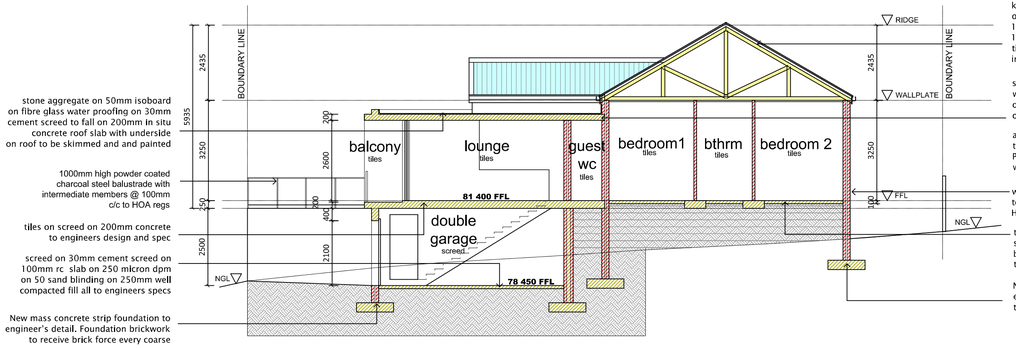
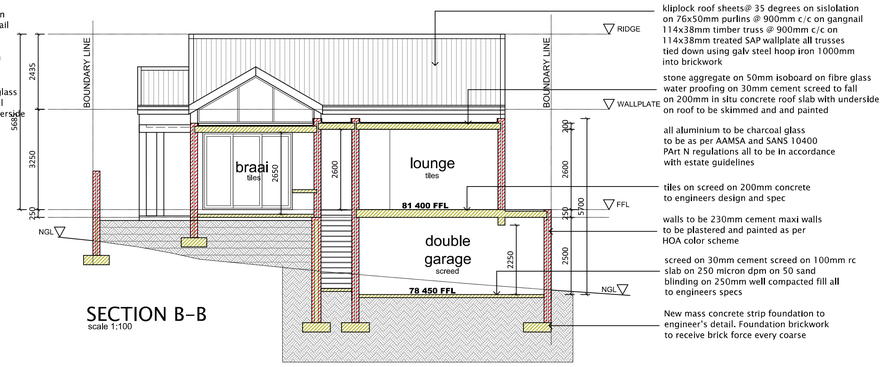
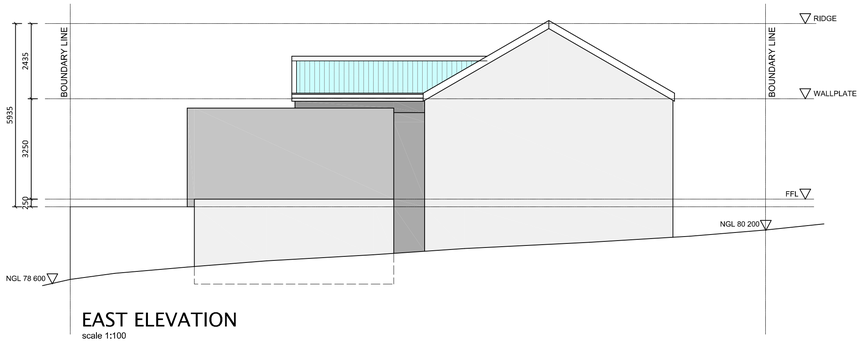


