

ROOF CONSTRUCTION

02 PREFERABLE
 $R = R_{re} + R_{ci} + R_{gl} + R_{in}$
 CLAY TILES 0.84 W/mk
 FIBRE GLASS 0.04 W/mk
 GYPSUM BOARD 0.17 W/mk

$3.2 = 0.04 + 0.02 + 0.84 + 0.55 + 0.04 + 0.06 + 0.17 + 0.11 = 0.04 + 0.02 + 0.55 + 0.04 + 0.06 + 0.17 + 0.11$

$3.2 = 0.759 + 0.0044 = 0.0976$

97.6 FIBRE GLASS IS REQUIRED
 THEREFORE 100mm THICK FIBRE GLASS

GENERAL NOTES

ALL WORK TO COMPLY WITH LOCAL AUTHORITY AND NER BY-LAWS.
 READ FIGURED DIMENSIONS IN PREFERENCE TO SCALING. THE CONTRACTOR MUST VERIFY ALL SURVEYORS PEGS, MARKERS, LEVELS, HEIGHTS AND DIMENSIONS ON SITE AND TO CHECK SAME AGAINST ALL SETS OF DRAWINGS. CONTRACTOR IS TO HOLD AN APPROVED EPIC'S WHETHER OR NOT THESE ARE SHOWN ON DRAWINGS, TO ALL EXTERNAL WALLS AT EACH FLOOR, PARAPET LEVEL AND TO ALL WINDOWS, DOORS OR OPENINGS IN EXTERNAL WALLS. LINTELS ABOVE ALL DOORS, WINDOWS AND ARCHES. 100 X 80 CSI GUTTERS AND DOWNPIPES.

ENERGY CONSUMPTION IN BUILDING

5 kWh/m² x 828.9m² = 4144.5 kWh.a
 LIGHTS FROM 17:00 - 22:00

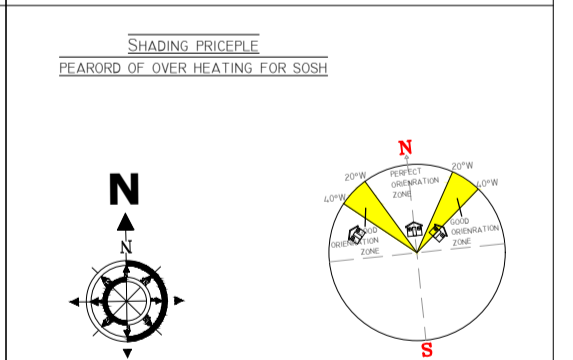
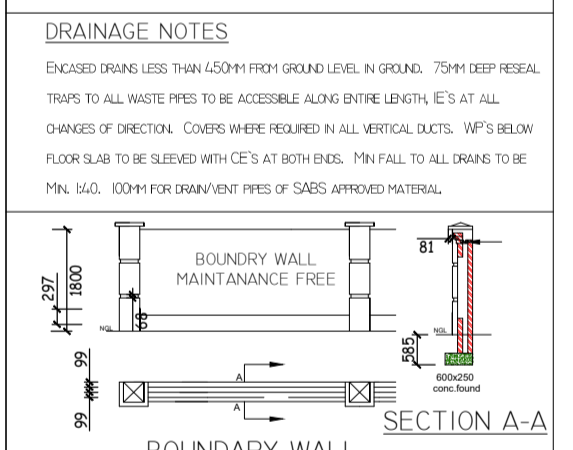
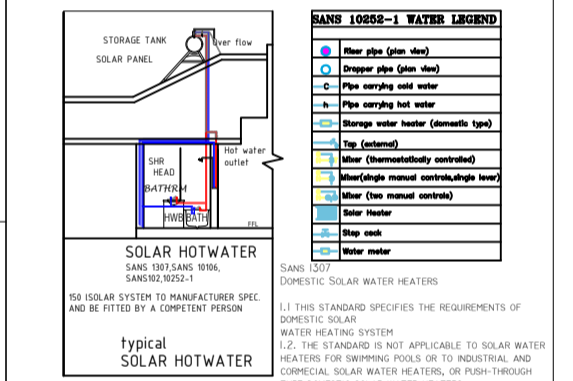
LAMP
 LED DOWN LIGHTS 12 WATTS x 151 = 1812 WATTS
 1812 WATTS / 828.9 m² = 2.19 W/m²
 52 (WEEKS) x 7 (DAYS) x 5 (HOURS) = 1820 H.a
 LAMPS = 1812 / 1000 = 1.812
 1.812 kW x 1820 H.a = 3297.8 (4144.5 kWh.a)

