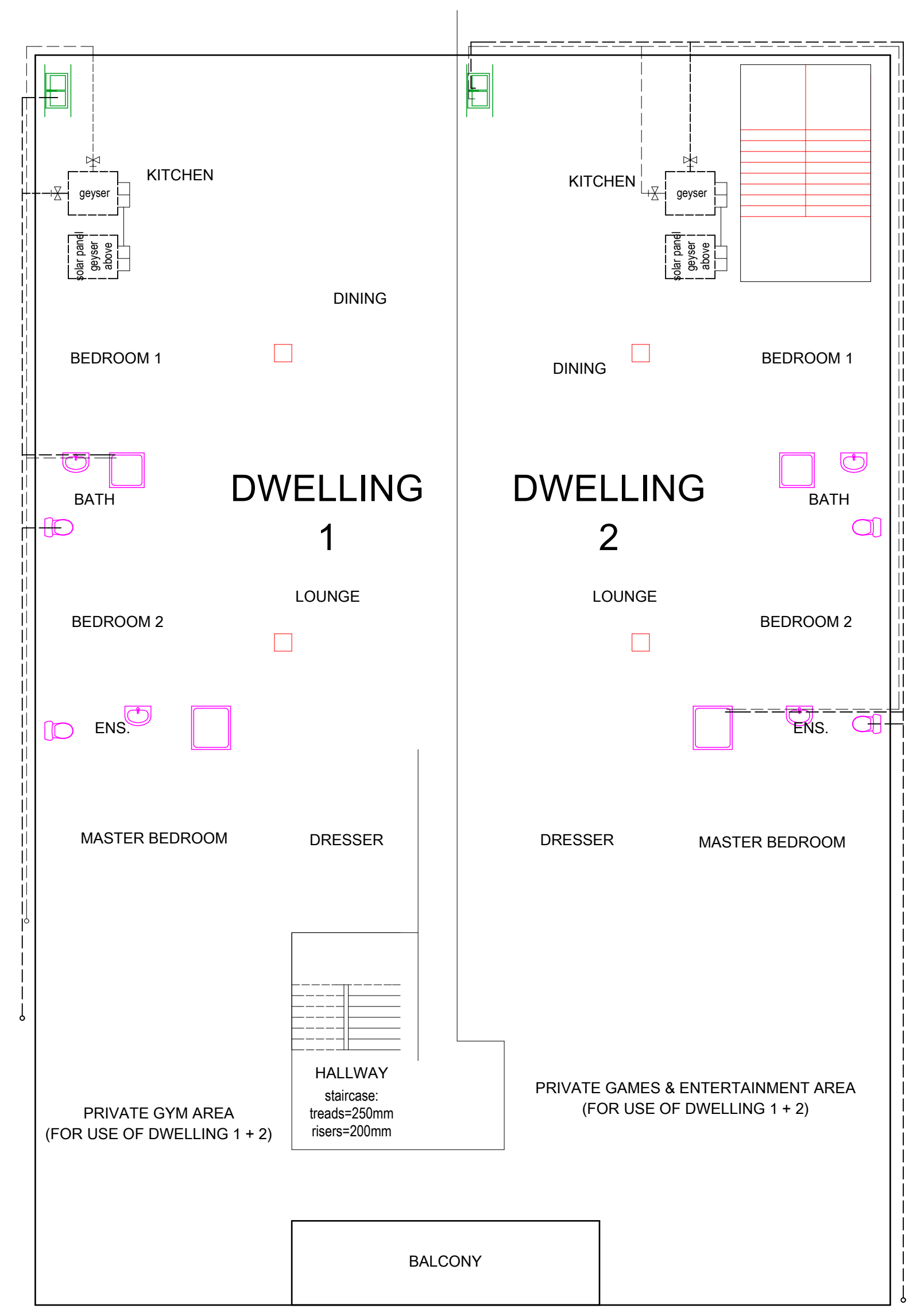


GROUND STOREY WATER RETICULATION LAYOUT
SCALE : (1:100)

25mm DIA HOPE UNDER GROUND WATER CONNECTION TO RESIDENCE



FIRST STOREY WATER RETICULATION LAYOUT
DWELLING 1 AND DWELLING 2
SCALE : (1:100)

