Design Manual

1. INTRODUCTION

This unique residential setting is located on the Indian Ocean with unobstructed south-facing sea views. To the east the site is bordered by the deep gorge of the Blinde River,while to its north and west are undulation planes of rich veld. It is this unspoiled natural beauty that is the sanctuary's most priceless asset, and it is the express intention of the present and future owners of this virgin piece of earth to prohibit any development that may have a negative or undermining effect on its visual and ecological qualities.

The form and nature of the building work that will take place at Moquini will directly determine to what extent the inherent characteristics of the terrain will be affected. It would therefore be desirable to restrict the scale, height, materials and finishes of all proposed structures and to encourage extensive use of natural materials to minimise visual impact and ecological damage. To this end a simple and concise set of principles, guidelines and controls has been formulated to guide and inform the future development of housing within the scheme.

The implementation and maintenance of these Buildings Design Guidelines and controls will ensure a development within which the following aims will be achieved:

- to ensure a co-ordinated and aesthetically pleasing residential development
- to enhance the investment value of the scheme as a whole, and the individual properties in particular
- to safeguard the natural ecological balance and minimize any damage to the virgin habitat
- to limit visual impact on the inherent natural beauty of the terrain
- to assist individual owners during the design and building process to achieve a coherent and pleasing aesthetic appearance
- to protect established properties from haphazard building development in their proximity.

Due to the variation in the nature of different parts of the terrain, building line constraints have been adjusted between the various individual sites.

As much of the indigenous vegetation should be maintained as possible. Planting of alien species around the dwelling will not be allowed and a planting programme of appropriate species will be implemented.

In addition to the guidelines and controls set out in this manual, all buildings must comply with both the local municipal and the South African National Building Regulations.

2. ENVIRONMENTAL DESIGN

The connections between the climate and building is one of the primary determinants of the nature of architecture. Selective design is the process in which the building envelope is configured and constructed in such a manner as to make positive use of the beneficial elements of the naturally occurring climate.

The development of the site and its architectural forms can therefore be responsibly guided by a sensitive ecologic awareness. For example, the path of the sun, or solar geometry, will influence the development of the built form, the use of fenestration and shading devices. Community water purification systems, the generation of solar and hydrogen power, planned gardening, maintenance

and other activities directed towards conservation within the housing precinct can be not only ecologically beneficial but also economically sound. More specifically, the following considerations would be generally present in an ecologically aware design approach:

The site

- The building should be orientated with reference to the sun, the existing land formation and vegetation to create privacy and protect architecture from climatic Extremes
- Care should be taken when working the site to ensure conservation of the existing topsoil
- Modification of the existing land formation should be kept to a minimum
- When planning supplementary planting, artificial irrigation should be kept to a minimum and consideration given to the prevention of soil erosion
- Climatic extremes can be moderated by using combination of deciduous and evergreen trees to the north, north-west and north-east for summer shading.

Architecture

- Orientation and location are critical to optimise the benefits of solar radiation, day lighting, controlled air movement, and thermal efficiency
- Careful and detailed site analysis is required to enable climate-responsive architectural forms, surface and openings to effectively respond to microclimatic sun, earth, air and water conditions
- Small, adaptable, ergonometrically planned homes conserve space and energy consumption
- It would be beneficial to the general ambience if exterior patios, courtyards, decks and balconies are designed for privacy and quietness
- maximising ratio between interior volumes to exterior surfaces conserves both energy and materials
- avoiding energy-intensive materials would assist in sustaining nature's ecosystematic balance
- simple roof-forms designed in response to local climatic conditions save material, energy and cost
- treating outdoor spaces as part of the architectural scheme, and conversely indoor spaces as a continuity of the outdoors, can afford a dynamic connection between the inhabitants and nature
- providing cross-ventilation of all interior rooms and spaces is a most effective form of natural cooling, thereby conserving energy
- Functional delight to otherwise conventional architecture
- Ergonomic interior planning and design invariably results in efficient labour and energy-saving environments

Solar Manipulation

- in the Mossel Bay climate, living spaces benefit by maximizing northern exposure
- maximum glass to the north, a moderate amount to the east, and a minimum of glass to the west and south affords the best solar advantage
- shading of openings should be neglected for spring, summer and particularly autumn sun conditions: fixed rather than movable forms of shading and solar attenuation should be considered
- A balance should be achieved between the amount of external glazing and interior elements that will retain heat absorbed by sun-exposure and reflection, e.g. mass concrete or masonry