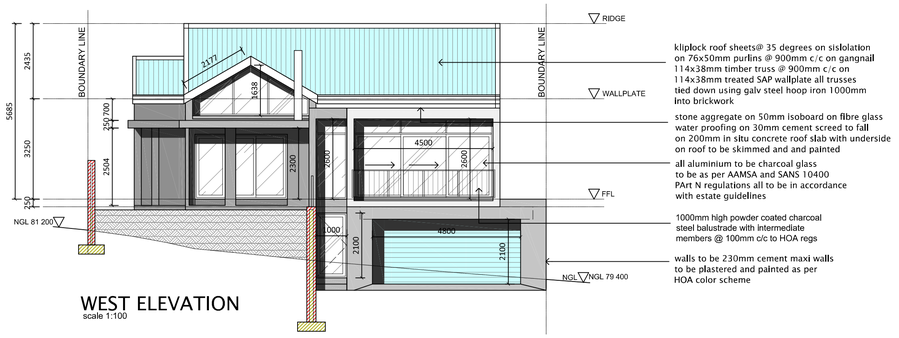
SECTION A-A
scale 1:100



SECTION B-B
scale 1:100



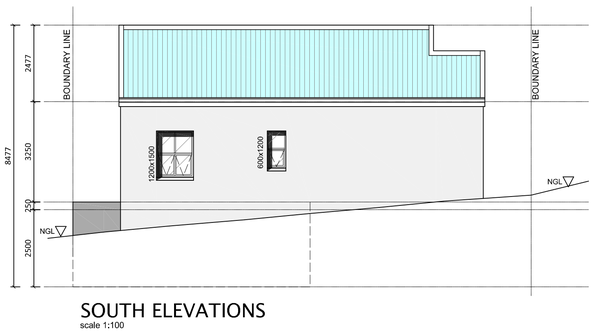
EAST ELEVATION
scale 1:100



WEST ELEVATION
scale 1:100



NORTH ELEVATION
scale 1:100



SOUTH ELEVATIONS
scale 1:100

ERF 22094 MZURI

INNOVATIVE DESIGNS
ARCHITECTURAL DESIGNERS AND BUILDING CONTRACTORS
Unit 12 Cnr of Reitz & Victoria Road Somerset West
Gey van Pittius Building / Cell : 078 3901 683
Office : 066 1630 043 / info@i-designs.co.za
SACAP-PSAT43752054 /NHBRC Reg -3000226340

GENERAL NOTES

1. COPYRIGHT RESERVED BY THE ARCHITECTS.
2. ALL INFORMATION ON THE PLAN MUST BE CHECKED AND ANY DISCREPANCIES MUST BE BROUGHT TO THE ARCHITECTS ATTENTION BEFORE ANY BUILDING WORK COMMENCES.
3. DRAWINGS MUST NOT BE SCALED.
4. ALL WORK AND QUALITY OF MATERIALS MUST COMPLY WITH SANS 10400 AND ALL OTHER APPROPRIATE AUTHORITIES.
5. QUALITY OF WORKMANSHIP MUST BE STRICTLY IN ACCORDANCE WITH TH SANS BUILDING STANDARDS AND RELEVANT CONSTRUCTION INSTITUTES
6. FOUNDATION EXCAVATION MUST BE TREATED WITH APPROVED POISON WITH A 10 YEAR GUARANTEE AND MUST BE APPLIED AS INDICATATED ACCORDING TO BUILDING STANDARDS
7. CONCRETE FOUNDATION, SURFACE BED AND PAVING MUST COMPLY WITH SANS 10400 AS WELL AS ENGINEERS PLANS AND SPECIFICATIONS.
8. WHERE ANY SURFACE DIFFERENCES IN STRIP FOUNDATIONS OCCUR THE HIGHEST SECTION MUST BE EXTENDED OVER THE LOWEST FOR A DISTANCE AS THICK AS THE FOUNDATION.
9. FOUNDATION EXCAVATION FOR OUTSIDE BRICK WALLS MUST NOT BE LESS THAN 400MM UNDER THE SURFACE OF THE ADJOINING FINISHED GROUND LEVEL.
10. 375 MICRON D.P.C. MUST BE PROVIDED IN ALL WALLS AS INDICATED.
11. CORRECT WIDTH BRICKFORCE MUST BE PROVIDED IN EACH FIFTH COURSE IN ALL BRICK WALLS, EXCEPT WHERE SHOWN OTHERWISE
12. ALL BRICK WORK IN STRETCHER BOND EXCEPT WHERE SHOWN OTHERWISE L BRICK WORK IN STRETCHER BOND EXCEPT WHERE SHOWN OTHERWISE.
13. ALL DRAIN PIPE EXCAVATIONS MUST BE TREATED WITH TERMITE POISON FOR 1500MM FROM ANY BUILDING
14. ALL GLAZING MUST BE ACCORDING THE SANS 10137 AND SANS 10400 PART N - ACCESS DOORS AND SIDE LIGHTS, WINDOWS LOWER THAN 500MM FROM FLOOR , WINDOWS LOWER THEN 1800MM ABOVE PITCH LINE OF STAIRS AND SHOP FRONTS TO BE SAFETY GLASS AND CLEARLY EDICATED AS SUCH AT EYE LEVEL
15. ALL DRAIN PIPE WORKS AND MATERIAL MUST BE ACCORDING TO NBR REQUIREMENTS
16. ELECTRICAL INSTALLATIONS MUST BE STRICTLY ACCORDING TO APPROPRIATE REGULATIONS.
17. ALL TIMBER ROOF TRUSSES MUST BE TREATED WITH TERMITE RESISTANT SUBSTANCE OR SIMILAR APPROVED.
18. WALL TIES SHALL BE INSTALLED IN ANY CAVITY WALL IN AN EVENLY DISTRIBUTED PATTERN AT A RATE OF NOT LESS THAN 5 TIES PER SQ METER OF FACE AREA WHERE THE CAVITY IS MORE THAN 75MM IN WIDTH.
19. ALL EXTERNAL WALLS TO BE 230 MM CAVITY WALLS WITH 50MM SPACING.
20. PROVIDE WALL TIES 3 /SQM AND BRICKFORCE EVERY 3 COURSES
21. PROVIDE WEEPHOLES EVERY 6 BRICK COURSES.
22. ALL PARAPET WALLS TO BE WATERPROOFED WITH BANDAGE FLASHING AND ACRYLIC SEALED.
23. LOWER LIP OF DPC TO BE 150MM FROM FGL AND CACITY BELOW FILLED WITH CONCRETE
24. ALL INTERNAL AND EXTERNAL WALL OPENINGS LESS THEN 3M TO RECIEVE A PRE CAST CONCRETE LINTOL
25. ALL INTERNAL WALLS TO RECIEVE A 600X200MM CONCRETE SLAB THICKENING