BUILDING OCCUPANCY CLASSES

REGULATION APPLICABLE TO GREEN BUILT SECTION	REGULATION APPLICABLE TO GREEN BUILT SECTION
1. ACCESSIBILITY	1. ACCESSIBILITY
2. AIR QUALITY	2. AIR QUALITY
3. BOUNDARY WALLS	3. BOUNDARY WALLS
4. CAR PARKING	4. CAR PARKING
5. ELECTRICAL	5. ELECTRICAL
6. ENVIRONMENTAL	6. ENVIRONMENTAL
7. GLAZING	7. GLAZING
8. HEATING	8. HEATING
9. HOT WATER	9. HOT WATER
10. INSULATION	10. INSULATION
11. LIGHTING	11. LIGHTING
12. PLUMBING	12. PLUMBING
13. ROOFING	13. ROOFING
14. SECURITY	14. SECURITY
15. SOUND	15. SOUND
16. STRUCTURE	16. STRUCTURE
17. THERMAL	17. THERMAL
18. VENTILATION	18. VENTILATION
19. WATER	19. WATER
20. WINDOWS	20. WINDOWS

INTERNAL WALL CALCULATION

WALL	U VALUE	Area (m ²)	U x Area
R1 + R2 + R3 + R4	0.05	0.0000	0.00
R5	0.05	0.00	0.00
R6	0.05	0.00	0.00
R7	0.05	0.00	0.00
R8	0.05	0.00	0.00
R9	0.05	0.00	0.00
R10	0.05	0.00	0.00
R11	0.05	0.00	0.00
R12	0.05	0.00	0.00
R13	0.05	0.00	0.00
R14	0.05	0.00	0.00
R15	0.05	0.00	0.00
R16	0.05	0.00	0.00
R17	0.05	0.00	0.00
R18	0.05	0.00	0.00
R19	0.05	0.00	0.00
R20	0.05	0.00	0.00
R21	0.05	0.00	0.00
R22	0.05	0.00	0.00
R23	0.05	0.00	0.00
R24	0.05	0.00	0.00
R25	0.05	0.00	0.00
R26	0.05	0.00	0.00
R27	0.05	0.00	0.00
R28	0.05	0.00	0.00
R29	0.05	0.00	0.00
R30	0.05	0.00	0.00
R31	0.05	0.00	0.00
R32	0.05	0.00	0.00
R33	0.05	0.00	0.00
R34	0.05	0.00	0.00
R35	0.05	0.00	0.00
R36	0.05	0.00	0.00
R37	0.05	0.00	0.00
R38	0.05	0.00	0.00
R39	0.05	0.00	0.00
R40	0.05	0.00	0.00
R41	0.05	0.00	0.00
R42	0.05	0.00	0.00
R43	0.05	0.00	0.00
R44	0.05	0.00	0.00
R45	0.05	0.00	0.00
R46	0.05	0.00	0.00
R47	0.05	0.00	0.00
R48	0.05	0.00	0.00
R49	0.05	0.00	0.00
R50	0.05	0.00	0.00