- Use may be made of patent solar collection systems that effectively use air, water and other fluids to store heat for future space and water heating. It should be noted however that solar collectors for heating domestic hot water and a hot spa tub will save energy, but they may not be cost effective under prevailing utility rates
- Carefully designed roof overhangs on the sun-side of buildings can effectively control summer sun penetration, yet admit the gentler sun in winter
- Skylights are generally areas through which energy is lost, but correctly designed north-facing clerestory windows may be utilised to admit full winter sun, thereby
- conserving energy as well as providing welcome day lighting of deep interior spaces
- The inter-seasonal enjoyment of outdoor spaces can be extended with the use of architectural forms, shading from trees, deciduous arbours and pergolas

Ventilation

- Screened ventilation air-intakes are sometimes more effective than openable windows
- Windows best serve for daylighting, thermal gain, view, privacy control and interior space functions
- Carefully located interior doors can aid and control the cross-ventilation of rooms and all interior spaces
- Wide interior doors are not only better suited to the needs of the disabled, but improve interior air circulation, daylighting and view between interior spaces
- exterior screen doors that double up as insulated storm doors simultaneously provide access, summer ventilation and winter thermal protection
- cooling towers, roof monitors, exterior and interior architectural configurations and other wind interceptors can effectively be used to control the ventilation of interior spaces

Window Treatments

- windows in the north façade work best if not fully draped with solid curtaining: alternatively, adjustable blinds that provide privacy while still allowing for solar gains during winter are a preferable option
- insulation, moveable shutters and thermal covers can be used, but have a notable stacking space requirement exterior shutters and screening are more effective than interior solar controls.

Exterior and Interior Colours

- during cold seasons darker-coloured exterior walls benefit from low-angle wintersolar gains, but these should be protected from overheating during summer months from the more steeply-angled sun by means of roof overhangs
- the reflectivity of exterior earth and paving surfaces should be considered year-roundregarding the influence they may have on the temperature on interior spaces, especially where there is a predominance of exterior glazing
- white or very light-coloured ceilings and interior side-walls allow for the deeper reflective penetration of natural light
- doors between interior room spaces can act as reflectors: glossy white lacquered or enamelled doors in the path of incoming daylight can assist in lightening adjoining spaces

3. DESIGN GUIDELINES

3.1 Structural Form

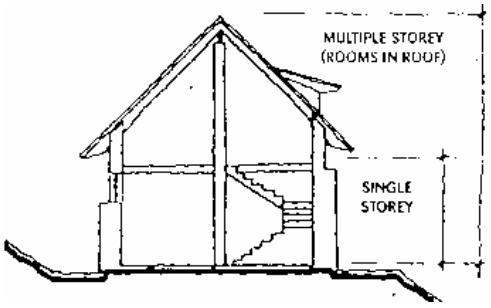
Building forms can be broadly grouped into two major categories relating to the dominance of their structural elements: on the one hand there are those where the walls and the treatment thereof give the building its character quality, as is found in most western classical architecture; on the other hand there are buildings whose form and dynamic are generated by the articulation of their roof forms, like Swiss chalets and far-eastern pavilions.
It is felt that the latter design approach would best serve the intention to minimise the impact of building on the natural beauty of Moquini

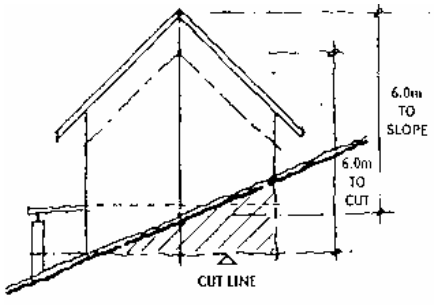
Individual owners are therefore encouraged to focus on roof-generated forms in the planning of their houses, a consideration that is embodied in many of the following guidelines.

3.2 Scale and Proportion

Building heights should respond to land forms to ensure a reasonable vertical scale and to preserve the views from adjacent properties. Buildings should primarily be of one storey in height, but if multi-storeys are contemplated the eaves line of the upper story should be set as close to door head height as possible.

Facades should ideally be articulated horizontally with a maximum length of 10.0 metres, and vertically with a maximum general wall height of 5,75 metres and a gable height of 6.0 metres measured from natural ground level and finished ground level (pay also attention to the height restrictions in clause 3.9 roof forms).

