SERENGETI ESTATES

FORGED BY NATURE

architecture, landscape and IT guidelines

revision 9

SEPTEMBER 2014

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INTRODUCTION | VISION | OVERVIEW

1. introduction | background

This guideline document is to be read in conjunction with the relevant General Information Plan, Geotechnical Plan and Detail Sheets provided.

Serengeti Golf and Wildlife Estate is a unique, upmarket golf and wildlife estate with excellent residential and tourism opportunities set in the beauty and serenity of Africa's open grasslands. As the name "Serengeti" suggests, the design of this development is located in response to the rich South African natural environment, offset against the sculpted natural beauty of a Jack Nicklaus Signature Golf Course.

The estate will include a Jack Nicklaus Designed, 27 hole 'Signature' golf course, with traditional golf and country club and associated sports facilities such as tennis and squash courts, an equestrian centre, a health and wellness centre, a 340 Ha conservation area with wildlife, a village square including restaurants, entertainment and retail convenience stores and a luxury resort hotel with conference facilities.

It is the developer's intention to create a WORLD CLASS leisure and golfing estate.

2. vision | intention

The vision for Serengeti Golf and Wildlife Estate is to for the architecture to demonstrate the delicate balance between the natural and built environment - the objective to create a seamless and appealing blend of architecture and environment, in so doing create a valuable, highly desirable and contextually appropriate living environment. The intention is to weave this vision through all urban design, architectural and landscape design considerations in order to provide a strong, palpable canvas of contextual awareness, which together with the development guidelines provide a framework within which to foster rich and diverse architectural expression.

It is imperative to bear in mind that these architectural guidelines are written not in the spirit of limitation, but rather freedom, to inform and guide with reference to carefully considered parameters in the interests of facilitating difference whilst preserving architectural identity and the broader integrity and value of the estate.

3. insight

purpose:

It is in the interests of the continued preservation of the value and integrity of this estate into the future, and with a view to the effective delivery and ongoing management of the estate that these design guidelines are written. These guidelines are carefully considered, and intend to guide design by presenting a framework within which individuals freedom of expression may be exercised without compromising the collective architectural language. It is the intention that these guidelines provide a framework which aims to: provide ongoing protection of the investment value of the estate into the future; protect the rights of each property owner; provide controls which will maintain the standard of the implementation and maintenance of the design vision throughout the life of the estate.

IT IS THE ARCHITECTURAL PROFESSIONALS RESPONSIBILITY TO READ AND THOROUGHLY UNDERSTAND THESE GUIDELINES **PRIOR** TO ENGAGING WITH THEIR CLIENTS. HAVING AN APPRECIATION FOR, AND THEN WORKING WITHIN THE INTENDED VISION AND ITS GUIDELINES WILL NOT ONLY CONTINUE TO REINFORCE VISION AND ONGOING QUALITY AND INVESTMENT VALUE OF THE ESTATE, BUT PROVIDE AN APPEALING AND HARMONIOUS OVERALL IMPRESSION AND IDENTITY OF THE ESTATE AND FACILITATE A SMOOTH DELIVERY PROCESS.

process:

The architectural guidelines exist primarily for the benefit of the homeowners. These guidelines represent and intend to manage the vision on behalf of the Developer and constituted Serengeti Property Owners Association, who have appointed a "Serengeti Design Review Committee" (hereafter referred to as SDRC) to oversee its successful interpretation and application. This guideline document is inherently a working document and the Directors of the Serengeti Golf and Wildlife Estate Property Owners Association (SPOA) reserve the right to amend this document at any time, provided the amendment is deemed to be in the best interests and add value to the estate and shall have absolute discretion in approving or refusing to approve any plans and specifications submitted for approval. It is not the intention, however, that any fundamental design principles be altered, and no amendments to these guidelines may be made retrospectively. Notwithstanding that any plans or improvements may comply with any such restrictions imposed by third parties, the approval of any plans or improvements with the Estate shall be at the sole discretion of the HOA. Similarly, compliance with restrictions imposed by the HOA shall under no circumstances absolve the owner from the need to comply with restrictions imposed by third parties, nor shall the HOA approval be construed as permitting any contravention of restrictions imposed by any authority having legal jurisdiction.

application:

The Architectural Guidelines document is only a part of the more comprehensive estate controls and rules, and must be read in conjunction with other documents as listed below.

These guidelines are not a replacement of any statutory requirements. Serengeti submissions and approvals are considered in addition to and should be read in conjunction with the National Building Regulations, applicable Town Planning Scheme, Occupational Health and Safety Act or any other applicable building requirements. All submissions to comply with the provisions described in SANS 10400 Part A – Part XA and where applicable SANS 204. These are statutory requirements and as such compliance in this regard will be enforced by the local authority that has jurisdiction and neither Serengeti nor any of its duly authorised agents takes any responsibility for any statutory non-compliance whatsoever. Serengeti Property Owners Association represented by the Serengeti Design Review Committee (SRDC) is constituted to primarily oversee aesthetic compliance in terms of the estate's architectural vision.

Plans for any buildings, whether new or alterations and additions must be submitted to the Serengeti Design Review Committee, as well as the Local Authority for approval. All review and inspection procedures imposed are done so in the interests of the homeowners in order to enforce compliance and preserve the developer's vision and the ongoing investment value and integrity of the estate.

Other Documents:

- Recommended EMP (Environmental Management Plan) and Landscaping construction and operations codes
- Approved Conditions of Establishment
- Contractors Code of Conduct
- Sales Agreement
- The Property Owners Association Constitution
- The Serengeti Golf and Wildlife Estate Rules

Construction commencement: Phase 1 – January 2012; Phase 2 – March 2012; Phase 3 – August 2012; Phase 4 – November 2012. **Construction timeframe**: 15 months for homes under 1000m^2; 18 months fr homes over 1000m^2. **Penalties for failure to complete**: 1st month R5 000; 2nd month R7 500; 3rd month and every month thereafter R10 000.

4. context

general:

Serengeti Golf and Wildlife Estate is set on approximately 840 hectares of prime real estate in the heart of the economic hub of South Africa located just east of the R21 and R23 junction, in what the local authority refers to as the R21 development corridor. This, the first Jack Nicklaus Signature Golf Course in Gauteng, is situated just 5 minutes drive from the International gateway to South Africa, O.R.Tambo International Airport, and is also within a short 30 minute drive from the economic hubs of Johannesburg and Pretoria. The estate is characterised by typical highveld open grasslands, but also includes some vegetation and a healthy wetland, fed by two permanent streams which provide sanctuary to many bird species.

climate:

This area is generally characterised by a very favourable climate. The predominant rainfall occurs in the form of Highveld thunderstorms which typically occur in the summer months between October and March. These are most times heavy downpours of rain which are short lived and disappear almost as quickly as they arrive. In these months the average rainfall per month is approximately 94mm, and the average rainfall per annum approximately 725mm. In winter the temperatures can get quite cooler than in the summer, and frost can often be found on the ground on winter mornings.

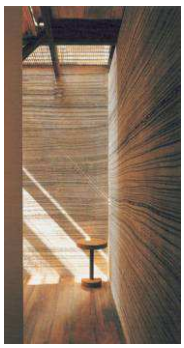
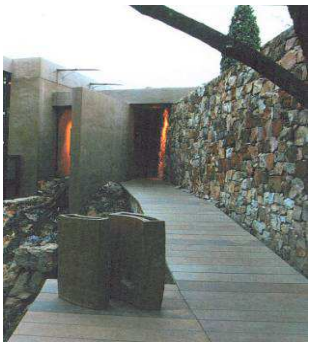
In the summer months (October to March) the average temperatures range from 12–26ºC, and in the winter months (April to September) the average temperatures range from 4–23ºC. Johannesburg gets an annual average of 8 - 10 hours of sunshine a day. Wind is predominantly north westerly, but there is also an occasional south easter.

5. design approach overview

At Serengeti the natural environment is primary, and it is the intention that the urban design, architectural and landscape language seek reference from the natural environment. The objective is to create a built environment which meets the natural environment seamlessly, in its colour, in its texture, in its materiality, in the way in which boundaries between indoor and outdoor rooms are broken down, in the way openings capture or articulate the natural light, or the way they frame a distant view, a view of tree, a fairway, a green. It is not intended that the architecture make bold statements, but rather weave a simple, subtle and sensitive thread through the natural environment. It is through this congruence between architecture and context that places resonate a rich sense of place.

The intention that this design framework and palette guide and promote diverse but appropriate architectural expression, allowing climate, context and spatial relationships to drive more deep-rooted, timeless architecture, rather than prescribing to particular popular, imported, stylistic references which date as fashion dates and bear little reference to local context and circumstances. The purpose of the guidelines is to reinforce and guide the vision, to foster freedom and creativity within the parameters of the collective architectural language.



It is vital to the success of the architecture in this estate that the fundamentals of good design are carefully considered when putting pen to paper. Principles of form, scale, mass, proportion, balance, contrast, texture and materiality must be carefully applied in order to create an environment which is pleasing to the eye and makes a significant contribution to the overall value of the estate. It is also hoped that these guidelines provide the opportunity for local architectural professionals to continue to contribute to the evolution of an appropriate, modern South African and Johannesburg vernacular architecture.

The developer and estate architects will, through an invitation and submission process, hand pick a number of registered architectural firms who most convincingly demonstrate interesting, refreshing and exciting interpretations of the estate vision, providing the foundation for rich diversity and architectural integrity woven together by the material, spatial and form guidelines as laid out in this document.

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DEVELOPMENT FRAMEWORK

1. ARCHITECTURAL DESIGN GUIDELINES

1.1 site - contextual parameters

topography

The site has a gradual fall towards the north-east. There are steeper falls on the site, particularly in the southeast towards the river course and dam, and also along the northwest boundaries. Vital site information of all erven showing contours, boundary extents and other site restrictions are available on CD at the Estate Management Complex (EMC) to all accredited architectural professionals. A land surveyor has been commissioned by the developer to survey contour levels (natural ground level) on all erven for the purchasers at a very competitive price. The developer will then provide the accredited architectural professionals with the land surveyor's information at cost price, and the architectural professionals will recover the cost thereof from purchasers as part of their fee structure.

orientation

Each erf in this estate will present its own unique site opportunities particular to its specific location within the estate. It is advantageous, however, that the most ideal orientation for a home in the Southern hemisphere, fractionally East of North, is aligned not only with the fall of the site, but also with the location of the bulk of the conservation area relative to the site. Views can obviously not be guaranteed, but what this means is that where sites lend themselves to these north, north-easterly views, homes that are orientated towards these views will also benefit from optimum sun orientation. Devices such as deep eaves projections, deep window and door reveals and pergolas with timber slats or deciduous climbing vegetation are recommended to moderate and screen sunlight into homes.

views

As mentioned in topography above, the site is not particularly steep, but does primarily fall away towards the northeast. This topography naturally lends itself to some distant views in a North and North-Easterly direction depending on the particular site in question. Breath taking views over natural features, the conservation areas and over the Jack Nicklaus golf course will be available from many stands as per the provisional site master plan.

1.2 site - general and statutory parameters

spatial approach

The intention, spatially, is to create an interesting, varied and layered streetscape and golf course elevation. The specific spatial mechanisms utilised to achieve this end in this development are described and illustrated in more detail below.

residential zoning

Erven 1-1175 are zoned Residential 1
Erven 1176-1181 are zoned Residential 2

These stand numbers relate to the approved Township layout for Witfontein Ext 24. Erf numbers will be amended to correspond with the phased township and the corresponding General Plan erf numbers.

Coverage and FAR [floor area ratio]

Coverage on all erven will be restricted to a maximum of 50% of the erven area for 1 storey, and 40% of the erven area for 2 storey buildings, inclusive of all covered areas i.e. garaging, covered entrances, terraces and balconies etc.

The area of the first floor is limited to a maximum of 60% of the ground floor area.
The intent of this condition is to ensure the mass of the first floor is 60% of the mass of the ground floor. As such areas must be calculated to include covered patios, covered balconies, covered entrances, stairs, stair volume as well as double volumes. These areas are not based on the Local Authority interpretation of coverage or FAR and should be completed as a separate calculation.

No more than 2 erven may be consolidated – in these instances building is restricted to accommodate one family dwelling only. All consolidation applications must be submitted for consideration, and will be evaluated and approved at the sole discretion of the SPOA.

A minimum dwelling floor area of 300m² is permitted for all residential 1 zoned erven on this estate.

Basements may not extend beyond the footprint of the ground floor, may not project more than 400mm above the FGL (finished ground level) and are limited to 30% of the ground floor area.

F.A.R for all Residential 1 erven will be 0.7
F.A.R for all Residential 2 erven will be as per approved SDP

NOTE: The appointed Architectural Professional is responsible for ensuring that all proposed development is within the permissible town planning rights and ensure that all calculations provided on the plan are correct. The SPOA accepts these areas | calculations in good faith and cannot be held responsible for any legal implications that may arise due to incorrect calculations.

second dwellings

No second dwellings other than a granny-flat may be erected on any erven measuring 1000m² or more without the consent of the SPOA.

Definition: A granny flat is a dwelling unit with a floor area limited to a maximum of 150m², which may or may not be connected to the primary residence but must conform to and be an integral part of the design of the primary residence.

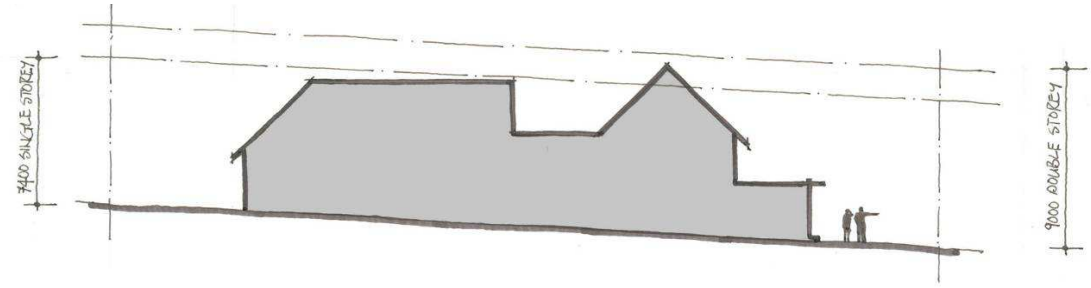
heights

All buildings are limited to a maximum of two storeys. The vertical dimension of a storey is limited to a maximum of 3200mm. For obvious reasons, views cannot be guaranteed, but in the interests of aiming to provide view corridors where possible, and moderate and articulate the scale and massing of the buildings, no first floor area may exceed more than 60% of the ground floor area.

No ground floor top of concrete level may be more than 500mm above the closest natural ground level at the building envelope for 2 story buildings. Single story buildings may not be more than 1000mm above the NGL provided within 7400mm height restriction.

Every part of every building must fall below a height of 9000mm measured vertically anywhere from the NGL as surveyed by the developer for double storey building components, and 7400mm for all single storey components. Double storey homes with a double pitch roof of 45º are the only exception to this rule and should fall within the same restriction but measured at 9600mm. Chimneys are the only elements which may exceed this height restriction within reason and to the sole discretion of the SDRC. Adherence to building height restrictions will be closely scrutinised by the SDRC. Refer to Fig. 1.

Figure 1 – Maximum heights



building lines | setbacks

- street boundary

The intention behind the street building lines and setbacks is to create a visually interesting and articulated streetscape. The objective is that the main building itself, the garaging and the screening treatment together create depth and interest in the streetscape and avoid the hard boundary wall 'tunnel' environment often seen down streets in some parts of suburbia.

Street building line setback minimum 5m. Garages are subject to a 6m building line to facilitate off street visitor parking. In the instance that garage entry does not face the street, a 5m building line applies.

Boundary walls on the street boundary are not permitted; instead screen walls should be set back a minimum of 3m from the street boundary.

It is intended that these screen walls do not follow the minimum screen wall building line (3m), but assist in articulating the street frontage by stepping back and forth from property to property to suit the particular house design.

These screen walls should not exceed more than 30% of the street frontage of any individual erven. If the erf has more than one street boundary, 30% will apply to one street boundary and 50% will apply to the second street boundary. These screen walls may not exceed 2.1m in height under any circumstances. Refer to section 1.4 for detail relating to boundary, screen and retaining wall treatment. Refer to Fig. 2.

- Stands with boundaries adjacent to SERENGETI BOULEVARD

Stands 121-125 in Phase 1, stands 272-293 and 306-310 in Phase 2 and stands 483-488 in Phase 3 refer.

The building line setback on these properties with boundaries adjacent to Serengeti Boulevard will be 3m.

Landscaping is always the preferred screening method of treatment but in order to secure children and pets, boundary treatment on the boulevard boundary may in this instance be positioned on the stand boundary provided this boundary treatment conforms to the appropriate requirements and guidelines in Section ***1.4 secondary architectural elements***, the paragraph entitled "*boundary, screen + retaining wall treatment*"

- golf course and open space boundary

A 5m building line along all golf course and open space boundaries will apply. Boundary treatment on these boundaries will not be permitted under any circumstances, and a similar principle to the screen wall approach to the street boundaries will apply.

In circumstances where a stand has more than 1 frontage facing either a golf course or open space boundary or one facing each, the 5m screen wall setback will apply to the PRIMARY

frontage. The golf course boundary will always be deemed the primary frontage without exception.

Where 2 boundaries front onto the golf course, the more prominent frontage will be deemed the primary frontage.

Where 2 boundaries front onto public open space, the frontage with the most prominent dam, park or conservation area and view relationship will be considered the primary frontage.

Screen walls on the primary golf or POS frontage may not exceed 50% of that frontage and must be behind the 5m screen wall setback. Erven whose relevant frontage exceeds 35m are the only exception. In these instances, screening may constitute 60% of the said frontage length.

Screen walling on the secondary frontage will be permitted on the stand boundary. This hard screening may not exceed 50% of that frontage length or 60% for erven where the boundary exceeds 35m in length and is required to be finished on all sides in the same manner as the residence and other stand boundary walls to SDRC approval.

All hard screen walling to be maximum 2.1m in height in all circumstances.

A 2m building line applies to all swimming pools on all boundaries except street boundaries where the pool must be behind the 3m building line. On all golf and open space boundaries, should the pool be on the 2m pool building line, the fence enclosure is required to be 90-95% visually permeable and comply with the Serengeti design guidelines outlined in section **1.4** under the heading "*boundary, screen + retaining wall treatment*". Should the homeowner choose a solid pool screen wall at a height from 1.2m to 2.1m then that swimming pool and solid screen wall must be behind the 5m screen wall setback and max 50% of frontage rule applies to the screen wall. Should the owner choose to have a solid | impermeable pool screen wall at max 1.2m, that pool and hard pool screen wall must both be behind the 2m pool setback line and the screen wall may only be a maximum of 40% of the stand frontage.

Each Serengeti homeowner or resident is responsible for the necessary safety precautions to be taken around swimming pools and water features on their property. Homeowners and their architects take full responsibility and liability with regard to ensuring pool enclosures comply with all relevant National Building Regulations and local authority requirements.

Over and above any statutory requirements, should owners desire additional swimming pool privacy screening on these boundaries, we encourage landscaping as most appropriate and preferable solution in combination with a semi-permeable NBR & Serengeti compliant fence.

In order to create a Serengeti identity and maintain a certain level of quality and uniformity on public boundaries such as this, it is recommended that the Serengeti boundary treatment design guideline be followed in principle. Refer to section ***1.4*** *under the heading* "*boundary, screen + retaining wall treatment*" for all detail on the specific screening treatment required in this condition.

- side boundary

Side boundary building lines are restricted to 2.5m min. for double storey, and 2m min. for single storey. Hard side boundary treatment may not extend closer than 6m from the street boundary, and 5m from any golf course or open space boundary. Refer to Fig. 2.

