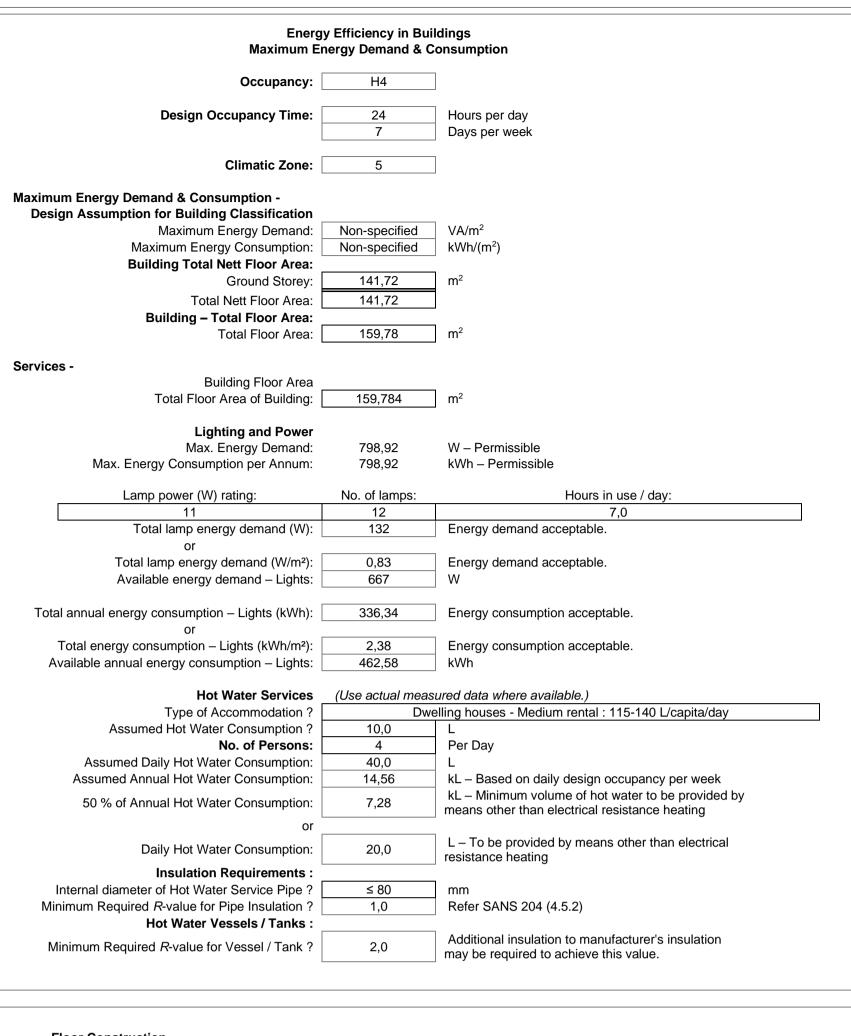


PROJECT: PROP. SECOND DWELLING & ENCLOSURE OF PORCH ADDRESS: 36 BLYTHSWOOD ROAD TEL NO: 031 205 8919 CADASTRAL DESCRIPTION SITE CLASS CLIENT: INDUSTRIAL RUBBER AND ENGINEERING SUPPLIERS CC SIGNATURE SCALE DWG NO. AUTHOR AS SHOWN S.R Design Consultants For All You<u>r</u> Ar<u>ch</u>itectural Meads OFFICE: 41 Dipdale Road, Malvern, Queensburgh 405 DIRECTOR- Selvan Reddy SACAP - T0756 (PAT)/MSAIBD (Reg. Energy Efficiency competent professional) Office: 031 464 1209 Cell: 061 483 7365

