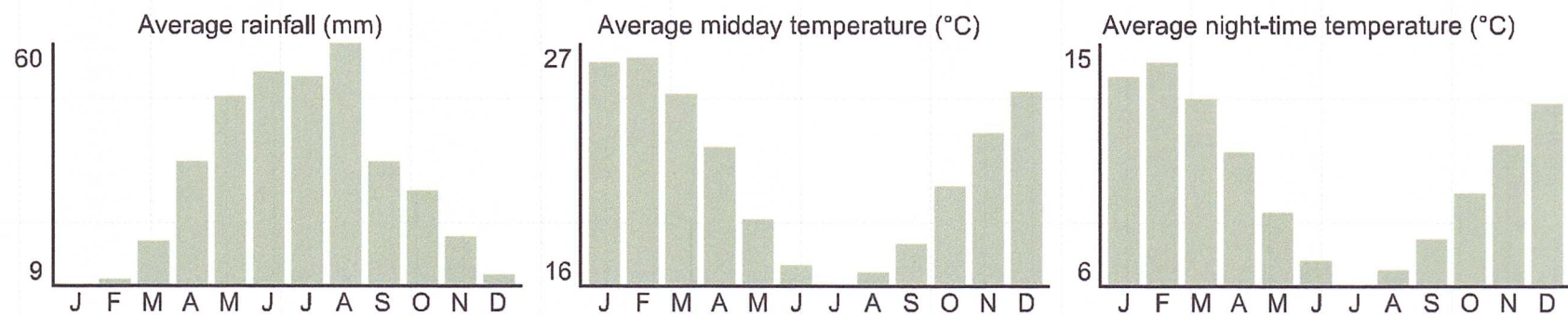
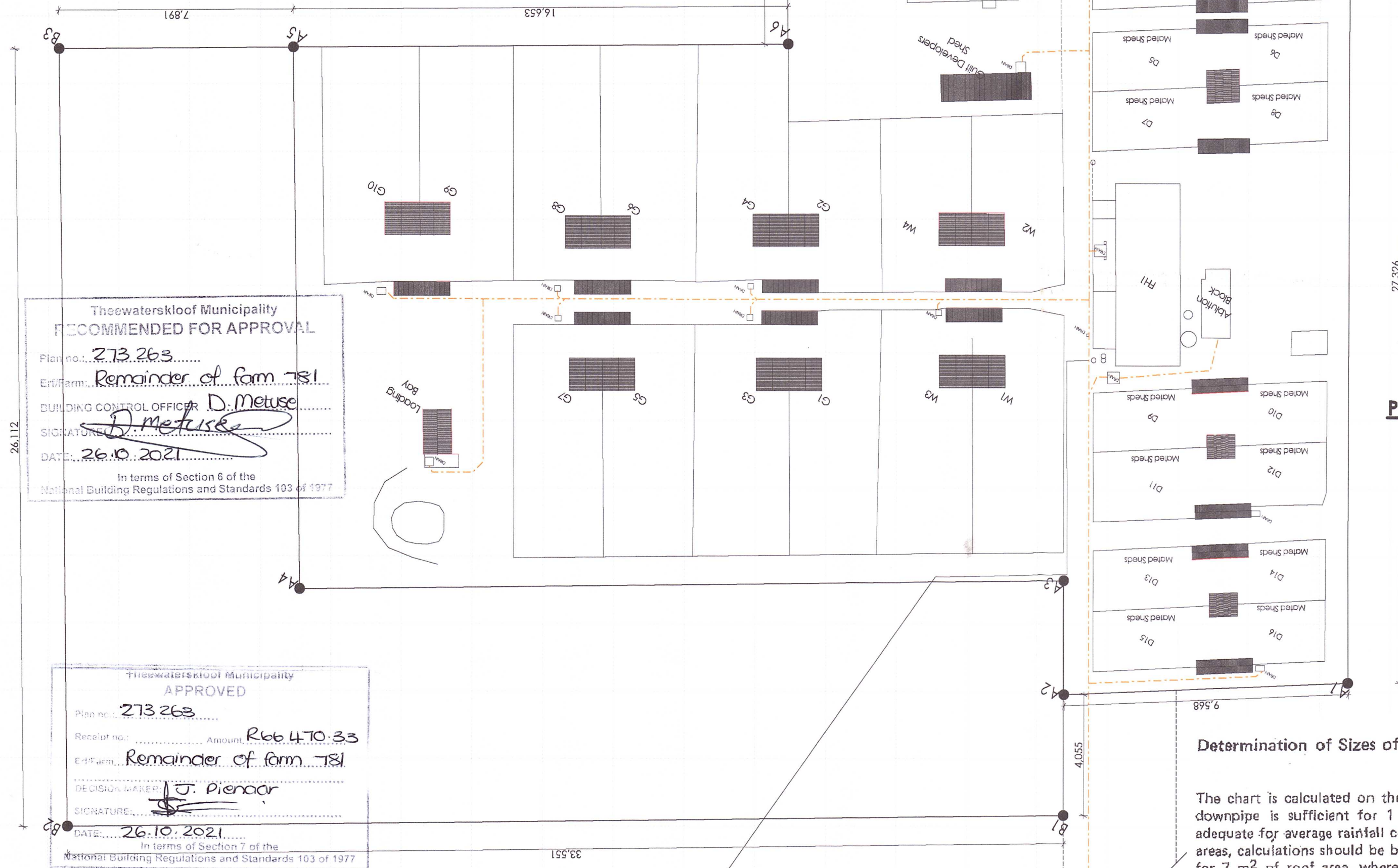