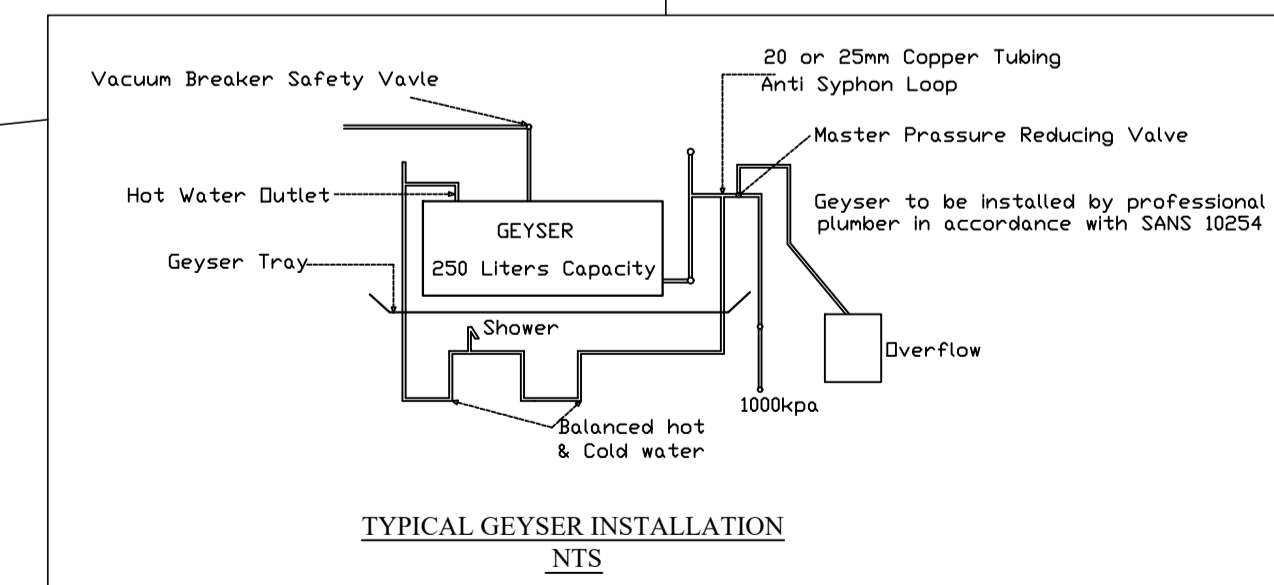
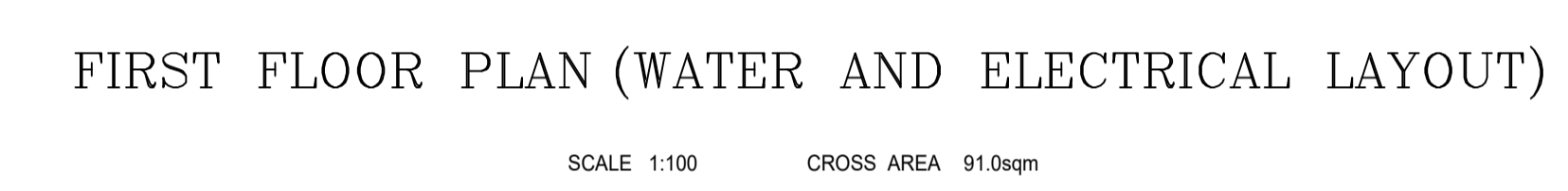