Further building line restrictions are applied by means of a **'height in relation to boundary'** rule that stipulates further setback from the side boundaries. In this case, 3.0 meter 45º principal applies as illustrated below in Fig. 3, and is measured from the nearest NGL level.

- property boundaries adjacent the open space corridor at the estate perimeter

Phase 2: Stands 332-349, 362-367, 377-384 as well as stands 311-331 in Phase 2 where stands face open space corridor and then themed village refer.

There is a public open space “corridor” 10m wide inside the entire estate perimeter for the purposes of facilitating security and maintenance access to the perimeter and also providing homeowners with the opportunity of walking or mountain biking the estate perimeter.

The building line setback on the erf boundary parallel to the estate boundary is 3m. Not more than 60% of the house frontage may be on this 3m building line.

The 5m screen wall setback does not apply in this estate boundary condition and boundary treatment may be placed on the site boundary. These boundary solutions are to be max. 1.8m high and must be a visually permeable as detailed in section ***1.4 secondary architectural elements***, the paragraph entitled “*boundary, screen + retaining wall treatment*”.

- other boundaries
  Boundaries which are not side boundaries, not street boundaries or golf course and open space boundaries may have hard boundary treatment along their entire length

Figure 2 – Building lines and setbacks – principle

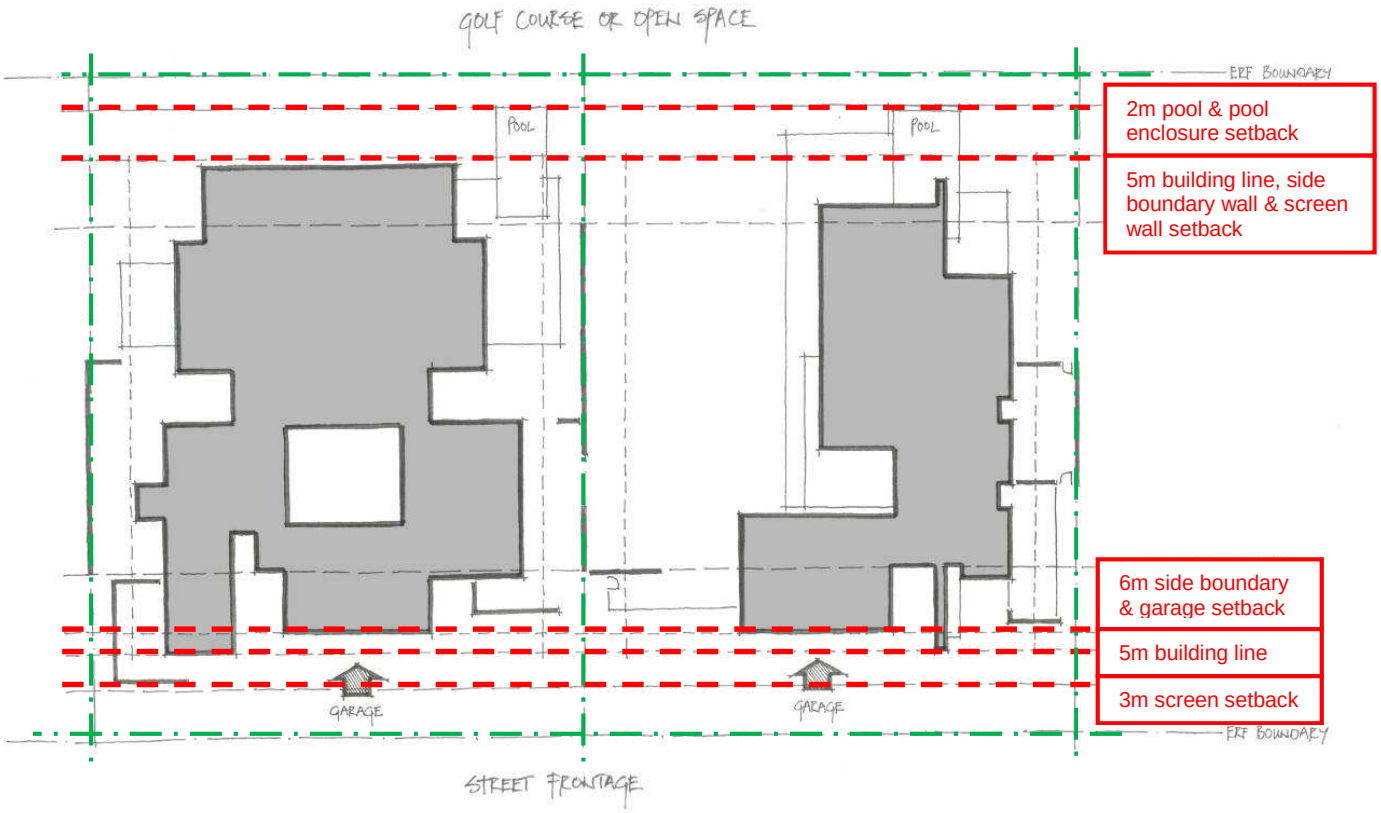
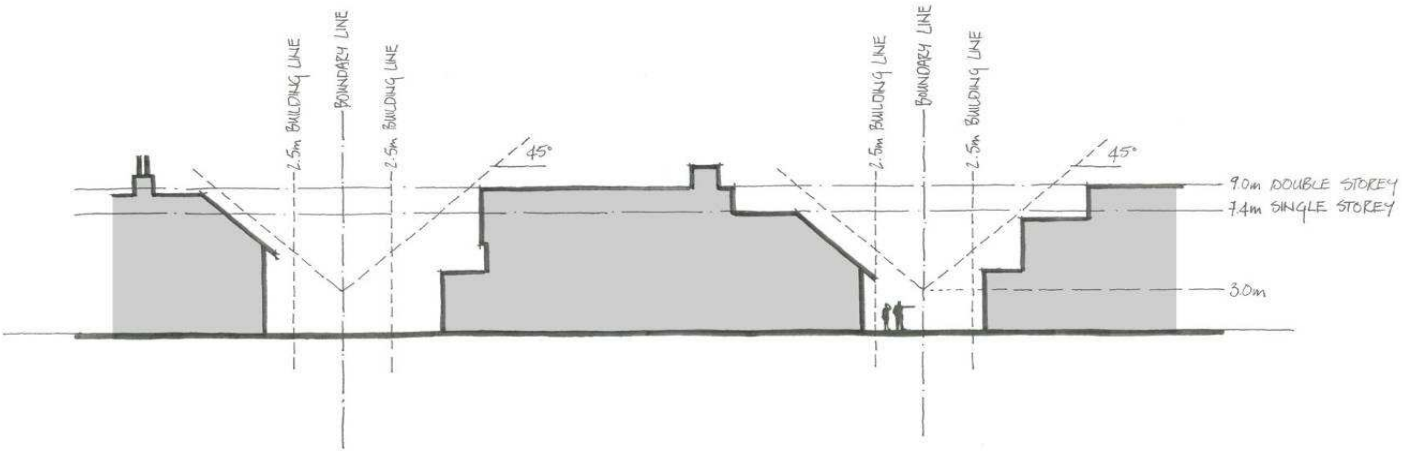


Figure 3 – Side boundaries – Height in relation to boundary rule



- lines of no access

Lines of no access are applicable to certain boundaries of erven as per the detailed Masterplan accompanied by a schedule available from the Estate Architects or the SDRC.

These lines of no access, if applicable, are indicated on the General Information Plan on the vital information CD.

Lines of no access will in general occur at all road intersections, both the corners and the portion of road opposite an intersection.

1.3 primary architectural elements

building form | envelope

Buildings should generally be made up of simple, rectilinear forms. These predominant forms should ideally have simple pitched roofs, either mono or duo-pitched. Flat roofs are intended to either be the predominant roof form or should be used primarily to connect primary pitched roof elements and secondary elements such as covered terraces and entrances etc.

Given the largely flat, horizontal lines of the landscape, the emphasis in the architecture should be on horizontality rather than verticality – architecture which sits close to the landscape and is in harmony with the landscape rather than dominating it.

Where roof pitches are 30º or more for mono or dual pitch roofs, plan widths must be carefully considered in order to maintain the correct proportion of wall to roof particularly in single storey elements. As a guide, plan widths over these sections should be kept to a maximum of 6000-7000mm to maintain proportion and reduce roof ridge heights. These proportions will be closely scrutinised during the plan submission process.

Garages and granny-flats | second dwellings should be seen as an integral part of the design of the home and considered holistically together with the house design even if detached from the main dwelling. Area calculations relative to granny flat I second dwellings to be clearly indicated within the overall area schedule total.

A maximum of 3 garage spaces facing the street of any single erven, including golf cart storage is encouraged (i.e. 3 x single or 1 x double 1 x single.), 4 garage spaces will however be permitted provided they are handled sensitively with respect to the overall streetscape and approval thereof will be solely to SDRC discretion. 4 garages grouped together and facing the street will not be permitted. Driveway connections max. width of 6m ideally at 90º to street (annotate), aggregate of

9m allowed (4.5m x 2 or 3m & 6m) if street boundary over 35m then 2x6m (with SDRC approval) permissible.

Service/utility spaces are to be articulated in such a way that they are screened from living and entertaining areas as well as from the street, golf course or green open spaces.

mass | scale | proportion

By breaking the accommodation requirements down into simple, isolated plan forms and treating the building as a cluster of buildings, connected by more moderately scaled flat roof connections, the scale & mass of a building containing significant accommodation can be visually broken down.

The fragmenting of form facilitates the stepping of the plan to suit site contours which enables experiencing of the site in the dwelling internally, assists in minimising the external visual impact, facilitates view corridors between pitched roof elements creating an interesting and undulating roofscape. The breaking down of scale and mass can be further achieved by adding flat or low pitched covered terrace/verandah/'afdak' or timber pergola elements which contribute to reducing the scale of a building to human proportions.

The use of roof space with mezzanine accommodation is encouraged to create interesting spatial relationships and reduce the height of roof lines. Please bear in mind that in terms of the new building regulations, mezzanine floor area must be included in all area calculations.

Subtle projections and deep reveals in the elevation treatment create depth and shade openings (particularly with large expanses of glass) and articulate the facade of a building through play of light and shadow.

materiality | colour | finish

Natural materials, and muted, natural earth tone colours and textures are the predominant palette for the estate. More 'slick' and clean lined materials such as off-shutter concrete are however encouraged to offset and contrast the natural earthy colours and textures. Wherever possible, climate and the surrounding natural environment should be the predominant generator for materiality and colour, inspiring the architectural decision-making. Richness and resonance in the architecture is created through the balance and contrast of material, colour and texture.

Given that external finishes are one of the primary mechanisms for creating a cohesive, appealing and unified aesthetic, the SDRC require all accredited architectural professionals to:

1. Provide an exterior finishes sample palette which must be included for approval as part of the 2 stage plan submission process. Manufacturer names and photographs of intended products, colours and finishes or colour swatches are required at this stage
2. Once construction is underway and the structure is up BUT prior to ANY external finishes being applied, sample panels of these intended exterior finishes [textures, materials + colours] must then be applied to the home for inspection and approval by the SDRC (refer to section C – Mandatory Controls).

A maximum of 3 different colours will be permitted for the external finish of the house. NO white or off white will be permitted. Natural earth tones ONLY

Once homeowners are in occupation, should they in time wish to re-paint their homes, new colour palettes indicating the intended re-painting strategy must be submitted to the SDRC for approval or new colour sample panels painted on the house for inspection and approval by the SDRC.

Please consult supplier catalogues for colours and finishes appropriate to the estate vision and the intended aesthetic of the home. Permissible construction materials, finishes and colours:

- ***walls:***

    - NATURAL DRY-PACK STONE (no less than 5%, no more than 40% of external wall surface). Screen wall treatment may be included in this calculation

No artificial stone will be permitted under any circumstances.

- wall cladding in any other material such as steel sheeting or Nu-tec boarding (max 40% external wall surface clearly indicated for approval by SDRC)

- off-shutter concrete (max 40% external wall surface)

- Cor-ten steel (max 40% - to be clearly indicated and approved by SDRC)

- textured or smooth plaster and paint

- specialised wall coatings: Marmoran, Gamma Zenith etc

    Marmoran Marakesh range: guideline colours: Safi; Casablanca; Sidi; Kebir; Tiznit; Bojador; Rissani; Missour; Sale; Tangier; Fedela; Larache; Rich; Agadir

    Other *Marmoran* ranges approved for use in the estate: Permasuede; Marmotex

- bag wash and paint (sample panel to be plastered on structure for SDRC approval)

- plaster and cementitious coating (Coprox, Cemcrete or Earthcote)

    Coprox Masonry Waterproofing guideline colours:

    Clay; Bamboo; Cane; Pumpkin; SL Tan; Mud; Drakensberg; Terrapont; Earth Yellow; SL Green

    Cemcrete Cemwash guideline colours:

    Clarens; Golden Brown; Grey; Hazelnut; Kalahari; San le Mer; Sandstone; Shell pink; Wheat; Albany

    Earthcote guideline colours:

    Cement range: Patenoster Sand; Lionshead; Driftwood; Sandstone; String; Copper Creek; Moroccan; Wet Cement; Karoo Brown; Anthracite

    Sand range: Gravel; Highveld Frost; Wynkop; Geel Bek; Harbour Wall Grey; River Bed Stone; Crushed Quarry Stone; Stoep Plank Grey; Moses Rock; Backyard Mud

    Peinture range: Boere Baroque; Monsieur Krokodil; Boet se Moet; Dikbek Dirk; Dung Beetle Brown

    Windswept: Buster Brown; Duiwel Doring; Drie Man Can; Fur on the dash; Knop Kierie Brown

- Only the following facebrick will be permitted. Intended facebrick to be clearly indicated in estate plan submission for approval - Corobrik (no more than 40% of external wall surface)

Satin range:	Wolkberg Lite Satin Bergendal Light Satin Bergendal Rose' Satin Buff Satin Country Meadow Satin Terracotta Satin Country Classic Satin De Hoop Red Satin Firelight Satin Mahonie Satin Roan Satin
Travertine range:	Firelight Travertine Rooi Travertine Kirstenbosh Travertine Terracotta Travertine Roan Travertine Mahonie Travertine

No facebrick from either the Rustic or Rockface ranges will be permitted.

The colour palette is intended to be the primary mechanism in presenting a collective architectural language throughout the estate, and stone and face-brick are intended to be feature materials and used on discrete elements such as feature walls, spine walls, screen walls, fireplace hearths and chimneys and obvious 'clip-on' elements etc.

PLEASE NOTE:

CHANGE OF MATERIAL OR COLOUR ON THE SAME WALL ON THE SAME PLANE WILL NOT BE PERMITTED, AND MUST OCCUR AT LOGICAL SEPARATIONS AND ACUTE CORNER JUNCTIONS TO SDRC APPROVAL. CHANGES OF MATERIAL OR COLOUR MAY ONLY OCCUR WHEN THERE IS A MINIMUM 100mm CHANGE IN PLANE.

The principle which reinforces the vision is truth to materials and uniformity to design elements. A stone wall should not be stone on the one side and plaster and paint on the other, it should be one finish or the other and treated holistically as a design element rather than treated as discrete planes different on all sides. **Materials, textures and colours must return in all cases, and be consistent on any architectural design element.**

All cementitious finishes must be applied naturally and strictly according to manufacturer's specifications and **no intentionally mottled or false aged plaster or paint effects of any sort will be permitted. No artificial stone will be permitted under any circumstances.**

A specific palette of natural earthy colours for all wall coatings will be selected and must be adhered to.

In an effort to prohibit imported inappropriate, stylistic architecture, NO PLASTER WINDOW AND/OR DOOR SURROUNDS, QUOINING, PLASTER BANDING OR UNNECESARY ADORNATION OF ANY FORM WILL BE PERMITTED ANYWHERE ON THE BUILDINGS.

A single coping | corbel will be permitted on all parapet walls or boundary walls if this ties in with the architecture of the home ON THE CONDITION THAT THIS SINGLE CORBEL IS TREATED IN THE SAME COLOUR AND TEXTURE AS THE WALL ON WHICH IT

SITS. Alternatively, a precast concrete coping may be used on top of parapet and boundary walls.

Powerful design has impact in its simplicity and reduction and does not require decoration or accessories in order for it to be appealing. The phrase “less is more” should be applied wherever possible in decision-making.

Door or window surrounds will only be entertained if the difference in plane is min 100mm.The intention is that the earthy palette of natural stonework, and the natural earthy colours and textures contribute to the architecture feeling as though it is ‘part’ of the environment, and creating a landscape where the built and natural environments sit seamlessly together. With that in mind, stone from a local source must be used and laid in the same dry-packed method throughout the estate. (sample panel to be constructed on site)

- ***roofs:***

  - **ONLY FLAT PROFILE ROOF TILES WILL BE PERMITTED**

  - MAZISTA ‘classic’ clay flat profile roof tiles

    natural terracotta, stone grey and matt black

  - concrete flat profile roof tiles permitted:

    Marley *Modern Range*: Terracotta; Standard Slate; Standard Brown

    Marley tile ranges NOT permitted: ***Monarch***
    Double roman
    Modern rustic
    Modern antique
    Modern designer

    Monier | Coverland *Elite*: Throughcolour Slate; Red; Brown; Terracotta; Black, Farmhouse Black

    Monier | Coverland tile ranges NOT permitted: ***Taunus***
    Double roman
    Cupola
    Perspective
    Renown
    Farmhouse
    Arkitone

  - **Shingles permitted:**
    ABE ‘TEGOLA CANADESE’ shingle line “standard range” roofing to manufacturer’s specification (accredited installers only) and installation will be permitted. Colours permitted: Black; Dark Brown; Slate Grey; 2-tone Black; 2-tone Brown

Global Innovative Building Systems – Owens Corning "Supreme Shingle Range" only.

Colours permitted: Onyx Black; Estate Grey; Brown Wood; Autumn Brown; Chapel Grey, Teak

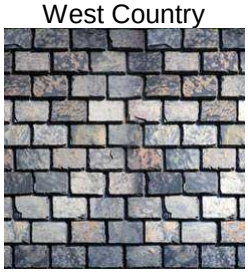
Autumn Brown | Brown Wood | Estate Grey | Onyx Black | Teak | Chapel Grey

Shingle finish may not be applied to any fascia's or bargeboards. Fibre cement fascia's and bargeboards to be painted to match roof colour.

- natural slate (Mazista or similar approved) tiles

Silver blue

West Country



- primed and painted (Chromadek) steel profiled sheeting

Brownbuilt Custom Orb (corrugated) or Brownbuilt (or similar approved) standing seam concealed-fix profile in colours: dark dolphin; dove grey; charcoal

- concrete flat roof – must be waterproofed and covered with approved loose stone chip finish.

- thatch grass – roof to be designed, installed and fire-protected according to the SABS

All materials and colours approved at the sole discretion of the SDRC.

No *'fake'* mottled, speckled or antique finish to roof tiles will be permitted. All roof tiles to have clean lines, consistent colour and no texture.

The ongoing maintenance for thatch roofs in order to keep them waterproof, and maintain the clean, crisp roof lines will be monitored and enforced.

The use of timber for pergola's, screening devices and decking is encouraged. Hardwood timbers are recommended as they require limited maintenance and last longer in the harsh highveld context.

All exposed including exposed roof eave projections must be finished preferably with approved oil based matt timber preservative with approved dark colour stain.

building height

All residential buildings may be single or double storey. Coverage requirements and building line setbacks ensure that the second storey is stepped back from the ground to reduce the massing and create an interesting and fragmented roofscape which facilitates through views.

No buildings will be permitted to exceed a height line of 9000mm or 9600mm [as applicable] above the natural ground level for all double storey-building components, and 7400mm for all single storey components.