AREAS

SITE	**- 323 SQM**
DWELLING	
DWELLING	**-160 SQM**
GARAGE	**- 42 SQM**
TOTAL FOOTPRINT	**- 202 SQM**
GROSS BUILDNG AREA	**- 202 SQM**
COVERAGE	**- 62.53%**

XA CALCULATIONS

ZONE 4
SANS 2022 XA Requires 20%
NEW DWELLING
20 % of nett floor area :
(160m² + 100) x 20 = 35.20m²
WINDOW SQM =55.6
55.6/176X 100
=31.59%

Fenestration non-complies with SANS 2022 XA
Form 2 required

New windows and sliding Doors
W1 4.27m X 2.7m = 11.1
W2 3.8m X 2.37m = 10.26
W3 0.6m X 1.2m = 0.72
W4 1.2m X 1.5m X 3 = 5.4
SD1 2.4m X 2.1m = 5.04
SD 2 3.9m X 2.4m = 9.75
W5 3.05m X 2.3m = 7.0
W6 1.2 m x 1.8m =2.15

ROOF INSLUATIONS (R VALUES)

CEILING VOIDS	
SISOLATION	**- 1.30**
135MM ISOTHERM	**- 3.15**
TOTAL	**- 4.45**
CONCRETE ROOFS	
40MM ISOBOARD	**- 1.9**

HOT WATER DEMAND

MINIMUM OF 50% BY VOLUME OF ANNUAL AVERAGE HOT WATER HEATING REQUIREMENTS SUPPLIED BY ALTERNATIVE MEANS.