FENESTRATION - GROUND STOREY GUEST BEDROOM,BATH,ENTRANCE HALL,STUDY AND PRIVATE LIBRARY

1. NETT FLOOR AREA= 138.96 sqm

2. GLAZING AREA: TOTAL= 18.06 sqm

NORTH EAST ELEVATION = 14.82 NORTH WEST ELEVATION = NIL
SOUTH EAST ELEVATION = 3.24 SOUTH WEST ELEVATION = NIL

3. 15% OF NETT FLOOR AREA:
(sqm/100) X 15= 20.84 sqm

CONCLUSION: TOTAL GLAZING AREA < 15% OF NET FLOOR AREA
18.06 sqm < 20.84 sqm

GLAZING IS LESS THAN 15% OF NETT FLOOR AREA OF PROPOSAL
THEREFORE CALCULATIONS ACCORDING TO SANS 204 NOT REQUIRED.

FENESTRATION - GROUND STOREY GUEST BEDROOM,BATH,ENTRANCE HALL,STUDY AND PRIVATE LIBRARY

LEGEND:

= 11W

ALLOWED SKwh PER sqm
= sqm X 5 Kwh
= 173.36 sqm X 5 Kwh
= 86.68 Kwh

ENERGY CONSUMPTION
= (5 hrs per day X 365) X (15 X 11 WATTS)
= 1825 kwh X 165 watts (x 1000)
= 301.125 kwh

FENESTRATION - FIRST STOREY PRIVATE ENTERTAINMENT,GYM AND GAMES ROOM

1. NETT FLOOR AREA= 121.22 sqm

2. GLAZING AREA: TOTAL= 17.70 sqm

NORTH EAST ELEVATION = 14.10 NORTH WEST ELEVATION = 1.8
SOUTH EAST ELEVATION = 1.8 SOUTH WEST ELEVATION = NIL

3. 15% OF NETT FLOOR AREA:
(sqm/100) X 15= 18.18 sqm

CONCLUSION: TOTAL GLAZING AREA < 15% OF NET FLOOR AREA
17.70 sqm < 18.18 sqm

GLAZING IS LESS THAN 15% OF NETT FLOOR AREA OF PROPOSAL
THEREFORE CALCULATIONS ACCORDING TO SANS 204 NOT REQUIRED.

FENESTRATION - FIRST STOREY PRIVATE ENTERTAINMENT,GYM AND GAMES ROOM

LEGEND:

= 11W

ALLOWED SKwh PER sqm
= sqm X 5 Kwh
= 137.00 sqm X 5 Kwh
= 685.00 Kwh

ENERGY CONSUMPTION
= (5 hrs per day X 365) X (13 X 11 WATTS)
= 1825 kwh X 143 watts (x 1000)
= 260.975 kwh

FENESTRATION - FIRST STOREY DWELLING 1

1. NETT FLOOR AREA= 179.67 sqm

2. GLAZING AREA: TOTAL= 18.69 sqm

NORTH EAST ELEVATION = NIL NORTH WEST ELEVATION = NIL
SOUTH EAST ELEVATION = 8.19 SOUTH WEST ELEVATION = 10.50

3. 15% OF NETT FLOOR AREA:
(sqm/100) X 15= 26.95 sqm

CONCLUSION: TOTAL GLAZING AREA < 15% OF NET FLOOR AREA
18.69 sqm < 26.95 sqm

GLAZING IS LESS THAN 15% OF NETT FLOOR AREA OF PROPOSAL
THEREFORE CALCULATIONS ACCORDING TO SANS 204 NOT REQUIRED.

FIRST STOREY DWELLING 1

LEGEND:

= 11W

ALLOWED SKwh PER sqm
= sqm X 5 Kwh
= 218.30 sqm X 5 Kwh
= 1091.50 Kwh

ENERGY CONSUMPTION
= (5 hrs per day X 365) X (20 X 11 WATTS)
= 1825 kwh X 220 watts (x 1000)
= 401.50 kwh

FENESTRATION - FIRST STOREY DWELLING 2

1. NETT FLOOR AREA= 165.84 sqm

2. GLAZING AREA: TOTAL= 17.34 sqm

NORTH EAST ELEVATION = NIL NORTH WEST ELEVATION = 6.84
SOUTH EAST ELEVATION = NIL SOUTH WEST ELEVATION = 10.50

3. 15% OF NETT FLOOR AREA:
(sqm/100) X 15= 24.87 sqm

CONCLUSION: TOTAL GLAZING AREA < 15% OF NET FLOOR AREA
17.34 sqm < 24.87 sqm

GLAZING IS LESS THAN 15% OF NETT FLOOR AREA OF PROPOSAL
THEREFORE CALCULATIONS ACCORDING TO SANS 204 NOT REQUIRED.