- 9000mm all double story buildings
- 9600mm ONLY if duopitch roof at 45°

levels

In keeping with the sensitive, integrated approach to the relationship between the architecture and the natural environment, the intention is that all design responds to the specific contours of the site, and for the house to step down with the fall of the land to maintain the lowest visual impact possible.

The height of buildings is not only important with regard to minimising vertical scale and preserving views, but also should be considered in terms of sun inclination and the impact shadows have on neighbouring properties.

roofs

Roof typology, pitch, material and colour must be consistent on a property (eg duo-pitch with flat concrete or mono-pitch with flat concrete but not duo-pitch with mono-pitch, unless farm style main roof and “stoep” roof)

More than one roof pitch and material on pitched roof sections of a home will not be permitted. The only exception is where steel pitched roofs (or perhaps Shingle) are used and the intention is to create a traditional South African lower pitch “afdak | stoep | verandah” covering in a lower pitch but in the same material and colour.

Predominant plan forms must have simple pitched roofs connected by flat roof sections.

The intention is to create more interesting, fragmented roofscapes rather than large overscaled monolithic structures. Articulated forms create interest, permit more transparency between buildings, and increase natural light and views.

In an effort to foster local South African expression and strictly prevent the application of imported and inappropriate stylistic architecture such as Tuscan, Balinese or French Provincial, ANY PITCHED ROOF JUNCTIONS ARE STRONGLY DISCOURAGED, AND ONLY ONE PITCHED ROOF JUNCTION WILL BE PERMITTED PER PROPERTY.

Flat roofs should be used primarily as connecting elements and secondary elements such as covered terraces and entrances etc but flat roof home design alternatives will also be permitted.

As alluded to above, where the roof of a home is finished in steel sheeting secondary roofs (stopes, verandahs, lean-to’s, connecting elements) in low pitched steel sheeting at 3-10º max pitch are encouraged where appropriate to break down vertical scale to human proportions. These are limited to 30% of the total roof area of the home. This instance will be the only exception where the combination of mono and duo pitch roof forms will be permitted on one property on the estate. The low pitch roof junctions where these stoep | verandah roofs ‘wrap’ around the building will be permitted to encourage + support this typical and traditional ‘highveld verandah house’ aesthetic.

All pitched roofs must have gable ends, and no hipped or half-hipped roofs will be permitted.

No dormer windows will be permitted under any circumstances.

Roof pitch: (all roof pitches must be installed according to manufacturer’s specifications)

- The pitch of all clay flat profile ‘classic’ type roof tiles to be: duo-pitch max. 45º
- The pitch of all concrete flat profile roof tiles to be: duo-pitch max. 45º
- The pitch of all natural slate tiles to be: duo-pitch max. 45º
- The pitch of all shingle type pitched roofs: duo-pitch max. 45°

Clay, slate and concrete flat profile tiles in a mono-pitch solution may be a maximum pitch of 40º. Be mindful in terms of mass and proportion when using maximum pitch mono-pitch roofscapes over larger plan width areas.

Before any clay, slate, concrete flat profile tiles or shingles type roof finishes are considered in a lower pitch application the relevant manufacturer must be consulted and the product must be installed in strict compliance with the relevant roof covering manufacturer's specifications.

- The pitch of all Chromadek steel profiled sheeting to be:
  duo-pitch 20-45º I mono-pitch – maximum 30º I lean-to/verandah 3-15º
- The pitch of all thatch grass roofs MUST be 45º without exception

Thatch roofs to be a minimum of 250mm thick.

Flat concrete link roofs must be waterproofed, and where trafficable be tiled or have flagstones, and where not trafficable dressed with brown coloured approved loose stone chip waterproofing sun protection. All flat roofs to have parapet walls.

Roof typology, pitch, material and colour must be consistent on any particular property.

Openings – windows and doors

- natural hardwood - with approved dark stain or oil-based wood preservative (no colour painting will be permitted)

- aluminium – bronze anodised or powder-coated (intended colours to be clearly specified in colour palette in estate submission process for approval by SDRC) Colours to be natural muted earth tones as per the estate vision.
- uPVC – in natural mated earth tones

Glazing should generally be in clear glass, or tinted glass and is often a requirement to meet SANS 10400 XA. The use of sandblasted glass will be accepted in certain circumstances, and is preferable to the use of frosted glazing.

Subtle tinting of glazing to reduce solar heat gain is recommended, but **HIGHLY REFLECTIVE MIRROR TYPE GLAZING WILL NOT BE PERMITTED.** Should you intend using tinted glazing please supply the SDRC with either a full manufacturer description | colour, a glass sample or both for SDRC approval prior to site handover.

The articulation of openings is a fundamental mechanism in the creating of a contextually and climatically appropriate architecture. Openings should all be carefully considered in terms of their ability to connect the architecture with the natural environment and articulate natural light into the building.

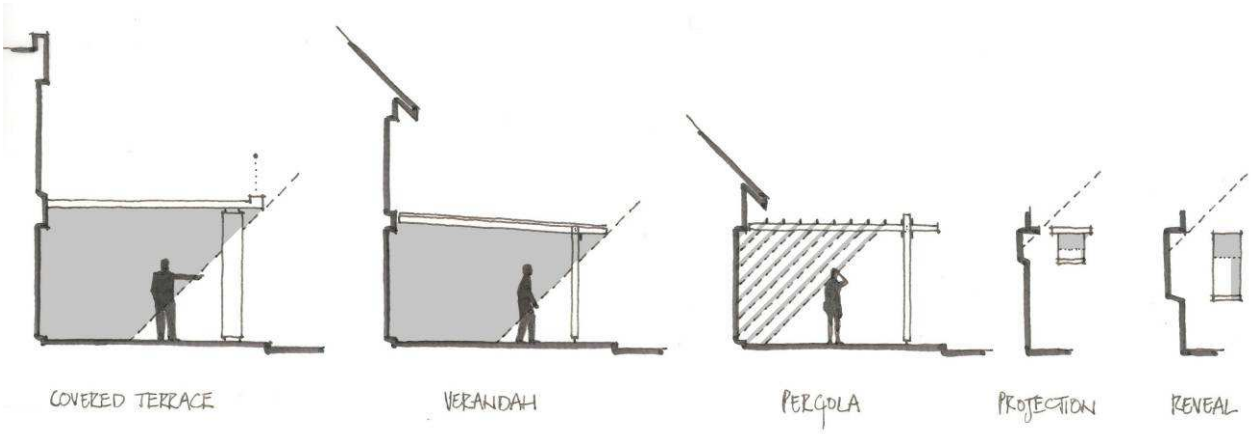
Large expanses of glass are encouraged to flood a home with natural light and views of the natural environment, in some cases able to be stacked away where appropriate to bring the outdoors in and blur the boundary between what is inside and what is out.

Picture windows can be carefully positioned to frame distant views or features in the natural environment. Groups of punctured windows can be positioned to articulate light within the home whilst at the same time create balance and interest in an elevation.

Given the South African climatic conditions, deep recessed reveals should be allowed to provide as much shading to the glazing as possible and articulate the elevations of buildings in terms of light and shadow.

Subtle projections, deep overhangs, covered patios, verandah's or pergola's should be used to moderate scale, create depth in elevations and protect large glazed areas from the sun.

Figure 4 – Protection and articulation of glazed openings

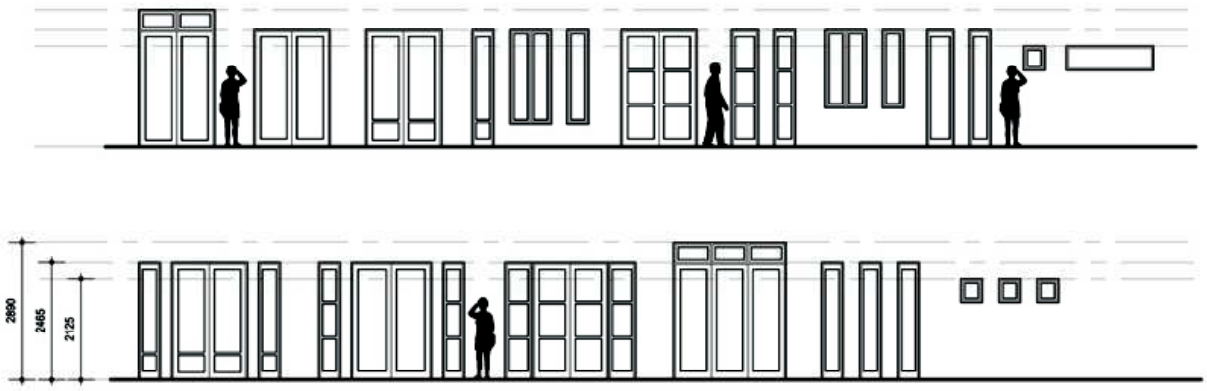


An attempt should be made, and due consideration given to the protection of windows larger than 3m² by means of deep reveals or overhangs, or by an appropriate sun shading device.

All doors and windows to be either hardwood, treated with approved timber preservative and dark stain, or bronze anodised aluminium or powder coated aluminium in approved estate colours. All opening proportions to be predominantly in the vertical dimension rather than the horizontal, and should as often as possible be guided by the Golden Section proportion of 1:1,618.

Large, vertically proportioned glazed doors and windows are encouraged with head heights of 2465mm or more. Sidelights and fanlights to doors will be permitted provide they fit the design and proportion of the doors onto which they attach. No sliding-sash, or mock sliding-sash windows will be permitted. No cottage pane windows will be permitted and large panes of glass with a minimum of mullions and transoms are encouraged. All glazing to conform to the relevant SANS codes.

Figure 5 – Examples of windows and doors and combinations thereof



Cottage pane minimum dimension of 600x600mm allowed (no less).

garage doors

Garage doors may be single or double door configuration and should be wherever possible set back in a deep reveal, 690mm recommended, and 460mm minimum. Single garage doors should be separated by a masonry column, that column should have a minimum horizontal dimension of 460mm or 575mm.

ONLY STANDARD NATURAL HARDWOOD HORIZONTAL SLATTED TIMBER GARAGE DOORS WILL BE PERMITTED. Front doors should ideally also be timber horizontal slatted to marry the aesthetic of the garage doors. Alternate front door design submissions will be

considered by the SDRC within the context of the house design and relative to the street facing elevation where applicable.

No steel or aluminium roll-up, moulded, carved or decorated timber doors will be permitted. No unnecessary adornation, decoration, carving, metal studs, gothic, Balinese or any other stylistic embellishments will be allowed without exception on any garage doors.

In the interests of reducing solar heat gain and with reference to SANS 10400 Part XA, double glazing is encouraged as is the subtle tinting of glazing. Highly reflective mirror type glazing will not be permitted. Where the use of tinted glazing is intended either for solar control or privacy, specification and sample of tint to be clearly indicated in external material palette in submission drawings for SDRC approval.

privacy | overlooking

Architectural professionals must clearly demonstrate in their submissions that the privacy of the adjoining property owners has been carefully and sensitively considered and any potential overlooking issues attended to and incorporated into the design of the home. Where adjoining erven have not yet been built upon, due consideration should be given to the potential orientation of adjoining home and the potential impact of overlooking and being overlooked. Should two adjoining neighbours experience any overlooking issues/concerns, they should seek to amicably resolve the issue with one another as would be the case with any two freehold residential erven.

1.4 secondary architectural elements

opening treatment

The use of timber or aluminium shutters is recommended as a mechanism to screen large expanses of glass from the sun thereby reducing solar heat gain, articulate the natural light, and provide indoor spaces or even potentially outdoor covered spaces protection from the sun and prevailing wind without the need to close the openings completely. Shutters also have the added advantage of providing privacy whilst at the same time allowing some light and ventilation.

Shutters must be made of the same material and finished to match the door and window frames. Shutters should generally be external sliding, or cavity sliding into a masonry cavity. Shutters are to be louvered or fixed slatted for approval by SDRC. The use of side hung louvered timber shutters will be considered.

FAKE, DECORATIVE, NON FUNCTIONAL SHUTTERS AND GABLE VENTILATORS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES

pergolas, verandah's + 'lean-to's'

These items are highly recommended where possible to achieve the desired architecture of this estate, and play a pivotal role in not only breaking down the scale of buildings to more human dimensions, and breaking down the mass of buildings into finer elements, but also provide covered or semi-covered 'outdoor rooms' which form a fundamental part of the South African way of life.

Timber pergola's may be utilised on any house regardless of the roofing choice, whereas 'clip-on' verandah's or lean-to's may only be used on homes with steel sheeting roofs given that two disparate roof finishes may not be used on the same home. Steel sheeting is the only roof finish which can be used on the required low pitch of all verandah's which is 3º-15º. Flat concrete roofs may also be used over covered terraces | verandah's etc.

All pergola's to preferably be made of hardwood timber, either untreated with approved oil, creosote or timber preservative with approved colour stain. In all cases bolted connections would be preferable rather than gang-nail connectors or similar. Pergola's may either be finished with

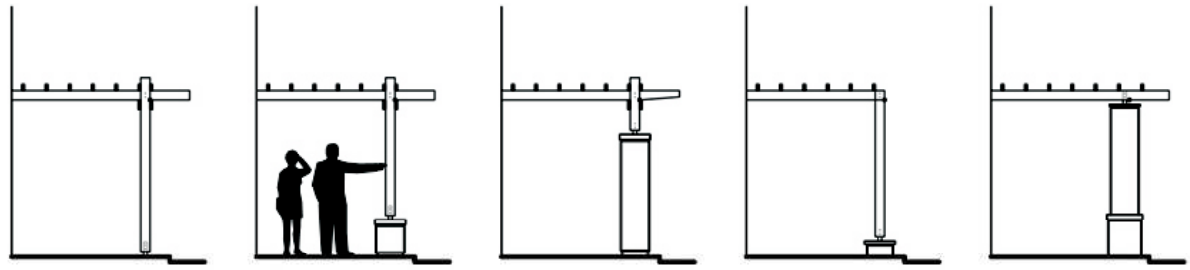
timber slatting finished to match the pergola, timber latte, or stainless steel cables at required centres which could potentially carry deciduous vines for seasonal sun screening.

Please refer to the following section for acceptable post and column requirements and descriptions.

plinths, columns + posts

The use of natural dry-packed stonework plinths is encouraged. Proud plaster plinths or facebrick plinths may be used as an alternative to stonework. No plinths to be higher than window sill height and to be dealt with sensitively with the stepping of floor plans to suit the natural fall of the site. Only simple contemporary columns made of masonry, steel or timber, or combinations thereof, will be permitted. No classical order, decorative or sculpted columns will be permitted. No fibre-cement, prefabricated historical or circular columns will be permitted. Particular attention should be paid to the detail of the junctions between the different materials that make up these columns. It is intended that these connections be clean and crisp, and the SDRC will monitor the resolution of these details carefully in the planning approval process.

Figure 6 – Columns and posts - suggestions



gables

Gable ends may have an overhang or a simple gable parapet. For steel roof sheeting, a continuous rolled steel trim piece is required to be made the depth of the purlin and the sheet end, and made in the same finish as the roof sheeting. For clay and concrete flat profile tiled roofs, the tile ends may be left exposed provided an adequate timber closer is provided at the junction between the overhang and the gable wall. Alternatively, a rake verge tile can be used as per the standard Marley or Coverland gable end roof detail.

Simple gable parapets will be permitted, PROVIDED THEY ARE A SIMPLE GABLE WALL EXTENSION AND A STRAIGHT PARALLEL LINE TO THE PITCH OF THE ROOF AT THE GABLE. No ornate, sculpted or stepped parapet gables will be permitted. Gable parapets to be treated the same as the rest of the house elevation in terms of horizontal parapet treatment.

parapets

Concrete or masonry parapets to all flat roof sections, the top of which should ideally be min. 2-3 brick courses above the top of the concrete slab. Waterproofing of all boundary and parapet walls is mandatory and | or should be finished in a simple brick, plaster or concrete coping.

Brick or plaster parapet coping must be finished in the same colour and texture as the wall upon which it sits. A description of coping to be used must be included in plans submitted to the SDRC for approval.

eaves

Where appropriate, deep eaves are encouraged in order to screen large expanses of glazing, create depth and shadow, to articulate elevations and to protect openings from summer sun and

driving summer rain. All eaves closures to be raked along same line as the roof pitch. It is suggested that tiled roofs have T + G boarding eaves closure laid on top of the rafters between tile battens. All exposed hardwood timber to be finished in approved oil based timber preservative with approved colour stain.

No horizontal eaves closure, or eaves closure that hides the truss extensions will be permitted. Verandah/lean-to eaves overhangs to project at least 450mm beyond the face of the supporting columns.

No scalloped truss ends will be permitted. Truss ends may however be trimmed or narrowed with a straight line chamfer.

Any excessive eaves overhangs be supported and to structural engineer and the SRDC approval.

roof lights

Roof lights on pitched roof sections will only be permitted where their application is in the same plane as the roof. Skylights may be used in the flat concrete roof sections, but their size and location must be carefully considered, particularly where they will be visible from public space ie any street, open space, golf course as well as from any neighbouring property.

Subtle tinting of skylight glazing will be permitted and is encouraged. Where tinted glazing is specified to control solar heat gain, only natural colour tinting will be accepted. Manufacturer's tint description to be clearly indicated in exterior material palette included in submission drawings for SDRC approval.

The position and design of all roof lights to be clearly indicated on roof plan for SDRC approval.

gas

The property on which Serengeti is located happens to have a Sasol natural gas pipeline running along a portion of the eastern boundary. Preliminary discussions have been held between Sasol and the developer with regard to a potential Serengeti Estate connection point which would then facilitate the reticulation of natural gas throughout the estate. Sasol requires a certain demand to make the installation of the tap off the pipeline viable and as such, critical mass within the estate will be required to permit the feasibility of the connection. Once at this point in time the cost and logistics around the reticulation of the natural gas throughout the estate will be discussed and resolved between the Developer, the SPOA and all Homeowners.

We have been advised that natural gas as a source of power in the future within Serengeti is a very likely and as such we require 2 x 100mm sleeves to be installed 500mm deep, 500mm from the kerb on all properties. We are further advised that if one intends making use of this natural gas in the future that one provides for it in the house design now. We are informed that should one opt for gas appliances to initially run on bottled gas (LPG) with the intention of eventually running those appliances on natural gas, that it is no problem but for a change in valve on all gas appliances.

solar panels and heat pumps

Eskom provides all Serengeti erven with a 40Amp connection, either single or three phase.

In terms of the new recently promulgated SANS 10400 building regulations it is now mandatory that a minimum of 50% of the water heating in every home is via alternative sources other than Eskom grid power. Accordingly, solar panels or heat pumps as a means of alternative power supply are encouraged. Detailed submissions on the intended solar panel and/or heat pump water heating system and strategy to be submitted to the SDRC for approval together with a clear indication of the number of panels | pumps intended, panel size, panel | pump location, inclination and intended screening method on roof plan, elevations and sections where applicable.

The positions of all solar panel and/or heat pump installations must be carefully and sensitively considered. Solar panels are ideally to be positioned flush on pitched roof sections. No geysers to

be installed on any pitched roof section under any circumstances. Heat pumps ideally to be positioned behind screen walls in kitchen yards or screened from view on flat roof areas so they are now visible from the golf course, any open space or the street.

Should an architect choose to position solar panels on a flat roof section, these solar panels must be screened from view from all public spaces as well as neighbours wherever possible. No geysers to be on any flat roof sections unless completely screened from view from all public spaces as well as neighbours.

It is recommended that geysers for solar installations be situated in the roof void wherever possible.

standby generators

The noise and visual impact of which must be very carefully considered in terms of the home itself as well as all neighbours and all fellow Serengeti residents.