1. HOT WATER CALCULATION FOR THE GROUND FLOOR BEDROOM WING.

A H4 DWELLING OCCUPATION 2 PEOPLE PER BEDROOM X 3 BEDROOMS = 6 PEOPLE
B USAGE PER PERSON PER DAY = 115 LITRES
C HOUSEHOLD CONSUMPTION PER DAY AT 55 DEGREES C =115 L/PER PERSON X 6 = 690 LITRES
STORAGE VOLUME AT 60 DEGREES CELSIUS = 50 LITRES/ PER PERSON X 6 = 300 LITRES
D AMBIENT INPUT TEMPERATURE = 16 DEG. C
E TARGET OUTPUT TEMPERATURE (DELIVERY TEMPERATURE) = 55 DEG. C
F AVERAGE DIFFERENCE IN TEMPERATURE = 44 DEG. C
G SPECIFIC HEATING OF 1 LITRE OF WATER = 4 182 J/KGK
H DAILY ENERGY REQUIRED TO HEAT WATER = C X F X G
= 690 L/DAY X 44 X 4.182 = 126 965. 50
I KWH PER DAY = H DIVIDED BY 3600 = 63 482 .76 / 3600 = 35.00 KWH
J ENERGY REQUIREMENT TO HEAT WATER PA = 35.00 KWH X 365 DAYS = 12 775.00 KWH

50 % OF ENERGY REQUIRED TO HEAT WATER PER YEAR = 63 872.00 KWH

A STORAGE CAPACITY = 200 LITRES
B FLOW RATE = 12 - 14.5 L/MIN
C HEATING CAPACITY = 4.2 KW
D POWER CONSUMPTION = 1.3 KW

KWIK KOT GEYSER SAVES 70% OF ENERGY USAGE

HEAT PUMP ENERGY USAGE = LESS THAN 50% OF ENERGY REQUIRED = 3832.50 KWH

INSTALLATION COMPLIES.
HEATPUMP SPECIFICATION: 4.2 KW WITH 200 LITRE STORAGE CAPACITY.

PROJECT DETAILS

CLIENT: DE VOS
DISCRPTION: NEW DWELLING
LOCATION MZURI ESTATE MZURI AVE SOMERSET WEST

DRAWING DETAILS

TITLE FLOOR PLANS AND ROOF PLANS
PROJECT REF PROJECTS I 815

DRAWN:	D.BENJAMIN	CHECKED:	R DIRKSE
DATE:	JUNE 2025	SCALE:	1:100

PROJECT NO	DRAWING NUMBER	REV
1020	**CD 100**	**01**

ERF 22094 MZURI

INNOVATIVE DESIGNS
ARCHITECTURAL DESIGNERS AND BUILDING CONTRACTORS

Unit 12 Cnr of Reitz & Victoria Road Somerset West
Gey van Pittius Building / Cell : 078 3901 683
Office : 068 1630 043 / info@i-designs.co.za
SACAP-PSAT43752054 /NHBRC Reg -3000226340