FIRST STOREY DWELLING 2

LEGEND:

= 11W

ALLOWED SKwh PER sqm
= sqm X 5 Kwh
= 195.20 sqm X 5 Kwh
= 976.00 Kwh

ENERGY CONSUMPTION
= (5 hrs per day X 365) X (17 X 11 WATTS)
= 1825 kwh X 187 watts (x 1000)
= 341.275 kwh

DWELLING 1

WATER SUPPLY

ALL HOT WATER PIPES NOT CHASED INTO WALLS
OR ENCASED IN FLOORS TO BE INSULATED TO
MIN R-VALUE OF 1

DOMESTIC RESIDENCE H4 2 BEDROOMS

HOT WATER DEMAND

2 PERSONS PER BEDROOM
4 X 2 =8

8 X 140L /PERSON= 1120L

THIS WILL BE THE DEMAND OVER A 24H PERIOD

A20 CLASIFICATION :H4
A21 OCCUPANCY :2 PERSONS PER BEDROOM
TYPE OF HOT WATER GENERATION :SOLAR WITH BACK UP ELEMENT
HOT WATER DEMAND :140L PER DAY
NUMBER OF BEDROOMS :1
TOTAL DEMAND :4 X 2 X140L = 1120L (50% XA2)
CAPACITY PROVIDED :300L

DWELLING 1

WATER SUPPLY

LEGEND

WATER METER
COLD WATER STOP COCK
HOT WATER STOP COCK
25mm COLD WATER GEYSER PIPE
25mm HOT WATER GEYSER PIPE
15mm COLD WATER SUPPLY PIPE
15mm HOT WATER SUPPLY PIPE

g
whb
SINK
wc
BATH TUB

DWELLING 2

WATER SUPPLY

ALL HOT WATER PIPES NOT CHASED INTO WALLS
OR ENCASED IN FLOORS TO BE INSULATED TO
MIN R-VALUE OF 1

DOMESTIC RESIDENCE H4 2 BEDROOMS

HOT WATER DEMAND

2 PERSONS PER BEDROOM
3 X 2 =6

6 X 140L /PERSON= 840L

THIS WILL BE THE DEMAND OVER A 24H PERIOD

A20 CLASIFICATION :H4
A21 OCCUPANCY :2 PERSONS PER BEDROOM
TYPE OF HOT WATER GENERATION :SOLAR WITH BACK UP ELEMENT
HOT WATER DEMAND :140L PER DAY
NUMBER OF BEDROOMS :1
TOTAL DEMAND :3 X 2 X140L = 840L (50% XA2)
CAPACITY PROVIDED :300L