All standby generators must be “super silent” or “ultra silent” type. Full standby generator specification and design solutions to address noise and visual concerns to be clearly indicated in submission to the SDRC for approval. In general, no generator should exceed 55-60dB at 7m. Electrical compliance certificate to be produced on completion of retrofitted installations.

The SPOA encourages all architects to do their research and educate their clients as to the alternative energy saving technologies currently available on the availability of alternative back systems such inverter type back-up systems rather than generators. These systems are noise free, require a very small space to accommodate, do not require refuelling so reduce ongoing running cost and unhealthy diesel emissions in the suburban context.

chimneys

Chimneys should form an integral part of the design of the home and should as such be an extension of the aesthetic of the home in their shape, form, materiality, texture and colour.

balustrades, balconies + handrails

A wide variety of balustrades and handrails to balconies will be permitted, but the materiality and detail thereof must form part of the plan submission process, and will be approved at the sole discretion of the SDRC. The use of any highly reflective materials will be dissuaded. Colour and materiality to be in keeping with that of the home and the estate vision and palette.

soil + waste pipes

All soil and waste pipes to be concealed in ducts without exception. Their location should be carefully considered and thoughtfully integrated into the design of the house. Access internally and at ground level externally to be provided by means of a suitably sized access door or panel.

If thoughtfully positioned during the design of the home ducts can effectively ‘disappear’ and not play any visible role in the aesthetic of the home, but duct positions poorly positioned or positioned as an afterthought can have a substantially detrimental impact on the success of a home

Timber, aluminium or fibre cement may be used to conceal ducts. Timber may be left natural or painted the same colour as the home, aluminium or fibre cement MUST be painted the same colour as the wall on which it occurs. The choice of material and finish should by dictated by the design of the home.

When sizing a duct, due consideration should be given to the number of fittings being serviced by the duct with adequate allowance for pipe junctions, bends and ease of cleaning and maintenance.

rainwater gutters + downpipes

Gutters and rainwater down pipes are to be used at the discretion of the architect, with the emphasis on clean roof lines and water management.

Where gutters and down pipes will be used, they should be positioned to be unobtrusive, and integrated into the design and aesthetic of the home. All gutters to be of seamless aluminium and in a colour to match the colour palette of the house – either the colour of the roof or the walls.

Concrete, paved or stone aprons are highly recommended to direct storm water run-off away from the home. Where pitched roofs without gutters are specified, hard aprons are mandatory, please refer to Dolomite Precautionary Measures in Section C of this document.

All storm water to be directed away from the home and dispersed towards the storm water collection points where possible. Ponding is to be avoided without exception.

Adequate weep holes to be provided at ground level in all boundary walls to allow the passage of surface water run-off without collecting.

Storm water strategy and treatment to be clearly described in all submission drawings. Please refer to the Dolomite Risk Management Plan under Precautionary Measures in Section C.

boundary, screen + retaining wall treatment

Boundary walls, screening walls and retaining walls are a fundamental part of the overall architectural vision and have a substantial impact on the impression of the estate. The materials and design of these walls must relate closely to the broader estate vision as well as to the specific design of the home. Visual permeability towards the golf course, towards the conservation area or pockets of open space is the goal throughout this estate, and completely visually impermeable boundary treatment on the street, open space and golf course frontages is strongly dissuaded.

Creative positioning and design of screening treatment which is integrated with and compliments the architecture and landscape whilst preserving visual permeability is the goal.

It is recommended that soft landscape screening be employed wherever possible rather than hard screening. If landscape screening is not employed, softer semi-permeable screening treatment in painted steel, vertical hardwood slatting, or hardwood latte are advised on all street, open space and golf course frontages. Combinations of solid and semi-permeable screening and boundary treatments creatively and sensitively articulated are also encouraged.

No retaining walls to exceed 1200mm from natural ground level. All retaining walls to be natural dry-packed stone without exception.

Where homeowners would like to employ low walls or raised planter boxes as part of their landscape strategy these elements may not exceed 1200mm and where golf course facing must be clad with natural dry-packed stone. Where these elements are visible from any street or other open space boundaries they may be finished in a material to match and compliment the external finishes palette of the house. These items must be clearly indicated on all architectural and landscape submissions. Low walls or raised planter boxes higher than 500mm employed on the golf course oropen space frontages are subject to the hard boundary setbacks and maximum percentages on all relevant boundaries.

Material, height and location of all screening and boundary treatment must be clearly demarcated on drawings submitted for SDRC approval. The top of all hard boundary | screen treatment to be adequately waterproofed.

No ‘Vibacrete’ or any other precast type walls or picket fencing will be permitted.

No spikes | razor wire | electric fencing on top of walls will be allowed.

No artificial stone walls will be permitted.

No sculptures of any description will be allowed on any walls.

All garden and vehicular gates should match the height of the screen wall within which it sits, and the materiality and colour thereof should be in keeping with that of the house and the broader estate. The design of all semi-permeable screening to be consistent for that property.

screening solutions for golf course | open space | street frontages

general

- For the purpose of providing enclosure & privacy to contain pets and children, a “soft” closure screen element consisting of a combination of a planted landscape berm feature and SDRC approved design steel or timber fencing may be used to create additional screening and closure on all golf course, open space or street frontages – particularly with reference to stands which have more than one street frontage. See *Figures 7 and 8.*

- **This solution is a combined solution**, made up of a fence, berm and planting along the line of this fence with the specific intention that the fence “disappears” in time as the landscaping grows and thickens. The SDRC Landscape Architect will inspect such installations within 6 months and 12 months of completion and should the fence still be very visible and planting cover not be deemed sufficient, the owners will be notified and will be instructed to increase the planting quantity and density at their own cost, to the approval of the SDRC.

- Integration and blurring of the street sidewalk landscaping with the stand landscaping as well as golf course | open space landscaping with the stand landscaping is critical to achieving a natural looking seamless result. Continuity is essential and the context within which these installations are placed require due thought and attention. The screen treatment of any adjacent erven if already developed should be carefully considered when designing a solution for a new stand and should not be treated in isolation to affect continuity throughout the estate.

- Stage 2 submission to the SDRC must clearly reflect the location, extent and design of the intended fence solutions, and Stage 3 submission must reflect the proposed berm and landscaping solutions. These items are required to be competently detailed to SDRC requirements. All screening approved in Stage 2 drawings must also be reflected on the Stage 3 landscaping layout.

- Screens in timber or steel as per approved SDRC estate design where used to enclose swimming pools must comply in all respects all relevant National Building regulations and Local Authority requirements. The onus to comply with all statutory requirements lies with the property owner and not with the SPOA or SDRC without exception.

- The installation of the berms and landscaping may not be initiated prior to a prearranged meeting on site with the main contractor, landscaper and SDRC Landscape Architect to discuss the installation and ensure compliance.

  The following fence designs are the approved Serengeti fence design guidelines for each specific public space frontage condition. Steel or timber member sizes may vary according to aesthetic preference and budget but the dimensions and principle of these designs MUST be adhered to and design and material and finish specifications thereof MUST accompany plans submitted to the SDRC for approval.

serengeti typical fence designs

Figure 7 – golf course | open space | street frontages

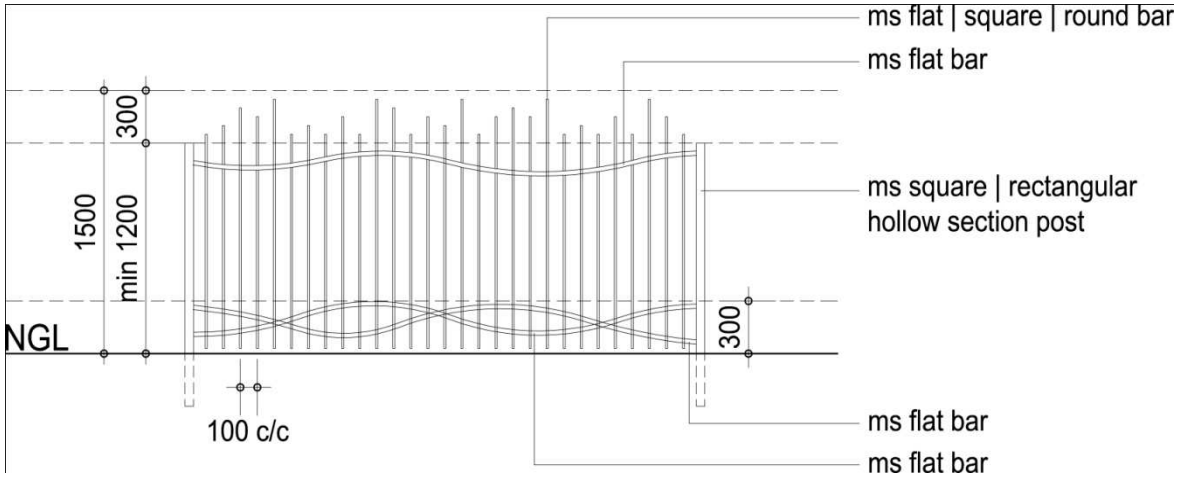


Figure 8 – golf course | open space | street frontages ***with low level pet protection***

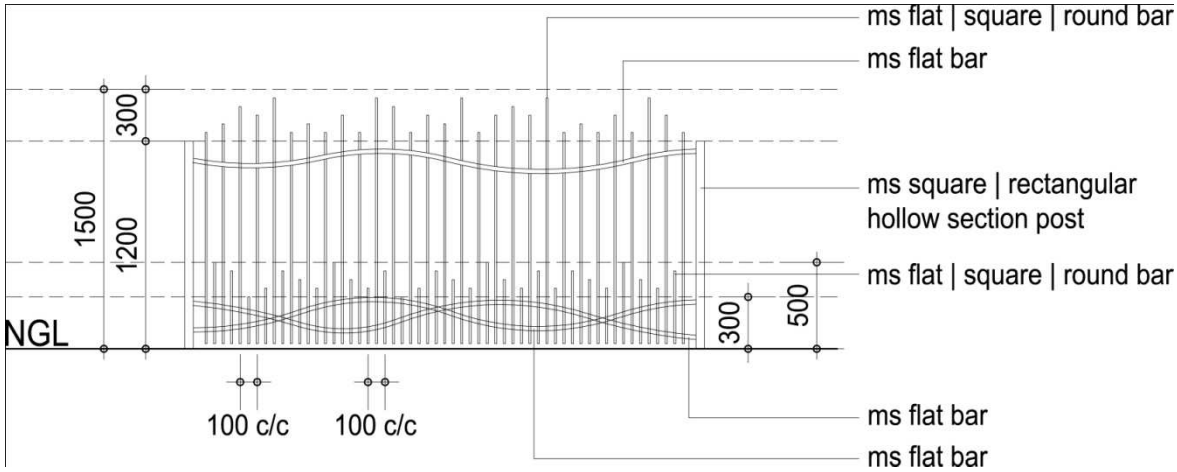


Figure 9 – serengeti boulevard frontages | estate perimeter frontages

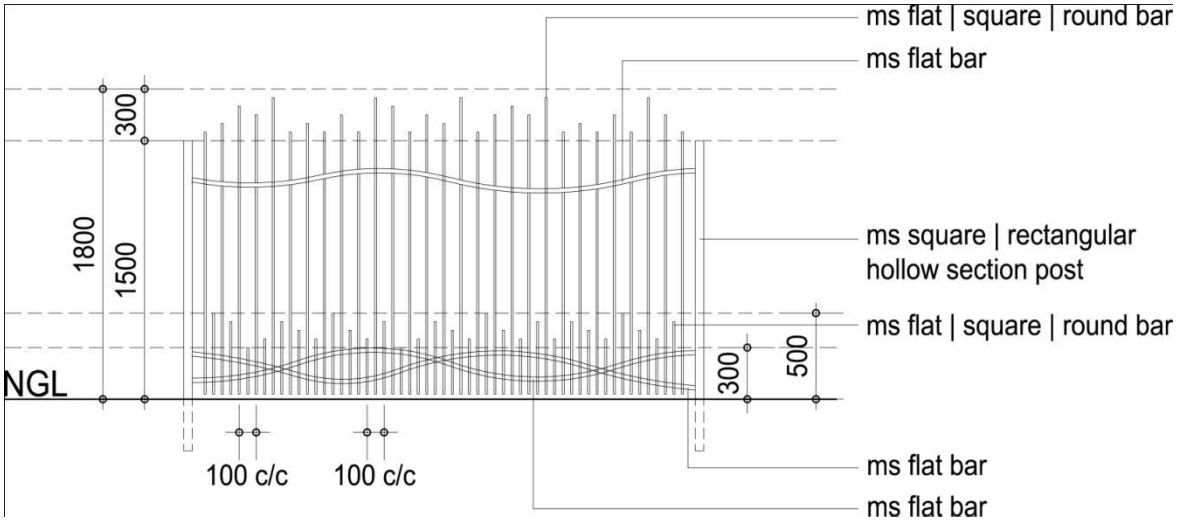
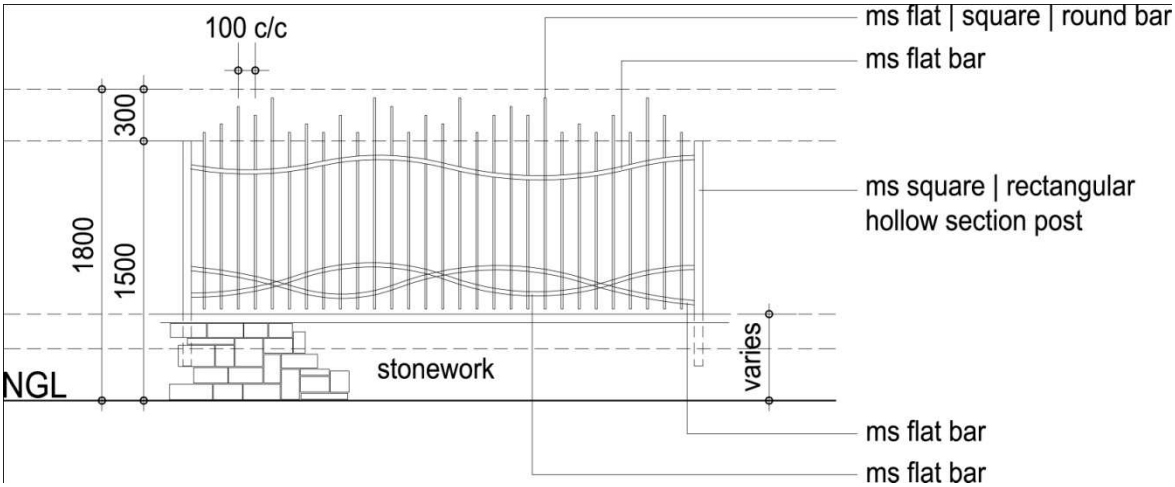


Figure 10 – serengeti boulevard frontages where berm protrudes into property



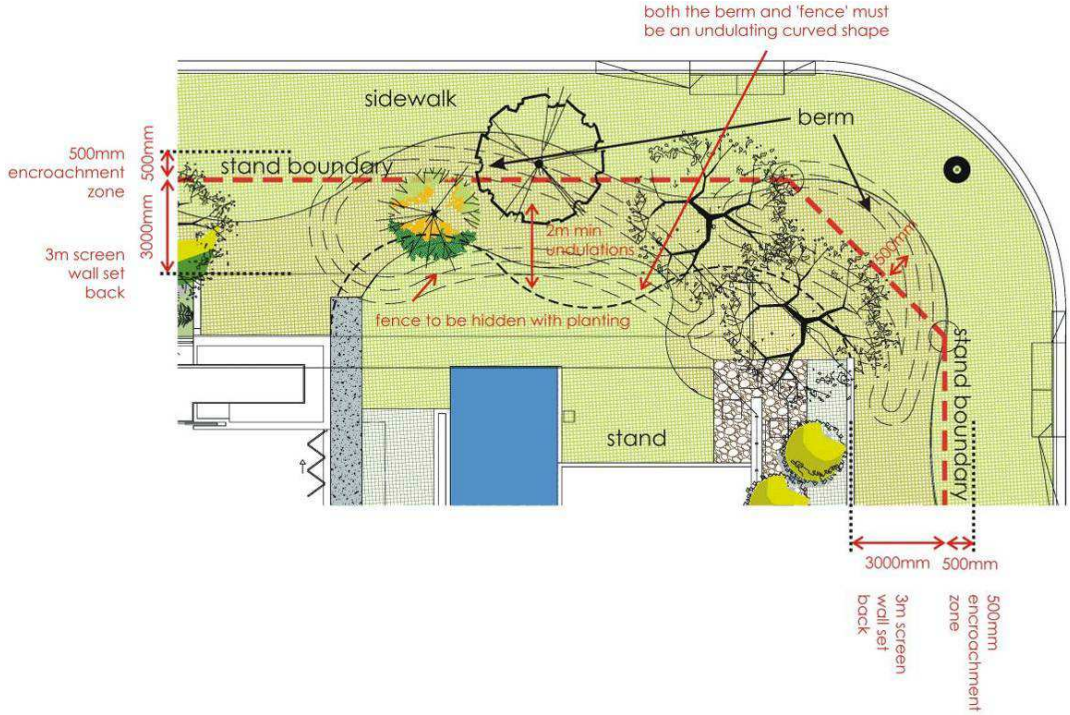
fence finishing treatment

- Steel may be painted in a natural dark brown earth tone colour which blends in with the landscaping surrounding. Pantone colour for the steel to be clearly described in SDRC submission for approval.

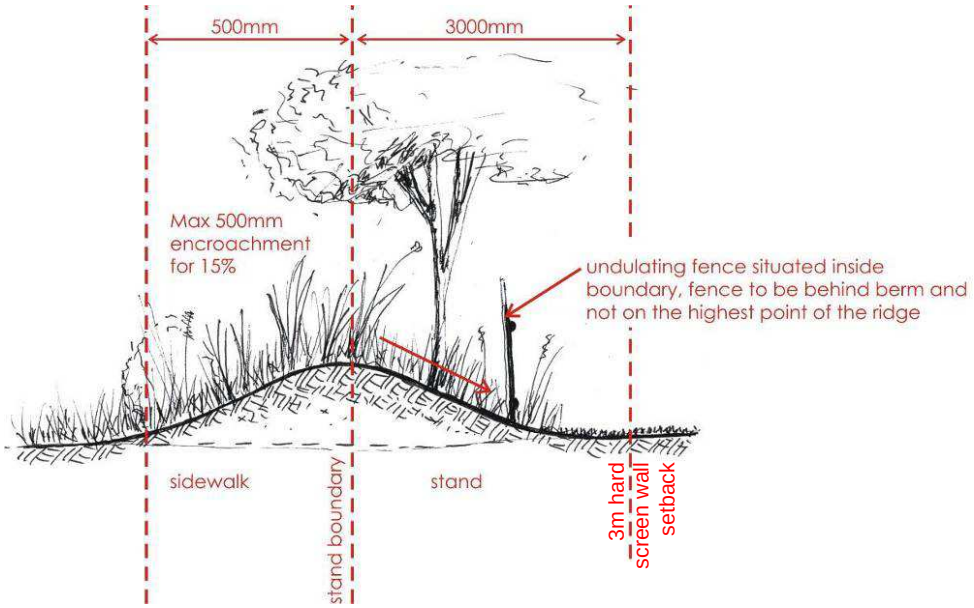
- Steel may also be allowed to rust then treated with a manufacturer's recommended sealant coat to ensure longevity.