LOCALITY MAP



GENERAL NOTES

1. COPYRIGHT RESERVED BY THE ARCHITECTS.
2. ALL INFORMATION ON THE PLAN MUST BE CHECKED AND ANY DISCREPANCIES MUST BE BROUGHT TO THE ARCHITECTS ATTENTION BEFORE ANY BUILDING WORK COMMENCES.
3. DRAWINGS MUST NOT BE SCALED.
4. ALL WORK AND QUALITY OF MATERIALS MUST COMPLY WITH SANS 10400 AND ALL OTHER APPROPRIATE AUTHORITIES.
5. QUALITY OF WORKMANSHIP MUST BE STRICTLY IN ACCORDANCE WITH TH SANS BUILDING STANDARDS AND RELEVANT CONSTRUCTION INSTITUTES
6. FOUNDATION EXCAVATION MUST BE TREATED WITH APPROVED POISON WITH A 10 YEAR GUARANTEE AND MUST BE APPLIED AS INDICATED ACCORDING TO BUILDING STANDARDS
7. CONCRETE FOUNDATION, SURFACE BED AND PAVING MUST COMPLY WITH SANS 10400 AS WELL AS ENGINEERS PLANS AND SPECIFICATIONS.
8. WHERE ANY SURFACE DIFFERENCES IN STRIP FOUNDATIONS OCCUR THE HIGHEST SECTION MUST BE EXTENDED OVER THE LOWEST FOR A DISTANCE AS THICK AS THE FOUNDATION.
9. FOUNDATION EXCAVATION FOR OUTSIDE BRICK WALLS MUST NOT BE LESS THAN 400MM UNDER THE SURFACE OF THE ADJOINING FINISHED GROUND LEVEL.
10. 375 MICRON D.P.C. MUST BE PROVIDED IN ALL WALLS AS INDICATED.
11. CORRECT WIDTH BRICKFORCE MUST BE PROVIDED IN EACH FIFTH COURSE IN ALL BRICK WALLS, EXCEPT WHERE SHOWN OTHERWISE
12. ALL BRICK WORK IN STRETCHER BOND EXCEPT WHERE SHOWN OTHERWISE L BRICK WORK IN STRETCHER BOND EXCEPT WHERE SHOWN OTHERWISE.
13. ALL DRAIN PIPE EXCAVATIONS MUST BE TREATED WITH TERMITE POISON FOR 1500MM FROM ANY BUILDING.
14. ALL GLAZING MUST BE ACCORDING THE SANS 10137 AND SANS 10400 PART N - ACCESS DOORS AND SIDE LIGHTS, WINDOWS LOWER THAN 500MM FROM FLOOR , WINDOWS LOWER THEN 1800MM ABOVE PITCH LINE OF STAIRS AND SHOP FRONTS TO BE SAFETY GLASS AND CLEARLY IDICATED AS SUCH AT EYE LEVEL
15. ALL DRAIN PIPE WORKS AND MATERIAL MUST BE ACCORDING TO NBR REQUIREMENTS
16. ELECTRICAL INSTALLATIONS MUST BE STRICTLY ACCORDING TO APPROPRIATE REGULATIONS.
17. ALL TIMBER ROOF TRUSSES MUST BE TREATED WITH TERMITE RESISTANT SUBSTANCE OR SIMILAR APPROVED.
18. WALL TIES SHALL BE INSTALLED IN ANY CAVITY WALL IN AN EVENLY DISTRIBUTED PATTERN AT A RATE OF NOT LESS THAN 5 TIES PER SQ METER OF FACE AREA WHERE THE CAVITY IS MORE THAN 75MM IN WIDTH.
19. ALL EXTERNAL WALLS TO BE 230 MM CAVITY WALLS WITH 50MM SPACING.
20. PROVIDE WALL TIES 3 /SQM AND BRICKFORCE EVERY 3 COURSES
21. PROVIDE WEEPHOLES EVERY 6 BRICK COURSES.
22. ALL PARAPET WALLS TO BE WATERPROOFED WITH BANDAGE FLASHING AND ACRYLIC SEALED.
23. LOWER LIP OF DPC TO BE 150MM FROM FGL AND CACITY BELOW FILLED WITH CONCRETE
24. ALL INTERNAL AND EXTERNAL WALL OPENINGS LESS THEN 3M TO RECIEVE A PRE CAST CONCRETE LINTOL
25. ALL INTERNAL WALLS TO RECIEVE A 600X200MM CONCRETE SLAB THICKENING

AREAS

SITE	**- 323 SQM**
DWELLING	
DWELLING	**-160 SQM**
GARAGE	**- 42 SQM**
TOTAL FOOTPRINT	**- 202 SQM**
GROSS BUILDNG AREA	**- 202 SQM**
COVERAGE	**- 62.53%**

HOT WATER DEMAND

MINIMUM OF 50% BY VOLUME OF ANNUAL AVERAGE HOT WATER HEATING REQUIREMENTS SUPPLIED BY ALTERNATIVE MEANS.