Botrivier normally receives about 382mm rain per year and because it receives most of its rainfall during winter it has a Mediterranean climate. The chart (lower left) shows the average rainfall values for Botrivier per month. It receives the lowest rainfall (9mm) in January and the Highest (60mm) in August. The monthly distribution of average daily maximum temperatures (centre chart below) shows that the average midday temperatures for Botrivier range from 16.1°C in July to 26.3°C in February. The region is the coldest during July when the mercury drops to 6°C on average during the night. Consult the chart given (lower right) for an indication of the monthly variation of average minimum daily temperatures.



Theewaterskloof Municipality
RECOMMENDED FOR APPROVAL
Plan no. 273.263
Erf no. Remainder of farm 781
BUILDING CONTROL OFFICER D. Metuse
SIGNATURE: D. Metuse
DATE: 26.10.2021
In terms of Section 6 of the National Building Regulations and Standards 103 of 1977

Theewaterskloof Municipality
APPROVED
Plan no. 273.263
Receipt no. R66470:33
Erf no. Remainder of farm 781
DECISION MAKER J. Pieterse
SIGNATURE: J. Pieterse
DATE: 26.10.2021
In terms of Section 7 of the National Building Regulations and Standards 103 of 1977

- A. CATCHMENT OF ROOF RAIN WATER STORAGE
1. FEEDING SHEDS X 24
Roof area 24 (5 000 x 24) = 2 880m² x 382 l/m² = 110 000 l
 2. SHELTER BUILDINGS
Roof area 24 (15 x 7 x 4) = 10 080m² x 382 l/m² = 385 000 l
 3. OFFICE BLOCK
Roof area 2 x 7 x 25 = 350m² x 382 l/m² = 133 700 l
Total roof water capacity/month = 628 700 l
Water storage tanks (5 000 l) = 125 off
Actual tanks installed
Feeding shed = 24 x 2 = 48
Shelter shed = 24 x 4 = 96
Office building = 1 x 2 = 2 = 146 off
Total storage capacity rainwater = 730 000 l
Exclude existing borehole supply of +/- 120 000 l/h
Deemed to satisfy
- B. GUTTER REQUIREMENTS (per building)
1. SHELTER SHED
Roof area (middle) = 210m²
Box gutter size = 300cm²
D.P. requirement = 1 x 125mm
Side roof area = 105m² x 2 = 210m²
Gutter sizes = 125cm²
D/P sizes = 4 x 100cm²

PIG SHELTER FLOOR WASHING EFFLUENT

- C. Under ground concrete tanks
1. (3 000 x 3 000 x 2 000 Deep) 8 000 l cap)
24 off x 17 999 l = 432 000 l capacity
All Bio Degradable Agricultural Waste Water for irrigation purpose on farm land
Total Waste Water capacity cycle discharged = 432 000 l
 2. This include effluent from spray race wash bay water discharged into effluent tanks

Determination of Sizes of Gutters and Downpipes

The chart is calculated on the assumption that 1 cm² of downpipe is sufficient for 1 m² of roof area, which is adequate for average rainfall conditions. For heavy rainfall areas, calculations should be based on 10 m² of downpipe for 7 m² of roof area, whereas in dry areas, where heavy showers are not likely to occur, 10 cm² of downpipe is sufficient for 14 m² of roof area.

Llewellyn van Rensburg
Llewellyn van Rensburg
Member of Cape Institute for Architecture Reg M-V015
Member of the Council for the Architectural Profession Reg ST1242