- All timber to be hardwood timber treated with Termite protection and an approved matt oil based protection to timber manufacturer's specification and SDRC approval. The above soft screening solutions will only be allowed in strict accordance with the below stated conditions:

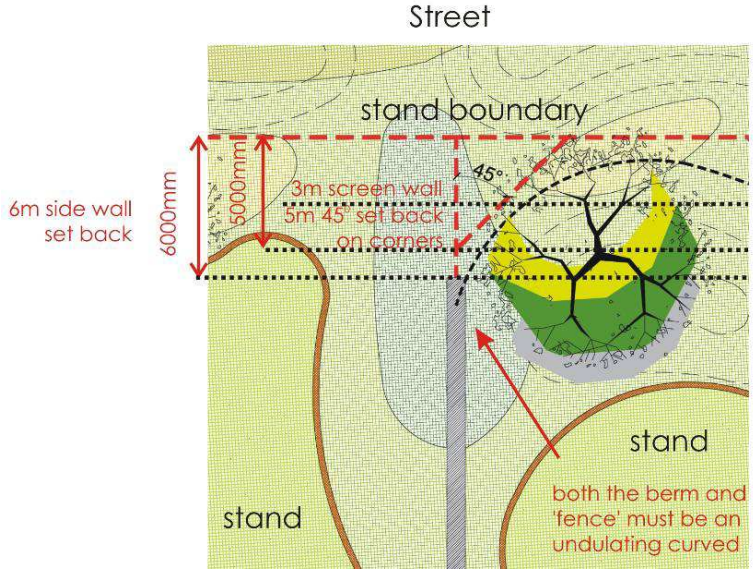
a. street boundary frontage **plan**



a. street boundary frontage **section**

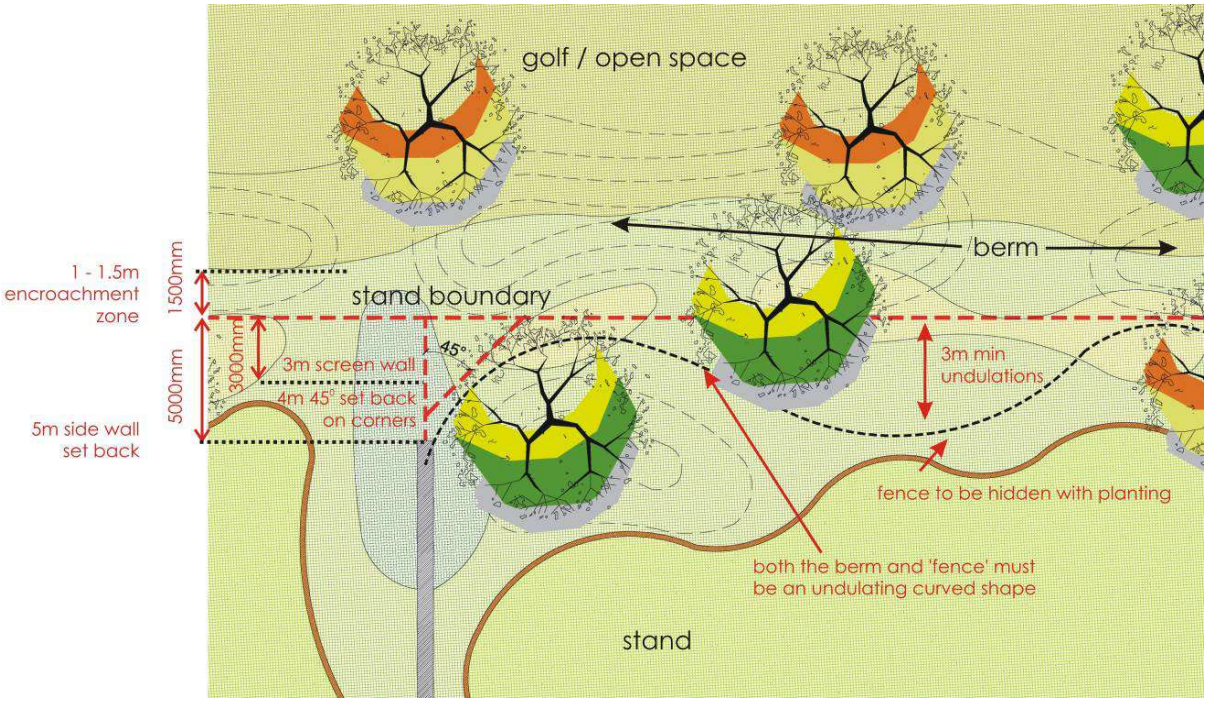


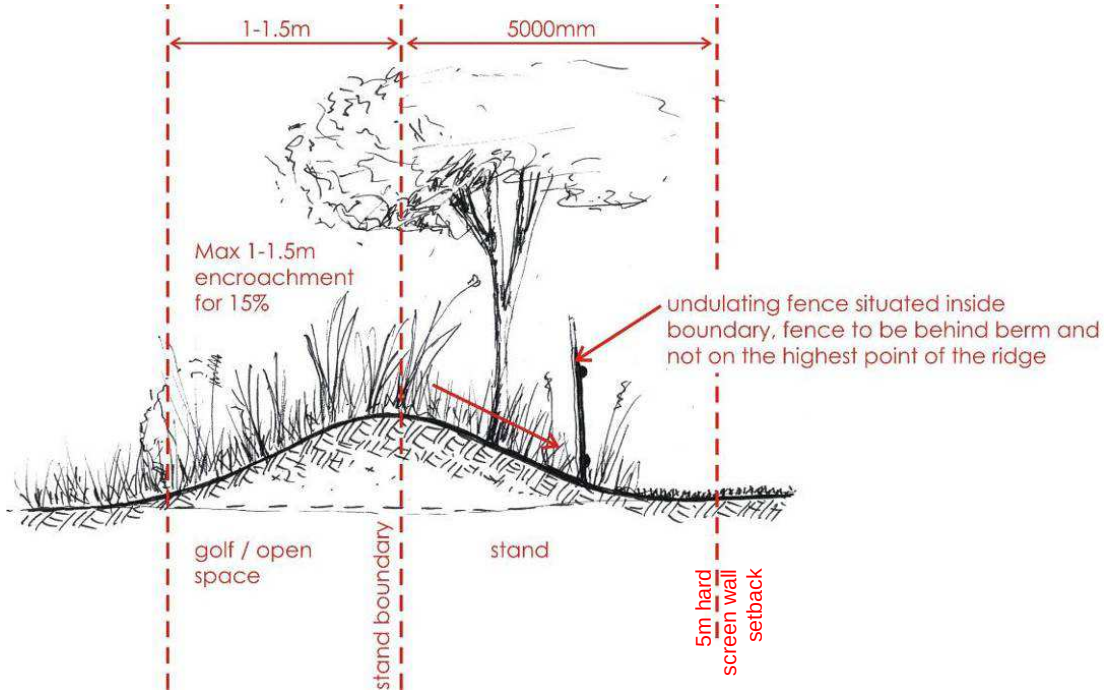
- Berm & screen may be located between stand boundary and 3m screen wall setback.
- The berm may encroach beyond the stand boundary on the street by no more than 500mm for max. 15% of the frontage length to permit integration of stand and sidewalk landscaping creating a seamless effect. **Berms may not encroach more than 500mm beyond any stand boundary on a street frontage without exception.**
- The **combined height** of berm and screen must never exceed the side wall height of 2.1m
- The screening element must always be located on the stand side of the berm. It cannot be placed on the highest ridge of the berm nor on the street frontage side
- Both the berm and 'fence' are required to be undulating and vary in height/width along its length as a natural element in the landscape blurring any visible distinction between sidewalk planting and stand boundary. Both are required to be an irregular organic curved shape with undulations of minimum 2m along its lengths, no uniform repeated curves, straight line sections or 90 degree junctions will be permitted
- This treatment is permissible on 100% of the relevant frontage length. Connection back to side walls on the 6m sidewall setback line is subject to a 5m 45° line restriction as indicated in sketch below. Berm form and screen elements should always decrease in height toward the boundary with the neighbouring erven



- If solid I masonry walling is required anywhere along the length of the frontage alongside this additional screening treatment then current guideline restrictions of 50% on the secondary street frontage on the 3m hard screen wall setback line apply. No screening will be allowed to sit one in front of the other on both the 3m line and between the stand boundary and 3m line.

b. golf course and open space frontage **plan + section**





- Berm and screen may be located between stand boundary 0m & 5m hard screen wall setback.

- Landforms are permitted to encroach about **1-1.5m MAX** beyond the stand boundary into the golf course | open space for no more than 20% of the total frontage. Integration and blurring of the golf corridor edge landscaping with the stand landscaping is critical to obtain a natural looking seamless result. These will be strictly policed by the SDRC & scrutinizing Landscape Architects in Stage 3 landscape design submission.

- **No berming or private landscaping may encroach more than 1.5m beyond the stand boundary on the golf course without exception.**

- The combined height of berm and screening must never exceed the side wall height of 2.1m

- The screening element must always be located on the stand side of the berm. It cannot be placed on the highest ridge of the berm nor on the street frontage side.

- Both the berm and approved screening are required to be undulating and vary in height/width along the length as a natural element in the landscape blurring any visible distinction between stand planting and golf course planting. Both are required to be an irregular organic curved shape with undulations of minimum 3m along its lengths, no uniform repeated curves, straight line sections or 90 degree junctions will be permitted.

- This treatment is permissible on 100% of the relevant frontage length. Connection back to side walls on the 5m sidewall setback line is subject to a 4m 45° line restriction as indicated in sketch below. Berm form and screen elements should always decrease in height toward the boundary with the neighbouring erven.

- If solid I masonry walling is required anywhere along the length of the frontage alongside this additional screening treatment then current guideline restrictions of 50% length on the 5m screen wall setback line or 60% in the instance of stands with frontages of 35m or more in length on the 5m hard screen wall setback line apply. No screening will be allowed to sit one in front of the other on both the 5m line and between the stand boundary and 5m line.

c. **serengeti boulevard frontage**

- Screening will be permitted on the erf boundary adjacent to Serengeti Boulevard provided the screen is as per the Serengeti screen | fence for this condition, see *Figure 9*, and is no more than 1.8m high. In some cases the substantial berm screening Serengeti Boulevard from these erven might continue beyond the erf boundary and into the erf. In these cases the fence design must sit on a low retaining wall as per *Figure 10* above.

d. **estate perimeter frontage**

- Screening will be permitted on the erf boundary adjacent to the estate perimeter provided the screen is as per the Serengeti screen | fence for this condition, see *Figure 9.*

timber decks

The use of timber decks is encouraged over the use of tiles on large open terraces. The use of natural and enduring materials is preferred, and decks appear to sit lighter on the landscape, floating over nature providing a softer transition between the built and natural environment.

Very stable hard woods appropriate to extreme highveld conditions are recommended for all decking due to minimum maintenance requirements and natural weathering properties which will enable the material to gain a natural patina over time exposed to the elements.

1.5 site considerations

laundry refuse + gas enclosures

All areas for laundry, refuse and gas storage must be completely concealed from view from any public spaces and neighbours wherever possible, enclosed by solid screen walls constructed in a material, colour and design appropriate to the design of the home.

All gas bottle enclosures to comply with SABS regulations without exception.

waste management

The SPOA is in the process of instituting a waste management & recycling initiative in an effort to contribute proactively to developing and maintaining a more sustainable living environment within the estate. This system will requires the home owner to make adequate provision for at least 3 x 240L wheelie bins to be accommodated within screened off yard spaces as described above.

water tanks

Rainwater harvesting is strongly encouraged in the estate to minimize reliance on council supply for all water demands. Corrugated steel type water storage tanks are the preferred aesthetic to be used where these tanks will be visible or made a feature of. We ask that all other types of water storage tanks be screened off and not visible from the street, adjacent erven, golf course, or any public open spaces or alternatively buried underground with necessary precautionary measures met in terms of the SABS.

Should you wish to make use of a water harvesting system, we ask that you submit a clear proposal of what system you have in mind, describing capacity | type | manufacturer | position and screening of storage tanks to the SDRC for approval along with your plan submission. The appointed engineer must sign off should you wish to bury your water storage tanks.

driveways + paving

All driveways and paving must be designed, surfaced and finished according to the landscape guidelines as set out in the landscape section of this document, and described in detail for scrutiny in the plan submission process. In all cases the driveway finish should be taken to the kerb.

In most circumstances, a maximum driveway width of 6m, orientated 90º to street will be permitted from kerb to boundary line. Two driveway access points from the street will, however, also be permitted and these two access points must together not exceed a width of 9m (to SDRC discretion) but as above must always be at 90º to the street wherever possible.

On all cul-de-sac's driveways 6m wide, and at 90º from centre of circle will apply, but driveway width is permitted to broaden 3m from kerb line not from boundary line as is applicable in all other typical cases.

NOTE: 2 x 110mm diameter sleeves to be installed under all driveways 500mm from the kerb 500mm deep in all circumstances.

swimming pools + enclosures

Position and design of swimming pools and any swimming pool screening should be considered with specific reference to the design of the house and the site conditions for that particular house, and can play a pivotal role in maintaining or increasing the value of a property.

Each individual resident is responsible for the necessary safety precautions to be taken around swimming pools and any other water features. Home owners and their architects take full responsibility and liability with regard to ensuring any pool enclosures comply to all relevant NBR and SABS requirements.

Swimming pools to be set back a minimum 2m on all boundaries except street boundaries, where they must be behind the 3m building line. On all golf and open space boundaries, should the pool be on the 2m pool building line, the fence enclosure is required to be 90-95% visually permeable and combined with landscaping to comply with the Serengeti design guidelines outlined in section **1.4** under the heading "*boundary, screen + retaining wall treatment*". Should the homeowner choose a solid pool screen wall at a height from 1.2m to 2.1m then that swimming pool and solid screen wall must be behind the 5m screen wall setback and max 50% of frontage rule applies to the screen wall. Should the owner choose to have a solid pool screen wall at max 1.2m, that pool and hard pool screen wall must both be behind the 2m pool setback line and the screen wall may only be a maximum of 40% of the stand frontage.

Swimming pools should as a general rule be submerged in the ground and not protrude more than 500mm above natural ground level at any point.

Swimming pools are to be backwashed or drained into the sewer system and may under no circumstances be pumped into natural public open spaces, storm water drains or onto the golf course.

stormwater

Each property owner must take full responsibility for all stormwater entering or originating in his property. Stormwater consideration must be indicated clearly on a separate Stormwater Management plan by a certified Engineer, and accompanied by the Ekurhuleni Engineer's Compliance Certificate with all relevant boxes checked including stormwater (Please refer to the Dolomite Risk Management Plan and associated Precautionary Measures in Section C of this document).

Any Stage 2 plan submitted to the SDRC without this Stormwater Management Plan AND SANS 10400 form 2 completed and signed by an engineer will not be accepted for scrutiny or approval until this minimum requirement has been met.

television aerials + satellite dishes

Provision of satellite dish MUST not be an afterthought and must be carefully considered by the architectural professional during the design of the home.
Any external satellite dish installed on a home, must be strategically situated between pitched roof sections, positioned so as to not be visible from the golf course, any public open space or street. If a dish positioned in the best possible, optimal position for reception is still visible from the golf course, any public open space or street, this dish must be screened from view using a slatted screen in material to match the external aesthetic of the home.

Under no circumstances may the installation of ANY satellite dish be on an external wall of any dwelling if visible from any public space.

The intended position of satellite dish to be considered by the owner and architect during the design of the home and this intended position to be clearly indicated on the roof plan and relevant sections and | or elevations of all Serengeti submission drawings with necessary raised parapet walls or screens shown to hide dish from view if necessary. All final satellite dish positions to be confirmed and agreed on site with the SDRC.

Serengeti has confirmation from specialists that all DSTV dishes within the estate should be a 80 – 85cm dish, installed facing in a due North Easterly direction.

Please refer to the IT | Communication Guidelines section of this document for more information.

air-conditioning units

Due consideration must be given by the architect during the design stages regarding the concealment of all air-conditioning units and ducting from view from the street, the golf course, any green open space and adjoining properties.

AC units to be preferably located on ground within a screened area to ensure concealment. Units and ducting may also be located on flat roof slabs provided they are either not visible or adequately screened to conceal view from any golf course, open space or neighbouring erven.

Pitched roof installations will not be permitted.

The position and treatment of all AC units MUST be clearly indicated on plans AND elevations submitted for approval by SDRC.

boats, trailers, caravans + golf carts

None of the above may be kept on any public spaces or public roads.

Stored on private property these items must be concealed from view from the road, the golf course, green open spaces and adjacent properties, preferably stored in garaging. No vehicular covering of any sort, carport/ shade net will be permitted. Any cover for vehicles must be integral to the design of the house.

signage + lighting

The position and design of all external light fittings to be considered in terms of subtlety, effectiveness and glare. No coloured lights will be permitted. Cut-off type light fittings to be used on buildings which push light down and avoid any glare. No illuminated signs will be permitted. External light design strategy to be included in landscape plan submission for approval by the SDRC.

House numbers at the street to standard detail by Developer and SPOA in the form of a standardized reflective triangle mounted on the pavement kerb at each residence. This is the chosen standard for house number signage for the estate. The Home owner will be charged a small fee payable to the SPOA for purchase and installation of the standard house number system. The position of the numbering system on the driveway kerb is to be carefully considered such that it is not obscured in any way ensuring visibility for response vehicles and estate services.

House names and street numbers which are personal and which tie into the specific design of the home will be permitted but must not exceed a vertical dimension of 300mm and a horizontal dimension of 1,8m and MUST be submitted to the SDRC for approval prior to installation. This does not need to be submitted along with the Stage 1 or 2 submission and may be included in the Stage 3 landscaping submission.

security

The principle behind security at this estate is that it is managed professionally and effectively at the estate perimeter, and policed within the estate by the estate security to give residents complete piece of mind without having to secure their stand boundary or home with unsightly security installations.

Should purchasers insist on burglar proofing their home, burglar alarms are recommended for their effectiveness and minimum visual impact. Should homeowners insist on burglar bars it is critical that this is one of the initial design considerations of the home, and that due consideration is given to the sensitive position, colour and design thereof. All burglar proofing to be internal and as visually unobtrusive from the street, open spaces and golf course as possible.

temporary structures

No temporary structures including Zozo huts, Jungle gyms, Wendy houses, garden sheds, vegetable enclosures or similar structures will be permitted if visible by any neighbour, or from any street, open space or golf course boundary. Garden equipment storage is almost always required and as such we recommend the necessary provision be made within the design of the house.

Should an owner wish to have one of these temporary structures on their property, an application must be made to the SDRC for approval, and it should be designed and located to be out of sight from any open space and be constructed of timber without exception.

No awnings or screens of any description, whether fixed or moveable will be permitted. The only exception to this rule is where an awning is not visible FROM ANY PUBLIC OPEN SPACE and in this case a submission must be made to the SDRC clearly describing the awning to be used.

No golf screening/protective netting will be permitted on any property.

GENERAL NOTE:

ARCHITECTS ARE TO CLEARLY READ, UNDERSTAND AND TAKE NOTE OF THE CONTENT OF THESE GUIDELINES AND COMMUNICATE ALL THE CRITICAL PRINCIPLES THEREOF TO THEIR CLIENTS **UPFRONT** PRIOR TO ANY DESIGN DISCUSSIONS TAKING PLACE.

The estate vision and the architectural guidelines are clear, and neither the Developer nor the SDRC will not enter into any discussions or debates should an architect have “sold” a design expectation to their clients which cannot be delivered within the vision and guidelines of this estate.

2. LANDSCAPE DESIGN GUIDELINES

2.1 landscape vision

The goal of the Serengeti landscape is the creation of a characteristic, unifying and harmonious natural environment, which accommodates both individual and natural systems to their mutual benefit. The conservation of native indigenous vegetation and the promotion of its use in public and private areas is a valuable objective and will contribute greatly to ecological diversity and habitat creation.

The combination of the conservation, golf course and residential landscaping will play a major role in absorbing the overall visual impact and diversity inherent in this residential estate. The objective is to extend the naturalness of the conservation area and theme planting of the Central Boulevard and secondary roads, to the private gardens as well. This is achieved through the correct promotion of native indigenous trees and larger shrub species.