OFFICE STAMP

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Slab-on-ground		
Concrete slab-on-ground?	Yes	7
In-slab heating to be provided ?	No	1
Suspended floor		_
Suspended floor as building envelope?	Yes]
In-slab heating to be provided ?	No]
		_
Floor Insulation Requirements -		
Slab-on-ground	NI-	7
Perimeter insulation required?	No	_
Under-floor insulation required ?	No	
Suspended floor Insulation of partial or unenclosed exterior perimeter required?	No	7
Perimeter & under-floor insulation required ?	No	_
r chineter a under noor insulation required :	140	
External Wall Construction -		
SANS 10400-XA Required R-value		7
Wall Type ?	Masonry	
Minimum R-value required:	0,35	Refer SANS 10400-XA (4.4.3) & SANS
	<u>'</u>	204 - Table 4 and Advisory Note. Double-skin masonry wall, no cavity,
		plastered internally or rendered
Compliar	at macanty walling:	externally, or
Compilar	nt masonry walling:	Single-leaf masonry wall, nominal wall
		thickness not < 140 mm, plastered
SANS 204 Required CR-value		internally and rendered externally.
Minimum CR-value required:	60	Hours
Advisory Note -		sonry walls only in terms of SANS 204
,		
Double brick wall types:		o cavity
CR-value:	40	CR-value of wall insufficient.
Pacía Assamblica		
Roofs Assemblies -		
SANS 10400-XA Required <i>R</i> -value	2 70	m²-K/W
SANS 10400-XA Required <i>R</i> -value Minimum Total <i>R</i> -value required:	2,70 Down	m²-K/W
SANS 10400-XA Required R-value Minimum Total R-value required: Direction of heat flow:	2,70 Down	m²-K/W
SANS 10400-XA Required <i>R</i> -value Minimum Total <i>R</i> -value required:	Down	<u> </u>
SANS 10400-XA Required R-value Minimum Total R-value required: Direction of heat flow: Construction Type R-value	Down	m²-K/W sheeting type m²-K/W
SANS 10400-XA Required R-value Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly:	Down Metal s	heeting type
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation:	Down Metal s 0,36	heeting type m²-K/W
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value	Down Metal s 0,36 0,05	heeting type m²-K/W m²-K/W
SANS 10400-XA Required R-value Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value	Down Metal s 0,36 0,05 2,29	heeting type m²-K/W m²-K/W
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value	Down Metal s 0,36 0,05 2,29 Unventilated	heeting type m²·K/W m²·K/W m²·K/W
SANS 10400-XA Required R-value Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value	Down Metal s 0,36 0,05 2,29 Unventilated	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction?	Down Metal s 0,36 0,05 2,29 Unventilated	heeting type m²·K/W m²·K/W m²·K/W
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting?	Down Metal s 0,36 0,05 2,29 Unventilated	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof	Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow:	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective)	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³)	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00 0,22 0,06	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³) Indoor air film (still air)	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00 0,22 0,06 0,16	m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above rafter
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³)	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00 0,22 0,06	heeting type m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³) Indoor air film (still air)	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00 0,22 0,06 0,16	m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above rafter
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³) Indoor air film (still air) Total R-value	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00 0,22 0,06 0,16	m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above rafter
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³) Indoor air film (still air) Total R-value Thermal Insulation	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00 0,22 0,06 0,16 0,47	m²-K/W m²-K/W m²-K/W 2-12° pitch w/ sloped ceiling above rafter m²-K/W m²-K/W
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³) Indoor air film (still air) Total R-value Thermal Insulation Minimum added R-Value of insulation required:	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00 0,22 0,06 0,16 0,47	m²-K/W m²-K/W m²-K/W © 2-12° pitch w/ sloped ceiling above rafter m²-K/W m²-K/W Refer SANS
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³) Indoor air film (still air) Total R-value Thermal Insulation Minimum added R-Value of insulation required: Generic insulation product added?	Down Metal s 0,36 0,05 2,29	m²-K/W m²-K/W m²-K/W m²-K/W © 2-12° pitch w/ sloped ceiling above rafter m²-K/W m²-K/W m²-K/W m²-K/W m²-K/W
Minimum Total R-value required: Direction of heat flow: Construction Type R-value Basic roof assembly: R-value for roof covering material: R-value for ceiling: Required added R-value for insulation: SANS 204 Required R-value Construction Type R-value Roof venting? Basic roof construction? Basic R-value for Roof Direction of heat flow: Outdoor air film (7m/s) Metal cladding Roof air space (100 mm to 300 mm, non-reflective) Plasterboard, gypsum (10 mm, 880 kg/m³) Indoor air film (still air) Total R-value Thermal Insulation Minimum added R-Value of insulation required:	Down Metal s 0,36 0,05 2,29 Unventilated Metal cladding 6 DOWN 0,03 0,00 0,22 0,06 0,16 0,47	m²-K/W m²-K/W m²-K/W © 2-12° pitch w/ sloped ceiling above rafter m²-K/W m²-K/W Refer SANS