1. HOT WATER CALCULATION FOR THE GROUND FLOOR BEDROOM WING.

A	H4 DWELLING OCCUPATION 2 PEOPLE PER BEDROOM X 3 BEDROOMS	= 6 PEOPLE
B	USAGE PER PERSON PER DAY	= 115 LITRES
C	HOUSEHOLD CONSUMPTION PER DAY AT 55 DEGREES C =115 L/PER PERSON X 6	= 690 LITRES
	STORAGE VOLUME AT 60 DEGREES CELSIUS = 50 LITRES/ PER PERSON X 6	= 300 LITRES
D	AMBIENT INPUT TEMPERATURE	= 16 DEG. C
E	TARGET OUTPUT TEMPERATURE (DELIVERY TEMPERATURE)	= 55 DEG. C
F	AVERAGE DIFFERENCE IN TEMPERATURE	= 44 DEG. C
G	SPECIFIC HEATING OF 1 LITRE OF WATER	= 4.182 JKGK
H	DAILY ENERGY REQUIRED TO HEAT WATER	= C X F X G
	= 690 L/DAY X 44 X 4.182	= 126.965, 50
I	KWH PER DAY = H DIVIDED BY 3600	= 63 482 .76 / 3600 = 35.00 KWH
J	ENERGY REQUIREMENT TO HEAT WATER PA	= 35.00 KWH X 365 DAYS = 12 775.00 KWH

50 % OF ENERGY REQUIRED TO HEAT WATER PER YEAR = 63 872.00 KWH

A	STORAGE CAPACITY	= 200 LITRES
B	FLOW RATE	= 12 - 14.5 L/MIN
C	HEATING CAPACITY	= 4.2 KW
D	POWER CONSUMPTION	= 1.3 KW

KWIK KOT GEYSER SAVES 70% OF ENERGY USAGE

HEAT PUMP ENERGY USAGE = LESS THAN 50% OF ENERGY REQUIRED = 3832.50 KWH

INSTALLATION COMPLIES.
HEATPUMP SPECIFICATION: 4.2 KW WITH 200 LITRE STORAGE CAPACITY.

PROJECT DETAILS

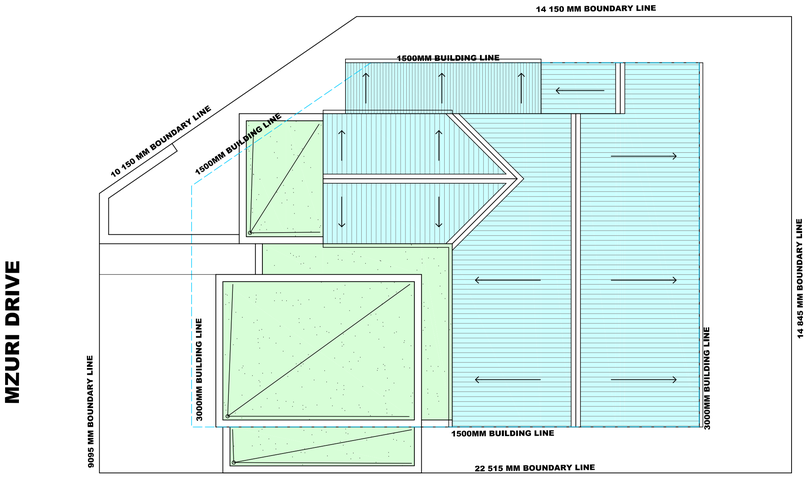
CLIENT: DE VOS
DISCRPTION: NEW DWELLING
LOCATION MZURI ESTATE MZURI AVE SOMERSET WEST

DRAWING DETAILS

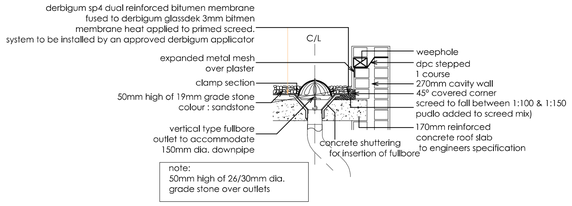
TITLE FLOOR PLANS AND ROOF PLANS
PROJECT REF PROJECTS I 815

DRAWN:	D.BENJAMIN	CHECKED:	R DIRKSE
DATE:	JUNE 2025	SCALE:	1:100

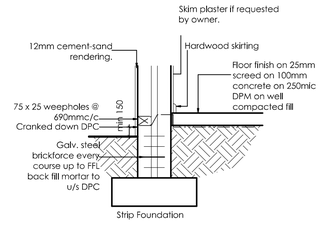
PROJECT NO	DRAWING NUMBER	REV
1020	**CD 100**	**01**