Local indigenous plants are also important for their role in providing habitat and food for local birds, insects and small mammals, etc, as well as their drought resistance and general hardiness.

The landscape design and associated planting at Serengeti Golf and Wildlife Estate should form an integral part of the architectural design process and shall not be seen as an "add-on" once a home or building is complete. Well-designed gardens, courtyards, avenues, water features, terraces, pools, pergolas and fences shall be used to enrich and complement the Natural Environment and Architectural language of the development. The design of external spaces and the link between the land, water and built form is seen as integral to the character and aesthetic success of the estate as a whole.

2.2 private and public landscaping

The intention in the greater landscape design is to preserve and protect the unique qualities of this Highveld, grassland landscape. It is characterised by its undulating grassland topography together with unique wetlands and riverine tree scapes.

Residents are also strongly encouraged to make use of local indigenous plants in their private gardens as far as is practical and to select plants from the recommended plant list. The plants can be used in an informal or a more formal manner, where a design theme dictates.

In order to maintain continuity in the overall landscape character, owners of erven are required to design and to implement the garden landscapes around the houses in accordance with certain conditions, specifications and restrictions.

In this way the collective indigenous landscape theme will be realised for the appreciation and benefit of all. A plant list of approved plants will be made available by the developer.

2.3 private landscapes

2.3.1 landscape conditions for home owners

1) A landscape development plan for the garden of an erven is to accompany the building plan submission, and both will need to be approved by the appointed Serengeti Design Review Committee (SDRC).

2) This plan shall be to a scale of 1:100 and shall show the following:

    i. Standard notations to include: Client/Developers name, Erven number, Landscape designers name and contact information, date, scale, north indicator, etc.

ii. The plan must also include a clear legend consisting of the all hard and soft landscaping to be installed. The plant list must indicate the common names, botanical names, plant bag size, and density of planting.

iii. Adjacent areas of private open space or golf course.

iv. All grading, retaining and terracing intended to be undertaken, including gradients and structural elements, must be indicated. The maximum natural landscape slope is 1:3.

v. Indicate the position of the existing trees to remain and the existing trees to be removed (removal of trees is restricted).

vi. The intent of dealing with any stormwater run-off in the landscape must be indicated.

vii. All plant material, species, numbers, spacing and size must be indicated, including grass species for lawns and these must conform to the restrictions in plant choice given in these guidelines.

viii. All paving, water features, swimming pools, pumps and filters, fences, gazebos and any other structural elements must be indicated, and the intended finishes specified. This must include details of stormwater handling and elevations where relevant.

ix. The type of irrigation system and irrigation layout (if applicable), pipelines, sprinkler positions and sprinkler types and intended coverage area must be indicated.

2.3.2 landscape design code

- Maximise inter-connectivity to natural areas and the public open space.
- Adoption of a natural design style approach with a fluid and indigenous feel should be encouraged.
- Be consistent with the character of the landscape design to reinforce neighbourhood identity of the Estate.
- Preserve and frame views both into and out of the erven/stands.
- Incorporate the elements of a gateway, paths and destinations:
  - Gateways: entries providing transition from one space to another.
  - Pathways: routes that lead to a destination.
  - Destinations: focal points that can include anything from a garden bench at the end of a path to a civic centre at the end of street.
- The use of xeriscape design principles to facilitate water conservation should be encouraged:
  - Well planned planting schemes.
  - Plants from the planting list
  - Appropriate turf selection.
  - Use of mulch to maintain soil moisture and reduce evaporation.
  - Zoning of plant materials according to their microclimatic needs and water requirements.
  - Improvement of the soil with organic matter if needed
  - Use of appropriate organic fertilizers
  - Efficient irrigation systems.
  - Proper maintenance and irrigation schedules.
- Work within the guidelines set forth below and in this document. The following elements are encouraged:
  - Simplicity
  - Contrasting textures and plantings
  - Use of ornamental grass/grass-like plantings
  - Use of flower meadow planting
  - Balanced proportions
  - Use of natural materials (stone, rock, etc.)

- Plants having similar water use to be grouped together in distinct hydro-zones and to be shown on the landscape plan.
- High hydro-zones to be separated from low and very low hydro-zones by moderate hydro-zones.
- Plants selection to be based upon adaptability to climatic, geology and topography of the Estate.
- Protection and preservation of native species and natural areas is encouraged.
- Tree planting is encouraged wherever consistent with the other provisions of this code.
- Nonporous fabrics e.g.: black plastic, shall not be allowed to cover soil.
- Soil preparation to be suitable for the plants:
    - Add organic material (composts and fertilisers) for High and Moderate hydro-zones, but not for Low and Very Low hydro-zones.
    - Scarify to 150mm, with organic or other planting soil as specified by landscape architect.
- Re-circulated water may be used for irrigation purposes.
- Artificial plants, grass, and other artificial plant material will not be permitted as a means of achieving water-efficient landscapes.
- Maximise the use of indigenous species (See Table A).
- Landscapes to consist of a variety of species to enhance biodiversity.
- No one species to make up more than 25% of the total non-grass plant materials on the site.

2.3.3 landscape restrictions for home owners

1) The gardening and landscaping activities of an erven owner shall be confined to the physical extent of the pegged residential erven.

    i) No extension of an erven garden into an adjacent area of golf course, fairways or out of play area will be permitted. This includes irrigation, plantings, storage, fencing, pool equipment, earth mounds or portions of embankments or cut slopes.

2) An erven owner, or anyone employed by him, may not remove trees, landscaping, or any other plants or natural elements such as rocks or firewood from the conservation area.

3) Existing trees located on the erven can only be removed by the owner should the position of the existing tree be directly in the way of new structures (including swimming pools) and paving, or if the tree is declared unstable/unsafe. Before a tree can be removed it must be approved by the SDRC.

4) No trees, landscaping, or other plants, may be removed from the greater golf course by an erven owner.

5) Kikuyu grass (Pennesetum clandestinium) is not allowed to be cultivated or planted on an erven.

6) Cool season's grass or cultivars of it are the preferred lawn types.

7) No Palms, Confers or Cordyline species will be permitted

8) No variegated or 'unnatural colour' plants will be permitted

9) All declared invasive alien plants, trees, shrubs and grasses are not permitted within the estate and may not be cultivated or planted in erven garden. Refer to item 2 under 2.3.3

10) Fences shall comply in height, position and construction with the architectural guidelines.

11) Garden lighting – refer to architectural guidelines.

12) Where the intention of the erven owner is to cultivate a hedge, the position, type and final height shall be indicated on the submitted landscape plan.

13) Rock features, concrete statues, pots, and water features viewable from the road or the golf course must be approved by the SDRC prior to construction.

14) Any proposed irrigation system must be connected to the house potable water system; the homeowner is thus responsible for the payment of potable (and irrigation) water usage.

15) The owner is to control any soil erosion issues that may occur on their erven through the use of recognised, common practice, erosion control measures. Any erosion damage on the common areas of the estate, or to the properties of adjacent owners will be for he responsible erven owner's account.

16) Invasive alien vegetation clearance on any underdeveloped erven, remains the responsibility of the owner and must be undertaken on a quarterly basis, failing which the Home Owner's Association will undertake the clearance at the owner's cost.

17) In some zones of the estate the extension of an erven garden area into the immediately adjacent verge is obligatory subject to certain specific design requirements. In other zones (still to be indicated) no extensions will be considered in the interests of the greater visual impact and sensitivity. Such requirements will be indicated on the site diagrams.

18) No extension of an erven garden into an immediately adjacent conservation area will be permitted. This includes irrigation, plants, storage, fencing, pool equipment, earth mounds, portions of embankments or cut slopes.

2.3.4 plant species not permitted

1) No alien plants may be cultivated in the erven landscape garden. Non-invasive exotic species will be allowed in the enclosed courtyards only. Plants can only grow 1m higher than the courtyard walls in these areas.

2) Any Plant found on the Table indicated in Regulation 15 (Conservation of 'Agricultural Resources Act, Act No 43 of 1983), and any subsequent revisions to the list.

Alien plants should be eradicated. The following categories of declared weeds and invader plants are recognised (Amendment to the regulations of the Conservation of Agricultural Resources Act No. 43 of 1983 - see Regulation 15, promulgated on 30 March 2001).

Category 1 plants**:**

They are prohibited and must be controlled by the land user.

Campyloclinium macrocephalum	Pom-pom weed	Pom-pom bossie
Cestrum aurantiacum	Orange cestrum	Oranjesestrum
Cestrum laevigatum	Inkberry	Inkbessie
Cirsium vulgare	Scotch thistle	Skotse dissel
Cortaderia jubata	Pampas grass	Pampasgras
Datura ferox	Large thorn-apple	Grootstinkblaar
Datura stramonium	Common thorn apple	Gewone stinkblaar
Opuntia ficus-indica	Sweet prickly pear	Turksvy

Solanum mauritianum	Bugweed	Luisboom
Solanum sisymbriifolium	Dense-thorned bitter apple	Wilde tamatie

Category 2 plants:

These are plants that serve a commercial purpose, e.g. shelterbelt, building material, animal fodder,medicinal function etc. Plants may be grown and maintained in demarcated areas provided that permission is obtained and a permit is issued. Steps should be taken to prevent the spread of these plants.

Acacia mearnsii	Black wattle	Swartwattel
Eucalyptus cf. sideroxylon	Black ironbark	Swartysterbasbloekom
Pinus canariensis	Canary den	Kanariese den
Populus x canescens	Grey poplar	Vaalpopulier
Salix babylonica	Weeping willow	Treurwilger

Category 3 plants:

These are ornamentally used plants. These plants may no longer be planted, maintained or multiplied. Existing plants may remain, as long as all reasonable steps are taken to prevent the spreading thereof. They are not allowed within 30 m of the 1:50 year flood line of watercourses and wetlands.

Melia azedarach	Seringa	Maksering
Morus alba	Mulberry	Moerbei

2.3.5 recommended plant species

1) It is the intention of the landscape design planting theme to encourage the use of 'Water-wise' indigenous gardens, complemented by vernacular trees and shrubs of the Highveld region. The list of species has therefore been compiled to guide the planting design of gardens.

2) See 2.6 below, indicating the permitted plant species.

3) Indigenous shrubs and groundcovers are preferable, however, a maximum of 15% exotic shrubs and groundcovers (in terms of coverage) is allowed. The exotic shrubs and groundcovers must not be declared weeds or invader plants (see 2.3.3.2 above).

2.3.6 hard landscaping

1) Hard landscaping surfaces, i.e. brick paving, tiling, etc. around houses will not be permitted to cover the entire site. Cumulatively paving shall not cover more than 25% of each erven area and a minimum of 25% of each even must be soft landscaping.

2) All hard landscaping to be installed in accordance with SANS 1200MJ.

2.4 sense of place elements

South African Highveld
Grassveld plains
Thorn trees
Water as natural resource
Meandering watercourse
Wetlands and associated vegetation with abundant bird life
Free roaming game
Sunsets
Wide open and undulating topography
Thunder storms
Special conservation status
Stonewall remnants
Farmsteads

2.5 construction and site activity

1) All construction processes and site activities must strictly adhere to the documented EMP, which can be obtained from the developer.

2.6 recommended indigenous plant list

- Trees
  - Acacia caffra — Common hook thorn
  - Acacia erioloba — Camel thorn
  - Acacia karroo — Sweet thorn
  - Acacia robusta subsp. Robusta — Ankle thorn
  - Acacia tortilis subsp. Heteracantha — Umbrella thorn
  - Buddleja saligna — Mock olive
  - Buddleja salvifolia — Sagewood
  - Celtis africana — White stinkwood
  - Combretum erythrophyllum — Bushwillow
  - Dais cotinifolia — Pompon Tree
  - Dombeya rotundifolia — Wild Pear
  - Ehretia rigida — Puzzle bush
  - Greyia sutherlandii — Natal Bottlebrush
  - Halleria lucida — Tree fuchsia
  - Heteromorpha arborescens var. abyssinica — Parsley tree
  - Kiggelaria africana — Wild peach
  - Kirkia wilmsii — Mountain seringa
  - Olea europea subsp. africana — Wild olive
  - Peltophorum africanum — African wattle
  - Podocarpus falcatus — Outeniqua yellowwood
  - Protea caffra — Highveld sugarbush
  - Salix mucronata subsp. woodii — Wild willow
  - Searsia burchelli — Karoo Kuni-bush
  - Searsia dentata — Nana-berry
  - Searsia erosa — Broom Karee
  - Searsia lancea — Karree
  - Searsia leptodictya — Mountain karee
  - Searsia pendulina — White Karee
  - Searsia pyroides — Firethorn
  - Tarchonanthus camphorates — Camphor bush
  - Ziziphus mucronata — Buffalo-thorn

- Shrubs and Perennials
  - Agapanthus africanus — Dwarf Agapanthus
  - Agapanthus orientalis — Agapanthus
  - Bauhinia galpinii — Pride-of-De Kaap

- Buddleja salviifolia — Sagewood
- Buddleja glomerata — Karoo Sage
- Clivia miniata — Clivia
- Coleonema spp — Confetti Bush
- Crocosmia aurea — Falling Stars
- Cassinopsis ilicifolia — Lemon thorn
- Diascia anastrepta — Drakensberg Twinspur
- Dierama pendulum — Hair Bells
- Dietes bicolor — Yellow Wild Irirs
- Dietes grandiflora — Fairy Iris
- Diospyros whyteana — Bladdernut
- Dodonaea angustifolia — Sand olive
- Euclea crispa — Blue guarri
- Euryops chrysanthemoides — Golden daisy resin bush
- Euryops pectinatus — Golden Daisy
- Felicia amelliodes — Blue Marguerite
- Felicia filifolia — Karoo Felicia
- Freylinia tropica — Waterberg honeybells
- Grewia occidentalis — Cross-berry
- Gomphostigma virgatum — River stars
- Helichrysum cymosum — Dune everlasting
- Hypoestes forskaolii — White ribbon bush
- Kniphofia praecox — Red-hot Poker
- Leonotis leonorus — Wild dagga
- Leucosidea sericea — Oldwood
- Mackaya bella — Forest Bell Bush
- Maytenus bachmannii — Silky Bark
- Maytenus undata — Koko tree
- Nylandtia spinosa — Tortoise berry
- Nuxia congesta — Common wild elder
- Pelargonium spp — Geraniums
- Plumbago auriculata — Cape Leadwort
- Plumbago capensis — Blue plumbago
- Polygala myrtifolia — September Butterfly bush
- Polygala virgatum — Purple Broom
- Rhamnus prinoides — Dogwood
- Rumohra adiantiformis — Seven Weeks Fern
- Scabiosa columbaria — Scabiosa
- Smodingium argutum — Rainbow Leaf
- Strelitzia reginae — Crane Flower
- Tecoma capensis — Cape Honeysuckle
- Watsonia spp — Watsonia
- Zantedeschia aethiopica — Arum Lily

- Architectural/Structural Plants
  - Aloe ferox — Cape bitter aloe
  - Aloe marlothii — Mountain aloe
  - Cussonia paniculata — Mountain cabbage tree
  - Melianthus major — Kruitjie-roer-my-nie

- Ground covers
  - Arctotis fastuosa — Marigold
  - Arctotis x hybrid ‘Flame’ — Flame Arctotis
  - Arctotis soechadifolia — Trailing Arctotis
  - Asparagus densiflorus ‘Sprengeri’ — Emerald Fern
  - Asparagus densiflorus ‘Meyersii’ — Foxtail Fern
  - Aptenia cordifolia — Red aptenia
  - Bulbine frutescens — Stalked Bulbine
  - Carpobrotus edulis — Sour Fig
  - Chlorophytum sp.

- Chlorophytum saundersii
- Cyneraria geyfolia
- Dierama pulcherrimum — Grass Bells
- Dietes bicolor — Dietes
- Dymondia margaretae
- Delosperma cooper — Free State Delosperma
- Gazania krebsiana — Gazania
- Gazania rigens — Trailing Gazania
- Geranium incanum — Carpet geranium
- Helichrysum cymosum — Dune everlasting
- Othonna carnosa var carnosa — Othonna
- Oxalis spp — Sorrel
- Stoebe vulgaris — Highveld snakeebush
- Tulbaghia violacea — Wild Garlic

- Bulbs
  - Agapanthus campoanulatus — Highveld agapanthus
  - Agapanthus inapertus — Lydenburg agapanthus
  - Agapanthus praecox subsp. minimus — Knysna agapanthus
  - Anthericum cooperi — Cooper's anthericum
  - Aristea ecklonii — Blue stars
  - Boophane disticha — Century plant/Tumbleweed
  - Brunsvigia natalensis — Natal candelabra lily
  - Bulbine abyssinica — Bushy Bulbine
  - Chlorophytum bowkeri — Giant chlorophytum
  - Crinum bulbispermum — Orange River lily
  - Crocosmia aurea — Falling stars
  - Eucomis autumnalis — Common pineapple lily
  - Gladiolus aurantiacus — Sidvana gladiolus
  - Hypoxis colchicifolia — Broad-leaved stargrass
  - Kniphofia caulescens — Lesotho red-hot poker
  - Moraea alticola — Yellow moraea
  - Nerine angustifolia — Ribbon-leaved nerine
  - Tulbaghia leucantha — Highland wild garlic
  - Watsonia confuse — Large Natal watsonia
  - Zantedeschia aethiopica — White arum lily

- Succulents
  - Aloe arborescens — Krantz aloe
  - Aloe ferox — Cape bitter aloe
  - Builbine abyssinica — Bushy Bulbine
  - Carpobrotus edulis — Sour fig
  - Cotyledon barbeyi — Bushveld pig's ears
  - Crassula acinaciformis — Aloe crassula
  - Crassula dependens — Trailing crassula
  - Crassula multicava — Fairy crassula
  - Delosperma ashtonii — Ashton's Delosperma
  - Kalanchoe luciae subsp.luciae — Red-leaved kalanchoe

- Aquatic Plants (MARGINAL AQUATICS)
  - Cyperus prolifer — Dwarf papyrus
  - Cyperus textilis — Mat sedge
  - Cyperus papyrus — Papyrus
  - Gomphostigma virgatum — River stars
  - Gunnera perpensa — Cape gunnera
  - Kniphofia linearifolia — Common mash red-hot poker
  - Phygelius aequalis — River bells
  - Salix mucronata — Cape willow
  - Zantedeschia aethiopica — Arum lily

(FLOATING AND SUBMERGED AQUATICS)

- Nymphaea nouchali var. caerulea* — Cape water lily

- Indigenous Ornamental Grasses
  - Melinis repens subsp. Repens — Natal red top
  - Melinis nerviglumis — Steenbok grass
  - Miscanthus capense — Thicket grass
  - Miscanthus junceus — Vlei-grass
  - Themeda triandra — Red grass

2.7 approved exotic plant list

- Trees
  - Betula alba — Silver Birch
  - Caesalpinia ferrea — Leopard tree
  - Platanus acerifolia — Plane Tree
  - Quercus robor — English Oak

- Shrubs and Perennials
  - Gaura lindheimeri — Lindheimer's Beeblossom
  - Hemerocallis species — Daylily

- Ornamental Grasses
  - Carex grass species — (no variegated species)
  - Ophiopogon species — Lilyturf

NOTE: The above mentioned and any other exotic plants must be submitted with the landscape development plan to the SDRC for consideration.

2 IT | COMMUNICATION INTRODUCTION

It's a known fact that the success of an IT and Communication network largely depends on the successful implementation of the “Triple Play Services” inside the residential premises. It’s crucial that the network termination and distribution design is well-thought-out and as refined as necessary before the various services (Voice, Video and Data) are activated. We refer you to the detailed IT and Communications pack, available from your Architect or from the Serengeti Sales office, to ensure that the design and installation is completed to the required specification to give you the maximum benefit of the various services available to the homeowner.