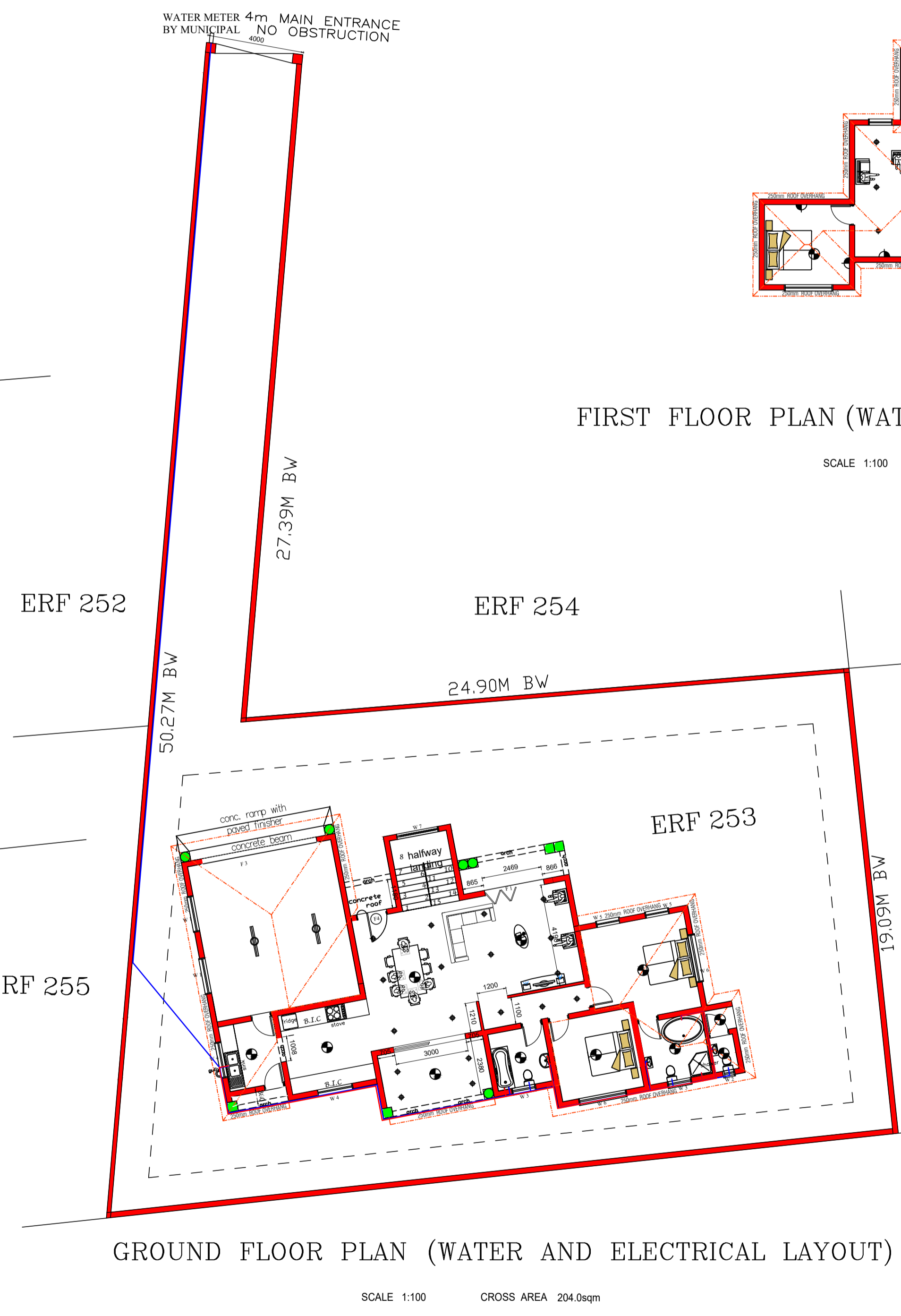
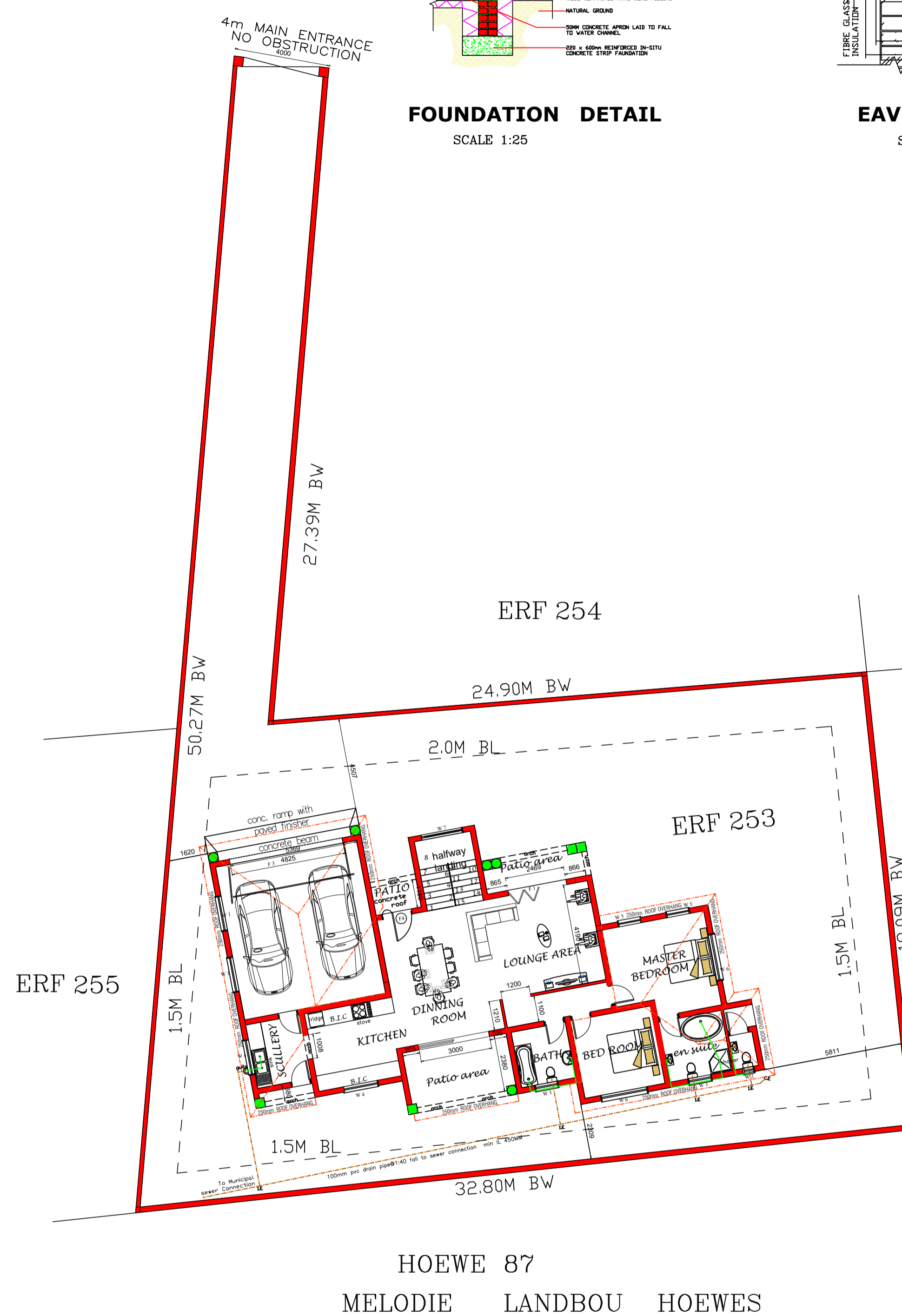