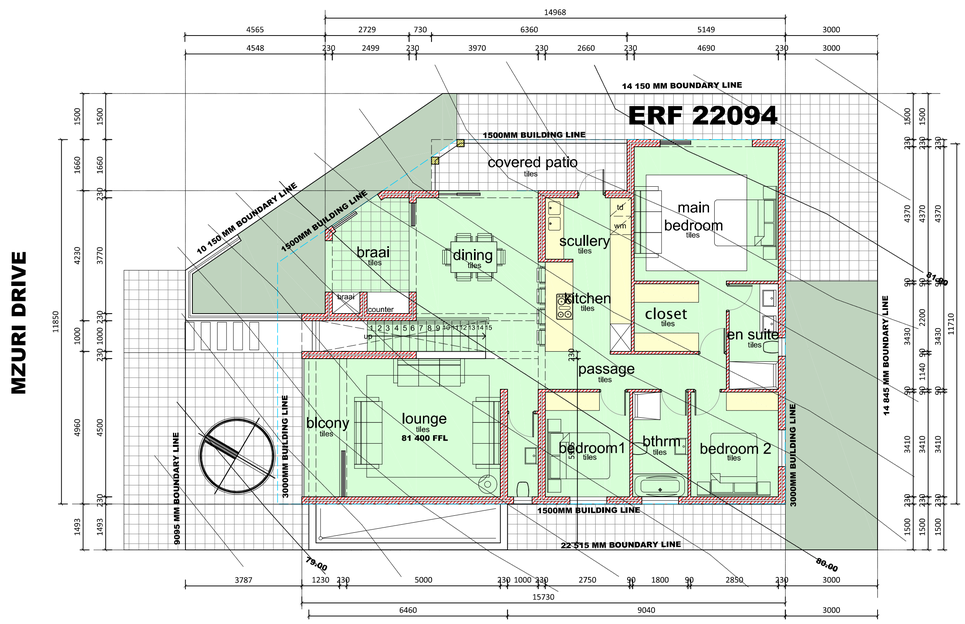
ROOF PLAN
scale 1:100



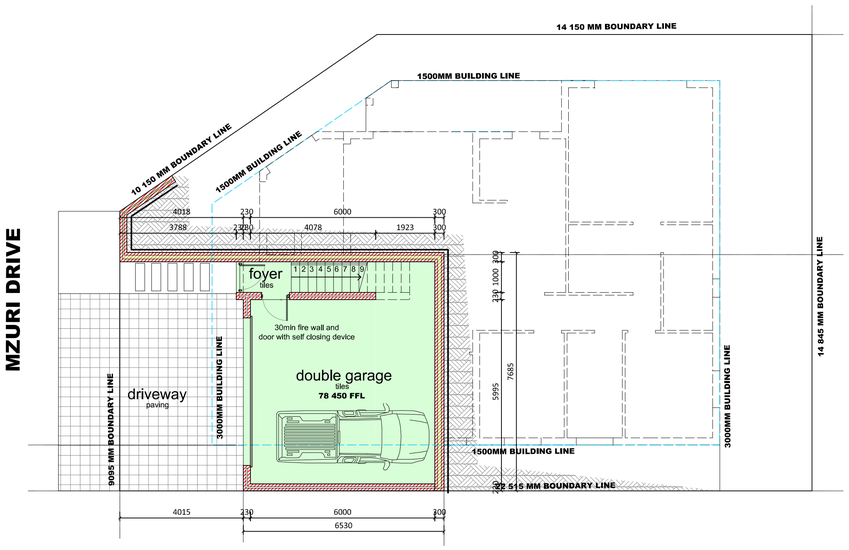
FULLBORE OUTLET DETAIL
scale 1:25



DPC DETAIL
scale 1:25



SITE/GROUND FLOOR PLAN
scale 1:100



LOWER FLOOR LAYOUT
scale 1:100