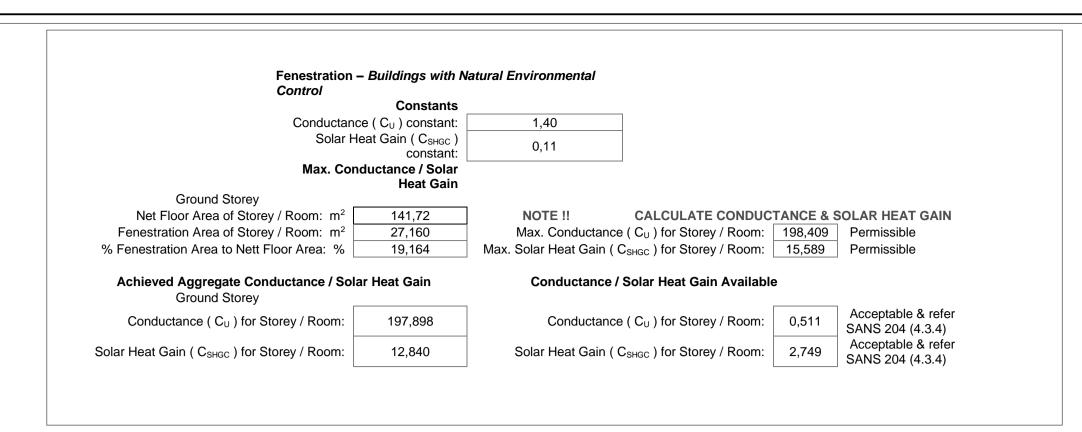


TABLE 1 Glazing Elements		Glazing Element Size		Glazing Element Rating		Sector	Shading			Solar Expos ure	Proposed				
Storey Level	Identifier No:	No. of Units	Width (m)	Height (m)	Area	U- value	SHGC	Orientation	Proje ction (m)	Height ¹ (m)	Height ² (m)	P/H	Factor (E)	Conduc tance	SHG
									(P)	(H)	(G)				
Ground Storey	D4	1,000	1,400	2,100	2,940	7,9	0,81	South West	1,000	2,600	0,500	0,385	0,800	23,226	1,905
Ground Storey	W5	2,000	2,400	1,600	7,680	5,73	0,66	South West	1,000	2,100	0,500	0,476	0,750	44,006	3,802
Ground Storey	W6	2,000	0,500	1,600	1,600	7,9	0,81	South West	1,000	2,100	0,500	0,476	0,750	12,640	0,972
Ground Storey	EXW1	1,000	2,000	1,500	3,000	7,9	0,81	South East	0,300	2,000	0,500	0,150	1,000	23,700	2,430
Ground Storey	EXW2	1,000	1,000	1,200	1,200	7,9	0,81	South East	0,300	1,700	0,500	0,176	1,000	9,480	0,972
Ground Storey	EXW3	1,000	0,700	1,000	0,700	7,9	0,81	South East	0,300	1,500	0,500	0,200	1,000	5,530	0,567
Ground Storey	EXW4	1,000	2,400	1,600	3,840	7,9	0,81	North East	2,200	2,100	0,500	1,048	0,260	30,336	0,809
Ground Storey	EXW2	1,000	1,000	1,200	1,200	7,9	0,81	North East	0,300	1,700	0,500	0,176	0,640	9,480	0,622
Ground Storey	EXW1	1,000	2,000	1,500	3,000	7,9	0,81	North West	3,400	2,000	0,500	1,700	0,200	23,700	0,486
Ground Storey	EXW2	1,000	1,000	1,200	1,200	7,9	0,81	North West	3,400	1,700	0,500	2,000	0,170	9,480	0,16
Ground Storey	EXW5	1,000	0,500	1,600	0,800	7,9	0,81	North West	5,000	2,100	0,500	2,381	0,170	6,320	0,110
-					27,160							9,169			