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OVERVIEW

S.A. Digital Villages has been appointed by Serengeti Golf & Wildlife Estate as the Communications and Information Technology Consultants to install the infrastructure and to supply and operate the full range of World Class Communication services as described below.

These services are described in some detail below but to summarize the services that Serengeti is providing for its homeowners, we will be installing a fibre optic connection to each and every home at Serengeti. This Fibre Optic connection, which connects each home to the data centre at the Estate Management Complex, provides the network to enable us to provide a whole range of services.

These services include:

- A Telephone in your home – Free calls within Serengeti
- A lightning fast, always on Internet Connection with various packages to choose from
- The Serengeti Portal – this is a community information portal with the latest community news and related information regarding the estate, including links to all the relevant estate information, billing portal, Visitor announcement system, frequently asked questions, Estate News, Key contact information, Picture and Video Gallery and much more …

It is with these services in mind that we encourage all homeowners to embrace the technology provided and to design their homes to take full advantage of the services. SADV will provide the backbone for these services that will be terminated in an **ONU** (Optical Network Unit) Box situated in the IT distribution box located on an inside wall in your garage *(as indicated in Figure 1 below)*. The homeowner will need to design their internal cabling layouts to take these services and distribute them into the home.

SA Digital Villages provides it's services to a device in the IT Box which we call our network edge or services demarcation point. This is where the service provider's responsibility ends with regards to delivering the service to the home. It is the homeowner's responsibility to extend these services into the home and to consider where and how many points to place in the home.

SADV will provide 2 voice ports and 1 Data ports at the services demarcation point (IT Box) from where the resident can extend the services into the home. Cabling for a home network cannot be cabled directly from the ONU due to its limited capacity. The network must be cabled from your internal services distribution point as described in figure 1. Your installer can install a network switch at your services distribution point to increase the number of data ports in the home if required.

Some users prefer fixed line connections which are faster and more reliable than any wireless connections, and these users extend these connections into their homes to deliver their voice and data services.

Other users find the convenience of installing a wireless network and Cordless DECT Handsets very attractive which provides a great mix of convenience and flexibility in distributing the services into the home. However, in order to effectively deliver these services you would need to ensure that the signal coverage from these devices in your home is adequate. We would therefore highly recommend that you extend your fixed line connections from the IT Box via your internal services distribution point (figure 1) to centralised points within your home from where you can connect your wireless devices. This would provide the best wireless coverage for all your devices in the home to provide the best user experience.

Note that the fibre we install is completely passive, which means that if you elect to install a power backup solution or battery backup in your home and you provide one of these feeds to the IT Box for our equipment, then your voice and data services will not be disrupted in the event of a power failure within the estate. Note that this would only be true if you also provided this battery backup feed to any other devices you may have installed in your home.

We highly recommend using qualified IT Cabling and Wireless installers to plan and install these services into your home and to consult your Electrical engineer with regards to the planning any of the power backup requirements mentioned above.

Please read and familiarise yourself with this document. SA Digital Villages provides a free 1 hour session with all homeowners. It is mandatory that all homeowners book for this session prior to starting to build their homes. The session will inform you on the various options and procedures that need to be followed during the building process and to enable us to commission your services once installed.

The following Serengeti Residents IT Check List must be followed:

Item	Description	Check
1	Received IT Guidelines	
2	Booked 1 Hour Session with SADV	
3	Request IT Box from SADV	
4	SPOA invoices Resident for Initial IT fee	
5	Builder digs trench for Fibre tube from Road curb to IT Box	
6	Builder requests SADV Fibre Tube installation into trench	
7	Resident gives 3 weeks notice prior to Occupation Date	
8	Resident confirms all Telephone, Data Cabling is installed	
9	Resident chooses SADV Service Package	
10	SADV installs fibre to IT Box	
11	SADV Install CPE Equipment into IT Box	
12	SADV Test Fibre levels	
13	SADV Test Phone Lines	
14	SADV Test Internet Connection	
15	SADV Commissions Residents' Services (Go-Live)	
16	SADV sends SPOA final completion certificate which is required and forms part of the residents Occupation Certificate	
17	SPOA invoices Resident for final IT commissioning fee	

There are many options to the homeowner with regards to cabling and deploying services into the home. We have depicted two possible scenarios below purely for reference purposes.

Option 1:

The first option is to install a structured cabling solution in the home to provide the Voice, TV and Data Points. This requires you to identify all the Telephone, PC (Data) and TV Points in your home. The structured cabling is then installed in your home as shown in the document below. Note that the RF cabling must feed from the central DSTV decoder location in your home to the other TV Locations (Consult your DSTV Installer in this regard). All the Data and Voice cabling is terminated to a services distribution point and then on to the IT Distribution box as shown in Figure 1 below.

We strongly advise the homeowner to install as many of these “conduits” as possible during the building process, even if the cabling will only be installed at a later date, or by the next Homeowner. The initial cost of at least installing the conduits is very low compared to the difficulty and cost in trying to retro fit this cabling.

This will also allow the homeowner maximum flexibility when designing the placement of all the Telephone, TV and Data Points.

Option 2:

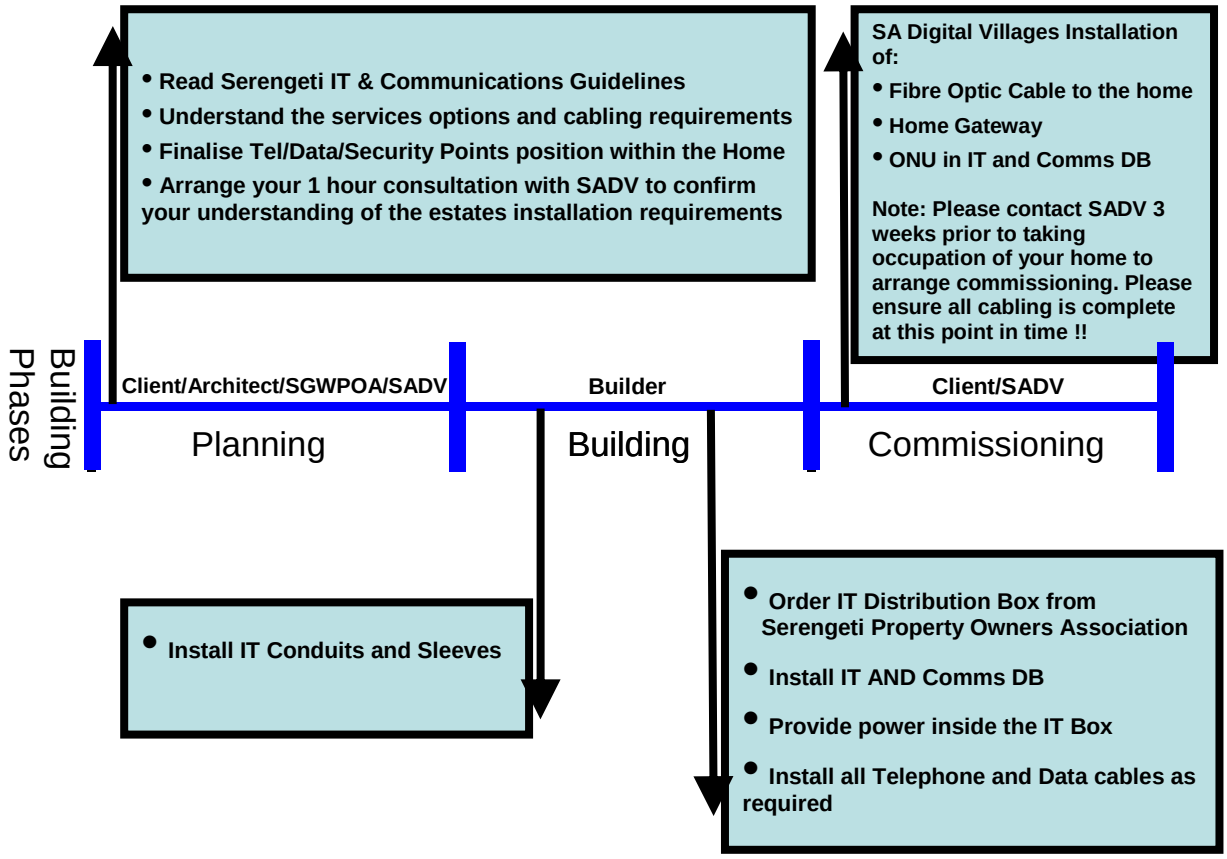
The second of the two options is if the homeowner would like to install a full home automation system.
Imagine your home lighting up as you walk through the front door. The alarm disarming itself. The temperature set precisely to your personal preference. Your favourite music playing in every room, with crystal clear digital sound. And when you leave again each morning, at a simple touch of a button, the security system reactivating itself, the temperature reverting to daytime ambience and unneeded lights turning off…

This is one possible scenario in the unbelievable but very real world of Home automation where whole house automation systems place the ultimate in comfort, luxury and convenience at your fingertips.

All of the basic IT and Communications guidelines explained in option 1 still apply. However, for this full home automation solution, you would require some specialist input from a Home Automation Supplier, of which there are many available in the market from which to choose.

Don’t forget to take the conduit requirements for your alarm system into consideration when doing your conduit layouts !

IT & Communications Installation Procedure Timelines and Triggers



Once-off Setup Costs

There are a number of items that are compulsory and are required to be installed at the time of building your home in order for the services to be provisioned:

- Standardized “IT Distribution Box” to house the equipment provided
- The supply and installation of the fibre optic cable from the road curb to be terminated inside your “distribution box” as described above.
- The installation and commissioning by SADV of an **ONU** connecting your home to the Serengeti Infrastructure.
- The supply, installation and commissioning of a Home Gateway to connect to the SADV installed **ONU**.
- A one hour consultation with the home owner and/or architect to give advice and recommendations on any of the items described above.

These fees for the above, as indicated in annexure 1, are collected in the following manner:

1. **Stage 1** commissioning fee is charged to the Serengeti property owners levy account at the point in time when the builder collects the IT Box from the SPOA during the building process as indicated in the timeline above.

2. **Stage 2** and final commissioning fee is charged to the Serengeti property owners levy account at the point in time when final commissioning of services has been completed.

Please note that SADV and SPOA reserve the right to revise these prices from time to time.

SA Digital Villages reserves its' right to gain access to the IT Distribution Box in the garage for maintenance purposes, at a time convenient to the Home owner and where access has been prearranged with the homeowner. Once installed, the IT Distribution Box, the SA Digital Villages ONU and Home Gateway become permanent fixtures of the House and cannot be removed when the home is sold. Note that it is the responsibility of SA Digital Villages to ensure that services to the IT Box are maintained.

The cabling and distribution of services from the IT box into the home is the sole responsibility of the homeowner who, at his own choice may appoint the various qualified installers to install these services. As indicated in the SADV standard terms and conditions, customers are liable for a callout charge if a technician is dispatched to a reported fault that is proved to be associated with the customers own equipment and cabling.

Homeowners are required to ensure that the SADV installed equipment is covered by their building insurance in the unlikely event of damage. Please note that Serengeti Golf & Wildlife Estate is located in an area with high lightning activity during summer. The approximate replacement cost of this equipment is R12,000.

If you have any questions with regard to any of the above, please do not hesitate contact us:

Tel: 011 552 7103 or Email support@sadv.co.za

Annexure 1 (once-off setup costs)

This document sets out the once off fees as described in IT and Communications Guidelines above;

Stage 1 IT commissioning fee: R 1750 Incl

Stage 2 IT commissioning fee: R 3250 Incl

1. Installation Guidelines

1.2. Satellite Dish and Decoder Installations

Please refer to the Architectural Guidelines for the type, colour and approved locations of the satellite dish installation at your home. A list of accredited Satellite Dish installers can be found on the Multichoice website. The general reticulation of all Video/TV cabling must be cabled back to the Services Distribution Point were the primary DSTV decoder is located within the home. Please note that specialist input is required for the cabling of HD and Extra View Decoders. Additional splitters and signal boosters may also need to be installed by your installer depending on the length of your cables and your specific AV requirements.

1.2. Cabling Method

Cabling for a home network cannot be cabled directly from the ONU due to its limited capacity. The network must be cabled from your internal distribution box as described above and in figure 1.

1.3. Telecommunications and Data Outlets

The positioning of VOICE/DATA outlets will be according to the customers own requirements within his home. It is common practice to place at least One Voice, One TV and One Data point in each bedroom. The average for the Lounge and Living area would be to have at least 4 points for Voice/Video and Data. Other areas that should be considered for a combination of the points would be the Entertainment area, Pool area and even perhaps the Kitchen.

1.4. IT and Communications Distribution Box and Service Distribution Points

1.4.1. General

The IT and Communications distribution box is an enclosure used to house the SA Digital Villages fibre optic equipment. **(see figure 3.)**

The IT and Communications Box dimensions are 610mm (H) x 355mm (W) x 140mm (D)

Please ensure that cables terminating in the IT Distribution Box are cut to the correct length.

1.4.2. IT Distribution box Location

The distribution box should be located on an inside wall within your garage as per figure 1 unless the cable distance limit of 90 meters between the IT Box and any VOICE/DATA outlet is likely to be exceeded.

The IT Box should not be located within 1 meter of likely sources of electromagnetic interference (EMI), for example:

- electrical switchboard or electricity supply meters;
- fluorescent lights and halogen down-lights;
- transformers;
- motors or generators (e.g. a work bench where electric drills, jigsaws, etc. maybe used);
- refrigerators or freezers; and
- radio transmitters.

When installing the IT Box please ensure any cable entry holes are open and are arranged or sealed to minimise the entry of moisture from the wall cavity.

1.4.3. Power Outlet

One 220/240 V single power outlet (socket-outlet) should be provided inside the distribution box. (See figure 3.)

1.4.4. Backup Power UPS and Battery

Please note that should you wish to have Voice and Data services operational during power outages, you will need to install your own Backup Generator and/or UPS in your home and ensure that backup power is provided to the 220/240 V single power outlet in the SADV IT Box. Note that no UPS or Batteries are to be installed inside the IT box.

1.4.5. Earthing Requirements

Where the electrical earth electrode is near the IT Distribution Box and is accessible, the SADV installer will run an earth bonding conductor between the ONT and the electrode. Otherwise, the builder's electrician is required to run a 6 mm^2 green/yellow earth bonding conductor from the earthing bar in the electrical DB enclosure to the IT Distribution Box location via a CET. The earthing conductor does not need to be installed in a conduit.

1.5. Testing

All category 5/5e cabling should be tested to Class D requirements.

2. INSTALLATION OF INTERNAL EQUIPMENT

2.1. Location

The ONU will be installed inside the IT distribution box or enclosure. Please ensure easy access to the distribution box at all times for installation and maintenance purposes.

2.1.1. General

Please ensure the location of the distribution box is away from any source of moisture. If the distribution box is mounted on the inside of one of the outer walls, make sure that adequate damp proofing has been installed in this area.

2.1.2. Combined Enclosure

The use of a suitable combined communications enclosure is not recommended. It is imperative that the homeowner use this standardized enclosure for the reason that it simplifies any access, installation and maintenance that would be required on this equipment. These enclosures have been approved and are available from the SPOA.

Figure 1 (Typical Home Networking Cabling Layout double storey)

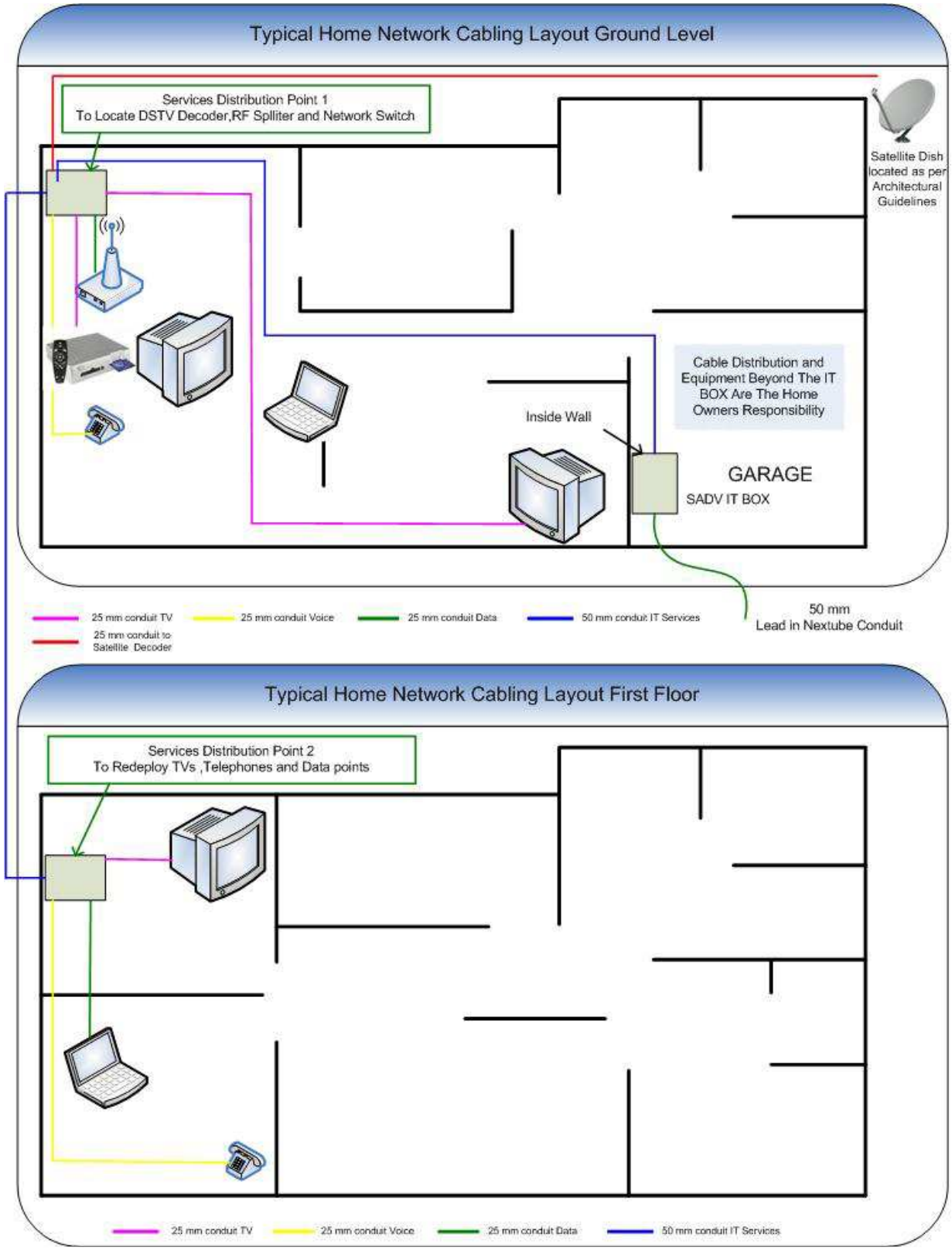


Figure 2 (Building Entry conduit positioning for IT & Communications DB)