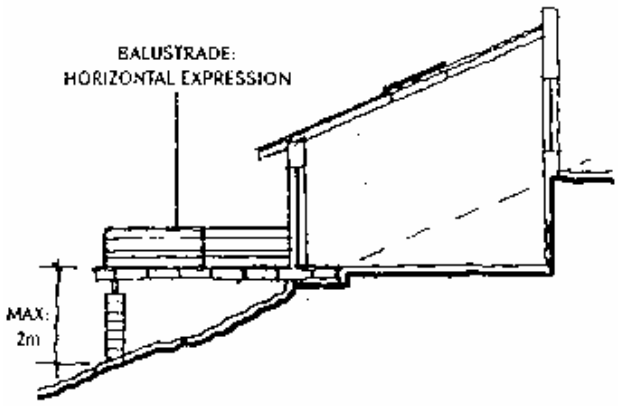




6.0m EXPOSED ABOVE FINISHED GROUND LEVEL.

3.3 Verandahs, Balconies, Decks and Balustrades

As upper floor balconies tend to be obstructive and increase visual impact, they will be permitted only subject to special approval. Piers or columns that carry projecting decks at lower levels should not be higher than 2.0 meters above natural or finished ground level.
Vertical expression in balustrades should be avoided.



3.4 Pergolas

Pergolas are subject to all constraints applicable to building regarding their scale, proportion, materials and finish.

3.5 Openings

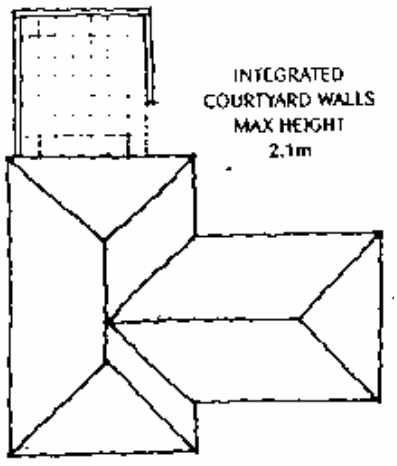
Secondary elements, including doors, windows and shading devices may be painted in colours other than earth colours, but this will be subjected to special approval.

3.6 Site security, Gateposts, Courtyard walls, Fences and Screens

The erection of gateposts and boundary walls will not be allowed. The yard walls and screens must be indicated on the plans for approval.

It is recommended that courtyard walls be designed as extensions to the main house and constructed of similar materials. They are to be restricted in overall height to 2.1 metres. Precast concrete walls or fences of any description will not be permitted.

Supplementary planted vegetation may be used as screening to afford privacy. Formal planting will not be permitted.



3.7 Outbuildings

These are to be compatible in form and character to the main building.
Only one dwelling unit will be permitted on each property, and only one kitchen will be permitted in each dwelling unit.

3.8 Materials and Finishes

Materials for the construction of walls are restricted to natural stone, clay brick in approved colours, plastered masonry and exposed concrete. Both of the latter two options must be painted or pigmented in earth colours that are found in the natural local environment or that are on the permitted colour palette (see clause 3.13). Exposed grey concrete unplastered blockwork and plastered masonry that is not of an approved earth-related colour, will not be permitted.

Acceptable roofing materials include natural thatch, slate tiles and painted galvanised metal or fibre-cement roof-sheeting. Clay or cement roof not within the specified colour range are not permitted. The roof Colour is always to blend in with the natural surrounds (see Colour Palette).

Site finishes may include stone, brick and slate paving.

3.9 Roof Forms

The maximum roof pitch should not exceed 45 degrees.