EX. ROOF

EX. STAIR

VCLOSURE OF W5) ← EX. COLUMN

FOUNDATION

EX. PORCH

SECTIONAL ELEVATION B-B

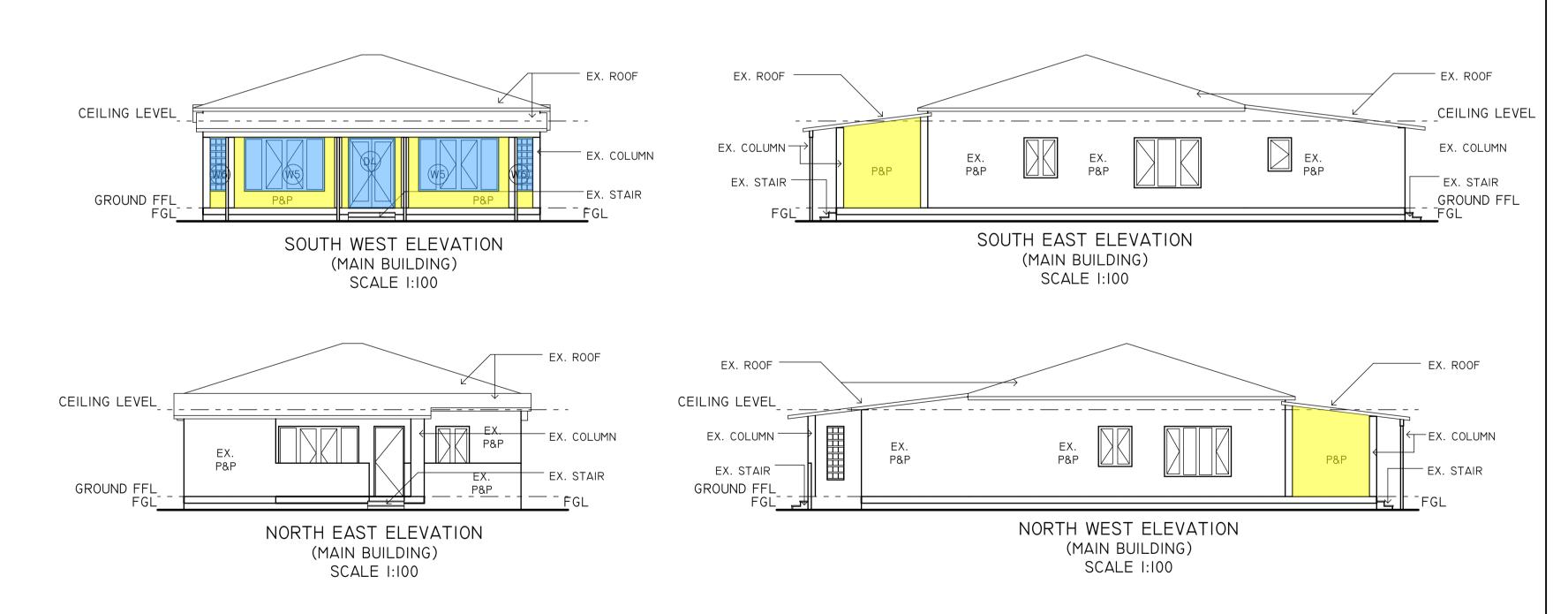
SCALE I:100

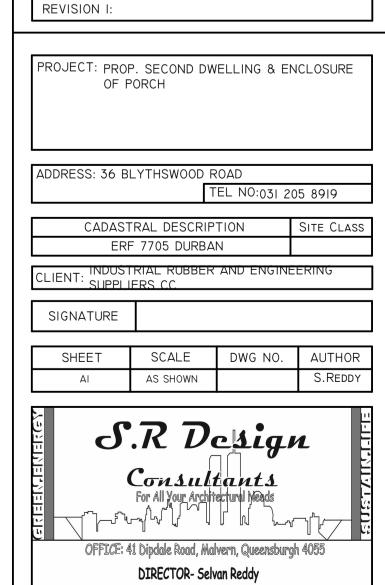
FOUNDATION

CEILING LEVEL

GROUND FFL

MAIN BUILDING





SACAP - T0756 (PAT)/MSAIBD

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REVISION 3: REVISION 2: Office stamp

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