HOT WATER CALCULATIONS

CALCULATED AS PER SANS 10252-1:2004
 ESTIMATED DAILY DEMAND 180LT
 STORAGE TANK CAPACITY 200LT

ALL HOT WATERPIPES MUST BE INSULATED WITH THERMAL INSULATION WITH A THERMAL RESISTIVITY OF AT LEAST 1 CONCLUSION

THE DESIGN COMPLIES WITH THE REQUIREMENTS SANS 10252-1:2004 AND SANS 10252-1:2004 FOR HOT WATER CALCULATIONS



MASHUDU BUILDING DESIGNER
 RAMAANO MASHUDU
 Expertise : House Plan
 Cell: (071) 216 6629
 : (071) 276 6629
 E-mail : shanc.ramaano@gmail.com

DRAWING TITLE
 SITE PLAN, ELECTRICAL DETAIL
 COLD WATER AND HOT WATER LAYOUT

ENGINEER'S SIGNATURE

ENGINEER'S REF Number

DRAWING NUMBER :
 29 / 07 / 2019

SHEET 2 OF 2

PROJECT

PROPOSED NEW DWELLING HOUSE FOR MR N.A. MAHADA

EFR NO : 253, MELODIE X8 BOUGAINVILLE ESTATE

Owner :

Signature:

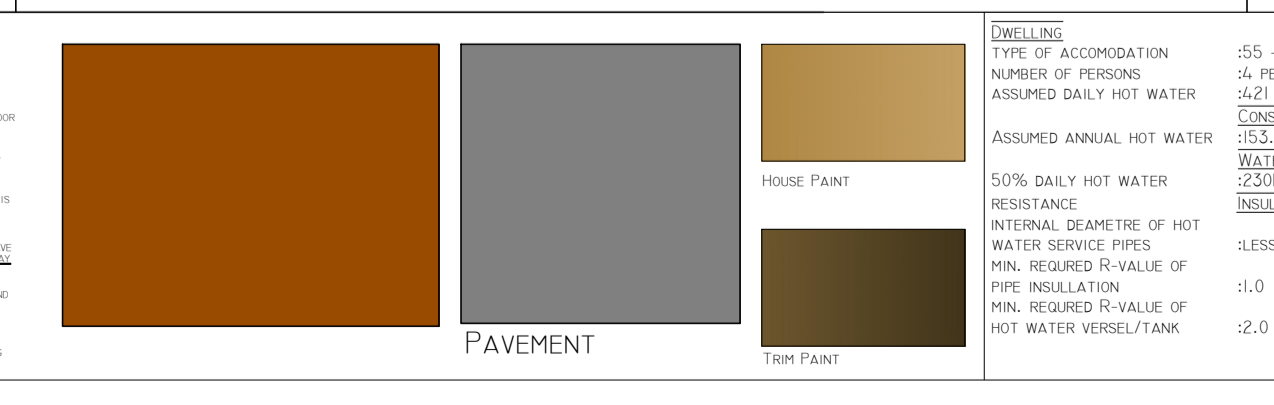
Cell : (072) 871 5349
 : (072) 562 5833
 E-mail : neron.mahada@gmail.com

AREA SCHEDULE

FLOOR	AREA (sqm)
GROUND FLOOR	204.0sqm
FIRST FLOOR	91.0sqm
OUTBUILDING	00.0sqm
TOTAL AREA	295.0sqm
SITE AREA	775.0sqm
COVERAGE	26.32%

FINISHES

WALLS: 10mm Gypsum Board
 FLOORS: 10mm Ceramic Tiles
 CEILING: 6mm Gypsum Board
 ROOF: 100mm Concrete Slab
 WINDOWS: 1000x1500mm
 DOORS: 2100x1000mm



INSULATION

WALLS: 100mm EPS
 FLOORS: 100mm EPS
 CEILING: 100mm EPS
 ROOF: 100mm EPS