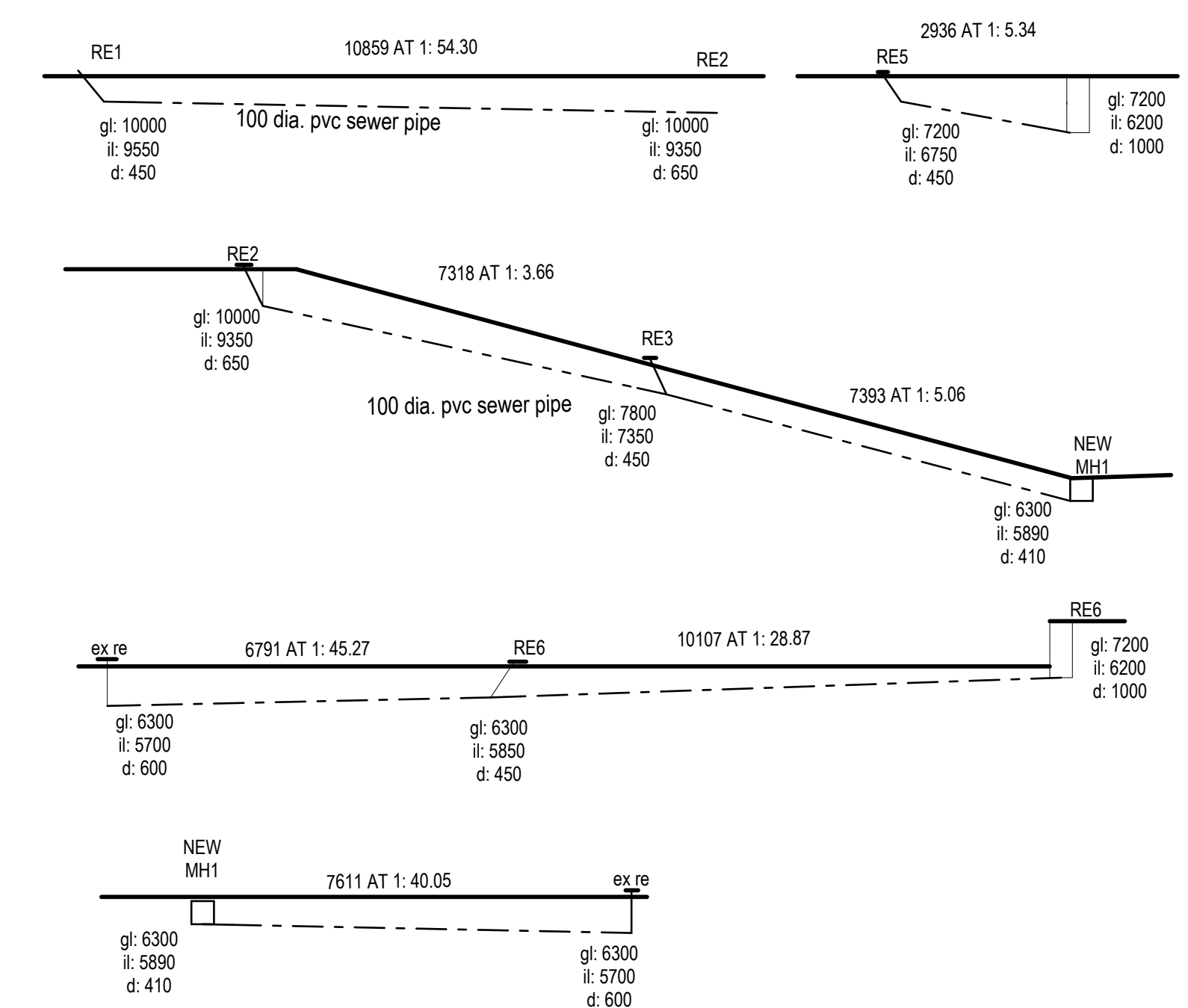
DWELLING 2

WATER SUPPLY

LEGEND

WATER METER
COLD WATER STOP COCK
HOT WATER STOP COCK
25mm COLD WATER GEYSER PIPE
25mm HOT WATER GEYSER PIPE
15mm COLD WATER SUPPLY PIPE
15mm HOT WATER SUPPLY PIPE

g
whb
SINK
wc
BATH TUB



STORMWATER CALCULATIONS

SITE AREA = 1419.00 Sqm

FORMULA
SITE AREA x 40 % = allowed sw into muni sw
= 1419.00 Sqm x 40 %
= 567.60 Sqm allowed sw into muni sw

TOTAL HARDEND AREA = 567.36 Sqm

STORMWATER IS LESS THAN 567.60 Sqm THEREFORE
CALCULATIONS ACHIEVED

PROPOSED BUILDING AREA

GROUND STOREY = 173.36 Sqm
FIRST STOREY = 567.36 Sqm

TOTAL AREA = 740.72 Sqm

COVERED PARKING AREA 394.00

**PROPOSED DWELLING 1, DWELLING 2 AND
COVERED PARKING AREA,
@ 15 CHATSWORTH MAIN ROAD,
UMHLATUZANA,
ON LOT 564 OF UMHLATUZANA,
FOR MR. R. AND MRS. S. GOVENDER.**

PROJECT



Drawn by Date

Checked by JOASH PERUMAL Date

Drawing Scale

1:100