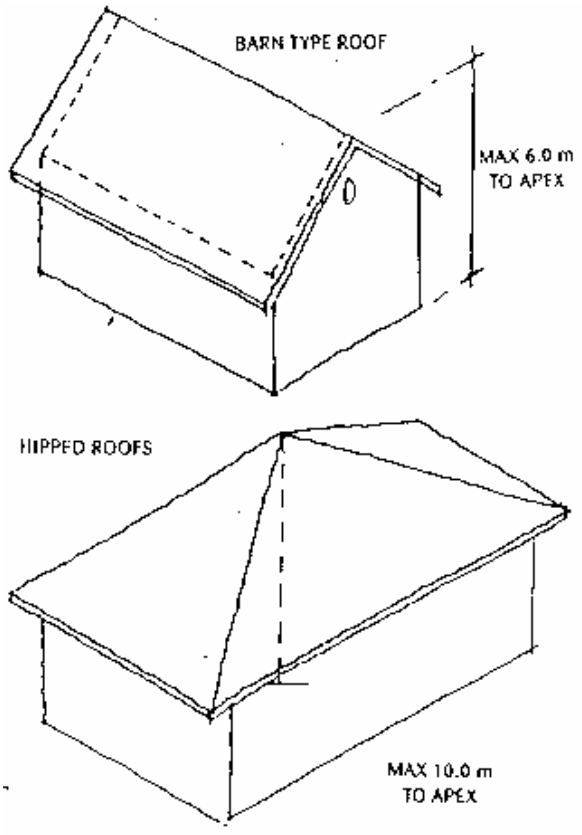
The maximum height from any roof apex to the natural ground level directly below it may never exceed 10.0 metres.

The maximum height from eaves or verge to the natural ground level immediately below it may never exceed 5,75 metres.

Concrete flat roofs are to be finished with a layer of stone or gravel above the waterproofing layer, or are alternatively to be covered with natural vegetation. All monopitched roofs are to follow the natural slope of the site and not contradict it.

Roofs should be designed with overhangs of a minimum of 500 mm to overshadow the walls.

No Gables with apexes higher than 6.0 metres above the natural ground level immediately below them will be permitted.

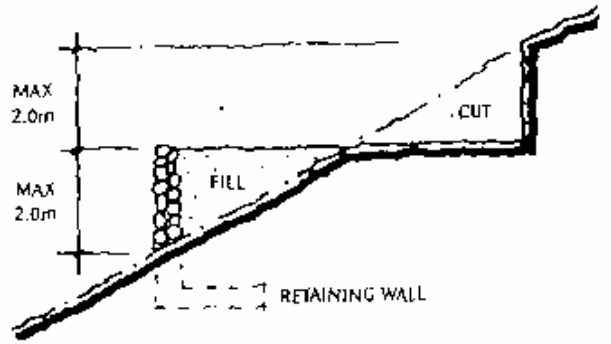


3.10 Land Forming

Retaining walls are not to be more than 2.0 metres above the natural ground level and are to be of the same materials as the main building walls.

Cut or fill is never to be more than 2.0 metres in height.

Natural stone gabions are a preferred method of land retention, but precast concrete pot retaining walls may be used judiciously, on condition that they are immediately planted and maintained with indigenous vegetation selected to mask their visibility entirely.



3.11 Exterior Lighting

Downward angled bollard lighting no higher than 1.0 metre above natural ground level is recommended.

No post-mounted lighting is permitted, nor floodlighting of buildings or trees. No security flood-lighting is allowed: general security is being provided for the entire development and its periphery.

3.12 Boundary Setbacks for the Structures and Planted Vegetation

No building whatsoever, including retaining walls and land formation, may be undertaken within the following distances from the site boundaries:

Site boundaries to all erven will be a minimum 5.0 metres and road boundaries minimum 7.0 metres.
Building platforms for erven 62 and 72 (old erven numbers 90 and 100) will be determined by the project architect and representatives of the relevant authorities to ensure that an appropriate relationship between the houses is maintained.

The front boundaries of all erven, excluding erven 62 to 72 (old erven numbers 90 to 100) and 20 to 28 (old erven numbers 51 to 59) will be a minimum 30.0 metres.

The front boundaries of erven 29 to 36 will be a minimum of 10.0 metres.

