c under					
dpc		F.F.L			
F.G.L — —		1	dpc	F.G	.L
					/////
230X	/X/X/X/X/X/X/X/X/X/X/ (600	Type of foundate	\/\/\/\/\/\/\ tione 230	//>//>//>//>/ X600	/>/,
		to engr's detail		ngr's detail	
to Li	igi o dotali	to origi o dotaii	to L	ingi 5 dotali	
	S	ECTION	J A-A		
	•		. , . , .		

scale 1:100

on114x38mm s.w wallplate with

design.

laid to 1:40 - 1:60 falls to L.A sewer SOUTH EAST ELEVATION

SABS-approved insulation on 38x38mms.w branders @600mmc/c one way and 450mm c/c other way to take 12.5mm plasterboard ceiling with 76mm coved cornice or approved similar. R.c beams to all door and window openings externally b.o.e cills c/w d.p.c Specified floor finish on 40mm s/c screed on 150mm reinforced conc. slab on black polythene d.p.m under screed on 50mm sand blinding layer on 150-200mm well compacted imported hardcore in 50mm lavers at 98% AASHTO Foundations to structural engr's

Founds depth 700mm Min to be determined on site