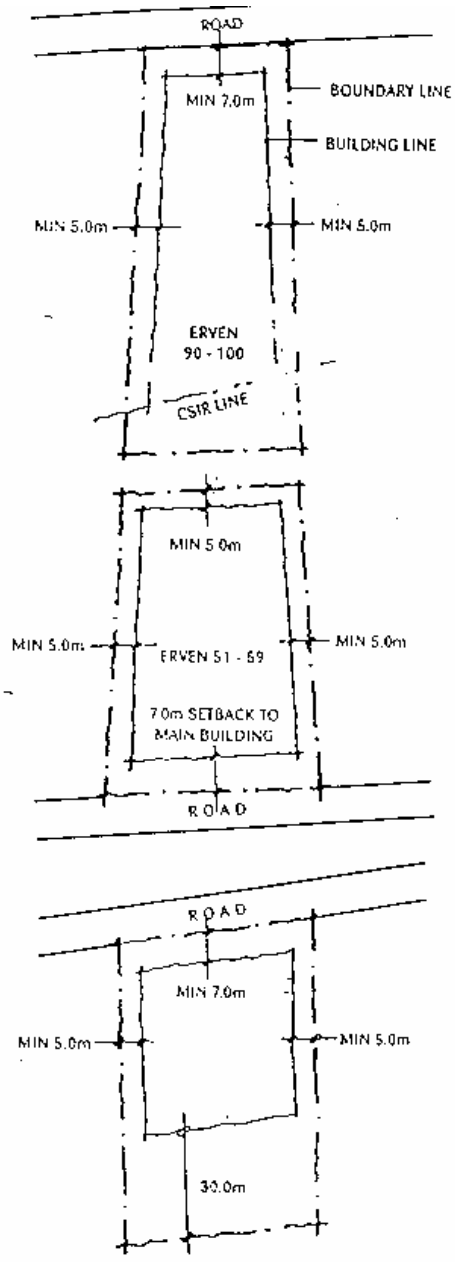
The height of the buildings for erven 29 to 36 (old erven numbers 43-50) from natural ground level to roof apex should not exceed 4,5metres above the road level

The minimum size of the footprint of the houses will be 200m^2.

Planting of tall trees and shrubs on the recommended list around the dwelling is encouraged (see Annex A + B with the indigenous species list of these guidelines), but this may not extend in front of any building by more than 10.0 metres.

The report of Cape Nature Conservation from 21st October 2007 stipulates:
according to the Environmental Management System (EMS): "all plant species except those listed in the recommended species list are considered undesirable for planting around the dwelling given the natural qualities of the site and will therefor not be permitted"

The area inside the entire dwelling (including the courtyards and the entertainment areas) is a non restricted area and therefore non indigenous plantings are permitted, as long as they are not listed and restricted as invasive according to the Conservation of Cultural Resources Act (CARA Act 43 of 1983) see Annex C to these guidelines.



3.13 Colour Palette

The restriction of colours for building materials and decoration is of paramount importance if the impact of development on the natural setting is to be minimized. The use of colour in all development at Moquini will therefore be strictly controlled, and the following palette is to serve as a guide for the selection of all materials and decorative schemes:

Primary elements including walls and roofs – earth colours indigenous to the terrain,

- slate grey
- dark brown
- charcoal

Secondary elements including windows, doors, shading, elements and balustrades – all of the above colours

- black and white
- shades other than earth colours
- subject to approval

Disallowed colours –

- bright primary and secondary colours
- including red, yellows, blues and greens,
- white in primary building elements

3.14 General

Plumbing pipes are to be fully concealed within the building structure.

Solar water heating panels are to be flush with the roof or unobtrusively sited.
All unsightly objects, e.g. dustbins, refuse containers; washing-lines, storage areas; pets accommodation and kennels may not be visible from roads, parkland or nature areas.

Stored boats, caravans, trailers and vehicles should not be visible from adjacent properties and nature areas.

The erection of signage including property identification is to be unobtrusive and subject to special permission.

In addition to these guidelines, the Moquini Aesthetic Control Board reserves the right to disallow any proposed architectural form or feature that in its sole opinion would detract from the overall ambience and quality of the precinct.

3.15 Procedure for Submission of Plans

The purchaser shall fully develop the property by the erection of a dwelling within a period of three years as from the date of transfer.

All persons submitting plans for building projects at Moquini must be registered and authorised in term of the SA council for the architectural profession in act 44 of 2000.

- Owner to submit 4 sets of plans, including 1 set of A4 sketch plans with elevations, together with R 4000-00 architects scrutiny fees to allow R 2000-00 for environmental matters, inspections, saving of plants etc., to Status Mark.
- Status Mark to forward the sketch plan together with the architect's comments, to Excom for approval.
- Excom must reply within 2 weeks. If the house complies with the guidelines and the architect's comments are favourable, Excom has no reason not to approve the plans.
- Excom to appoint 3 members to serve on a Plan Approval Subcommittee, to ensure that the deadlines can be met.
- Status Mark will put a "Moquini HOA approved" stamp on the plans.
- Before plans are handed back to the Owner, he will have to pay a refundable interest bearing Builders deposit of R 12000-00 to Status Mark.

All liaison on building design matters will be between the project architect and the property owner's architect. After approval, construction can begin.
The owner will receive strict construction guidelines ("Builders Code of Conduct" with advises)