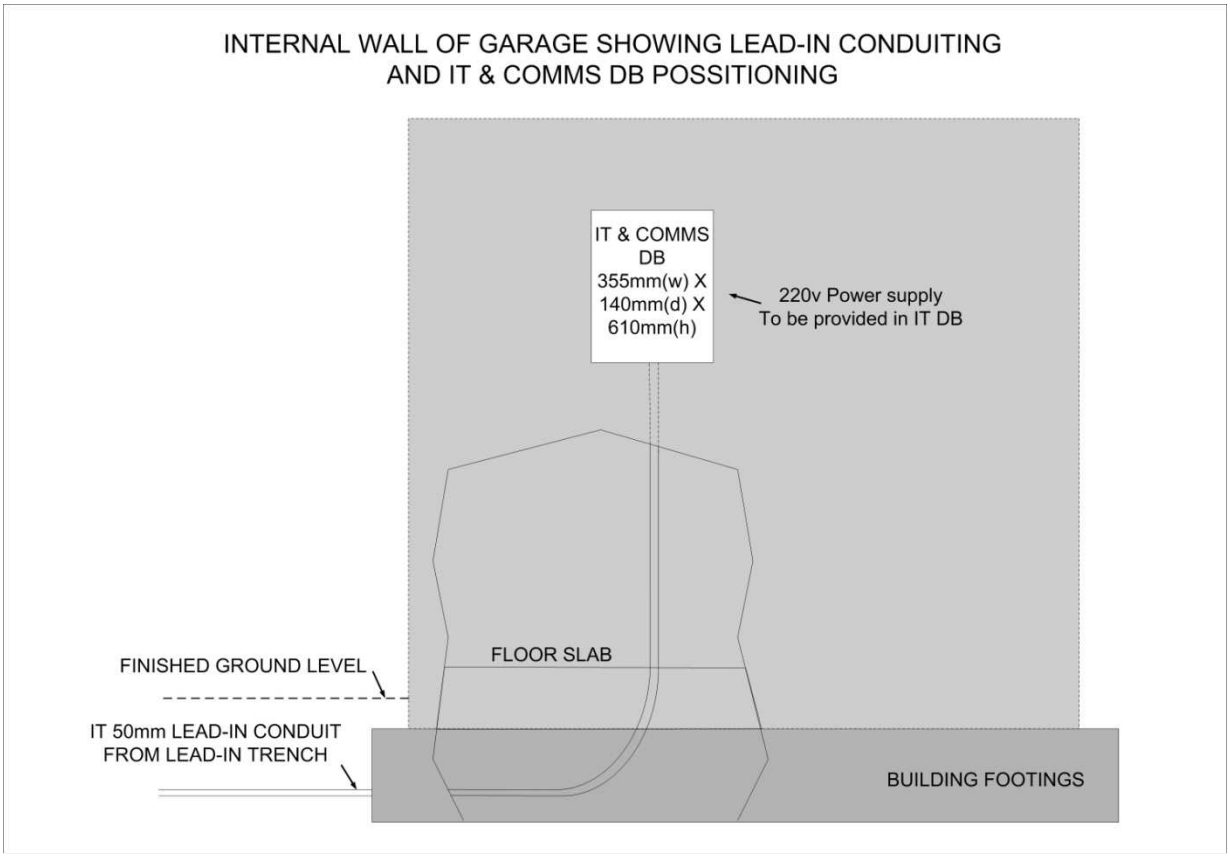
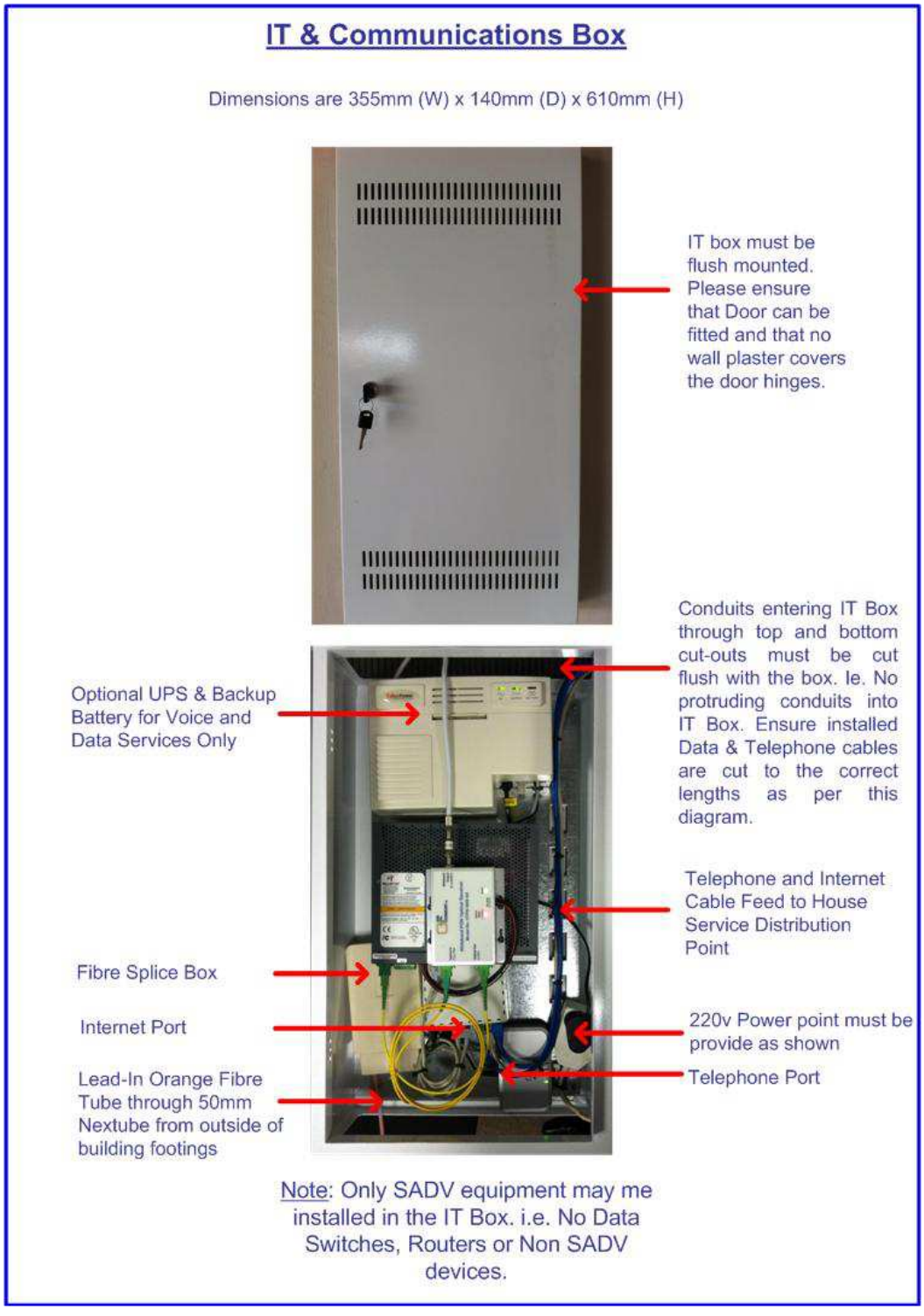


Figure 3 (IT & Communications Distribution Box Layout)



SA DIGITAL VILLAGES provides residential and commercial customers with the infrastructure and services required to enable them to enjoy the full experience of digital living, taking full advantage of the latest technologies, thereby ensuring that their investment is able to take advantage of all the latest digital advances in technology and services for many years to come.

MANDATORY CONTROLS

DEVELOPMENTS ON DOLOMITE LAND

Dolomite Precautionary Measures

Industry Standards Applicable to Developments on Dolomite Land:

- South African National Standards (SANS) 1936: Parts 1 to 4 (in draft)
- South African National Standards: The Application of the National Building CodE: sans 10400 Part A: General principles and requirements and Part B: Structural Design (2004)
- National Home Builders Registration Council (NHBRC): Parts 1 to 3 Rev. 1, February 1999
- PW344: Public Works: Appropriate Development of Infrastructure on Dolomite: Manual for Consultants (September 2010)

INDUSTRY STANDARDS APPLICABLE TO DEVELOPMENTS ON DOLOMITE LAND
○ South African National Standards (SANS) 1936: Parts 1 to 4 (in draft). ○ South African National Standards: The Application of the National Building Code: SANS 10400, Part A: General principles and requirements and Part B: Structural Design (2004). ○ National Home Builders Registration Council (NHBRC): Parts 1 to 3, Rev. 1, February 1999. ○ PW344: Public Works: Appropriate Development of Infrastructure on Dolomite: Manual for Consultants (September 2010).

INFORMATION REQUIRED BY THE DRMS OF EMM FROM THE DEVELOPER/OWNER/BUILDER	INFORMATION SOURCE
1.Dolomite hazard zonation and NHBRC D-designation	• Developer (e.g.in a large estate or security complex) • NHBRC • Engineering geologist (refer to list on SAIEG website) • Council for Geoscience (012 841-1911) • EMM GIS (011 999-4666, Pilusa Mashamaite)
2. NHBRC approval document	• NHBRC • Developer
3. Council for Geoscience approval letter <u>on all residential developments</u>	• Council for Geoscience (012 8411911, Greg Heath/ Tharina Oosthuizen)
4. From the Engineer 4.1. Appointment Letter Engineer	• Appointed Engineer & Architect

4.2. Foundation design and specifications in accordance with requirements on specific D-designation(s). 4.3. Engineer's certification on all building plans	
5. Wet services specifications (to be indicated on the plan) 5.1. Sewer layout up to EMM connection, including material specifications and diameter. 5.2. Water layout (below surface) up to EMM connection, including material specifications and diameter. 5.3. Stormwater layout, including relevant specifications and indication of surface water run-off.	• Appointed Engineer & Architect In accordance with PW344 & SANS 1936-Part 3 (draft, 2012) certified by engineer on Building Plan • Stormwater: Retention & attenuation –distances: D2: 20m in all instances D3: 20m from commercial/industrial & 30m other instances
6. Liquid retaining structures (i.e. swimming pools & water features) 6.1. Specifications on engineering design 6.2. Proof of water tightness 6.3. Distance from any structures	• PW344 & SANS 1936-Part 3 (draft, 2012) • Amendments in terms of distance: D2 & D3 – 5m D2: <5 but >2m: Rigid double shell D3 <5m: Integr. in rational design or double shell (>2m)

NOTE:

The following conditions have to be adhered to when submitting Building Plans on dolomite land:

1. **Dolomite stability investigations are required on the following developments:**
   All new developments located within the 0 -100m dolomite land map, including:

   - Second dwellings
   - Sub-divisions
   - Townships
   - Townhouse complexes or estates etc.
   - Footprint investigations for all industrial and commercial structures (new and additions)

   This should comply with SANS 1936 specifications.

2. **Dolomite stability investigations are not required on:**

   - ***Additions* at existing residential structures**, subject to the use of a reinforced raft foundation and the appointment of an engineer to certify the foundation design is in accordance with NHBRC D3 designation. Alternatively D2 conditions need to be proven through drilling.
   - ***Existing townships (high density areas) where access is not possible for footprint investigations***, subject to foundation and wet service design in accordance with D3 conditions, including rational design and appointment of an engineer to certify the foundation design. Alternatively D2 conditions need to be proven through drilling.
   - All **new individual isolated stands for single residential dwellings within existing developed townships**, subject to:
     - NHBRC requirements for enrolment purposes (**Note**: NHBRC may require a dolomite stability investigation for enrolment).
     - Foundation design in accordance with NHBRC and SANS 1936 D3 designation (i.e. rational design reinforced concrete raft foundation).
     - Design of wet services in accordance with NHBRC D3 designation and SANS 1936-Part 3.
     - Appointment of an engineer to certify the foundation design.

1. plan submission processes and requirements

Should any clause stated in this guideline document be in any way regarded as directly contrary to the National Building Regulations, the National Building Regulations will take precedence.

Any new work, alterations and additions or even external re-painting on a property will be subject to review by the Serengeti Design Review Committee (SDRC) which will meet on a regular prearranged basis and report and recommend to the Property Owners Association executive on submitted proposals**.** Records of all Serengeti Design Review Committee meetings will be kept and a record of all approved building, and landscape development plans will be kept by the Estate Manager. The process and requirements of the Design Review Committee will be as follows:

prior to building plans and operations being considered for approval

- Submissions for new buildings:

  A non-refundable **Architectural Review Fee** of R4560.00 (Incl VAT) is payable to The Serengeti Golf and Wildlife Estate property Owners Association upon first submission of building plans to facilitate the role of the SDRC as guardians of the estate vision to manage and maintain the vision and associated investment value of the estate into the future.

  This fee will include: Stage 1 Sketch Plan review
  Stage 2 Working Drawing review
  5 x estate guideline compliance inspections during construction
  1 x final inspection for occupation

  A Serengeti Stage 1 and Stage 2 checklist with all relevant material attached and all necessary boxes ticked must accompany these respective submissions.

- Re-submission:

- In the event that plans are declined and need to be re-submitted, a first re-submission fee of R1368.00 (Incl VAT) is payable. Thereafter, any consultation or plan review with regard to non-compliance will be reviewed at a fee of R1140 (Incl VAT) per hour of which the first hour of portion thereof will be charged fully.

- Deviation submissions:

  Any change intended to be made to the original SDRC and Local Authority approved architectural plans during the construction process must be submitted to the SDRC for scrutiny as a deviation submission PRIOR to effecting the intended change. All deviations must be highlighted in red and hatched and / or clouded for legibility.

  A non-refundable **Architectural Review Fee** of R1140.00 (Incl VAT) is payable to The Serengeti Golf and Wildlife Estate property Owners Association to review this submission.

- As-built submissions:

  All changes made to the original SDRC and Local Authority approved architectural plans during construction must be represented in an “as-built” set of drawings and must be submitted to the SDRC for scrutiny. All deviations from the previously approved plans must be highlighted in red and hatched and / or clouded for legibility.

  A non-refundable **Architectural Review Fee** of R1368.00 (Incl VAT) is payable to The Serengeti Golf and Wildlife Estate property Owners Association to review this submission.

- Alteration and addition submissions:

  Any intended building work to be done to a completed structure requires a ful set of drawings to be submitted to the SDRC for scrutiny as well as to the Local Authority. All alterations and additions to the previously approved plans must be highlighted in red and hatched and / or clouded for legibility.

  A non-refundable **Architectural Review Fee** of R2280.00 (Incl VAT) is payable to The Serengeti Golf and Wildlife Estate property Owners Association to review this submission.

- Landscaping submission

Please note, Serengeti stage 2 approval is valid for 1 year from the approval date, building needs to commence within this 1 year validity period to avoid resubmission.

A **Landscaping Review Fee**.....

Prior to construction work being approved to commence, a refundable **Building Performance Deposit** of .....must be paid to the Serengeti Golf and Wildlife Estate Property Owners Association to be held in trust (free of interest). This deposit amount will be used in event there is a breach in conduct in any way by the contractor.

Once working drawings have been approved by the SDRC, and are ready to be submitted to the Local Authority, a **Ramp Fee** (amount to be determined) will be payable for the construction of the kerb and ramp from the road to meet the erf driveway.

These payments are subject to an annual escalation of minimum 10% and may be reviewed at any time at the sole discretion of the Serengeti Golf and Wildlife Estate Property Owners Association.

The Building Performance Deposit will be released subject to the submission to the Serengeti Golf and Wildlife Estate Property Owners Association of the following documentation:

- Local Authority Approved plans, Completion Certificate and Occupancy Certificate
- Practical Completion Certificate from the SPOA
- The SPOA appointed agent's Certificate of Completion

Refunds will be made within 10 working days once the above-mentioned documentation has been correctly completed and submitted. The SHOA reserve the right to prevent occupation should this documentation not be correctly provided and adhered to. The SPOA require a once-off fee of ..... for the supply of a builder's board on site. Detail of board is in the Contractors Code of Conduct. This fee is subject to the prevailing steel prices and can be changed if and when required.

notice of intention

A notice of intention to do new work, outlining the proposed work, must be submitted to the Estate Manager at least two weeks prior to the submission of proposed work plans (as set out below) to enable a site inspection to establish a clear understanding of the context of the proposal.

submission procedure

Architectural plans and landscape plans, by an accredited estate architectural and landscape professionals, sufficient to fully describe the proposal and show compliance with the guidelines will be submitted to the Serengeti Golf and Wildlife Estate Home Owners Association constituted Design Review Committee at the Estate Management Complex (EMC) by latest 5pm on the Wednesday prior to the scheduled Friday Serengeti Design Review Committee review meeting. The SDRC convene every second Friday for the purpose of plan scrutiny and a calendar with the dates the SDRC will meet are available from the offices of the SPOA at the EMC at Serengeti.

Plans will be required to be submitted in 3 (three) stages:

- Stage 1: Sketch Plans
- Stage 2: Working Drawings
- Stage 3: Landscape Design

All review meetings are closed to all applicants WITHOUT EXCEPTION. Any consultation required with the SDRC review panel will be charged for at the abovementioned hourly rate.

stage 01 - sketch plans

One original of the full set of sketch plans as well as the completed SDRC Sketch Plan Checklist signed by the owner and architectural professional must be submitted.

These detailed checklists set out all items that must be clearly shown on all plan submissions for Stages 1 and 2 and are available from the office of the SPOA at the EMC at Serengeti.

Please note that if the minimum requirements as stipulated on the front page of the SDRC checklist are not met the plans will not be accepted or reviewed by the SDRC, only complete submissions will be evaluated. Please see the relevant checklist for these minimum requirements.

Please collect a “Vital Information” CD from the SPOA office at the EMC. This CD has all the information necessary for an architectural professional to commence a competent set of documentation such as: the General Plan; full contour survey; all service reticulation and connection points; all landscaping etc

This information is essential in order for the SDRC to assess the plans in relation to the infrastructure provided. A1 size drawing format is preferable over A0 wherever possible.

stage 02 – working drawings

Once Stage 01 plans have been approved by the Serengeti Design Review Committee, one original detailed working drawing set together with the signed and completed SDRC Stage 2 checklist must be submitted for scrutiny. Drawings to be submitted to the Local Authority for approval must carry the stamp of approval of the SDRC. The Local Authority will under no circumstances receive any Serengeti plans without this stamp.

As previously, if the minimum requirements as stipulated on the front page of the SDRC checklist are not met the plans will not be accepted or reviewed by the SDRC, only complete submissions will be evaluated. Please see the relevant checklist for these minimum requirements.

stage 03 – landscaping, storm water management drawings

to be completed by in-site landscape architects

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.....

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.....

general

Once building plans have been approved by the local authority a hard copy and digital copy of the approved plans must be submitted to the Estate Manager for record purposes in order to to manage and maintain quality control throughout the development process.

Any dispute whatsoever regarding these development guidelines will be taken to arbitration in terms of the Serengeti Property Owners Association Constitution.

Occupation of the premises will only be granted once the Estate Manager or member of the SDRC has conducted the final inspection for occupation and the property owner has produced an Occupation Certificate from the Local Authority.

2. construction activity and building control

See Builders Code of Conduct document

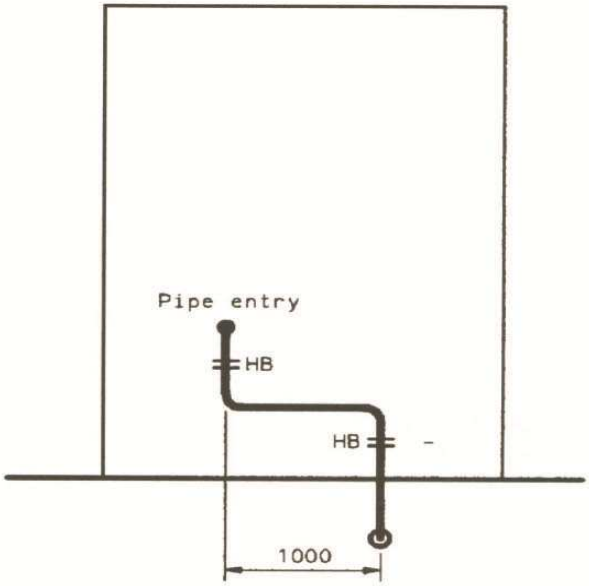
PRECAUTIONARY MEASURES

Dolomite precautionary measures with relation to the construction of houses.

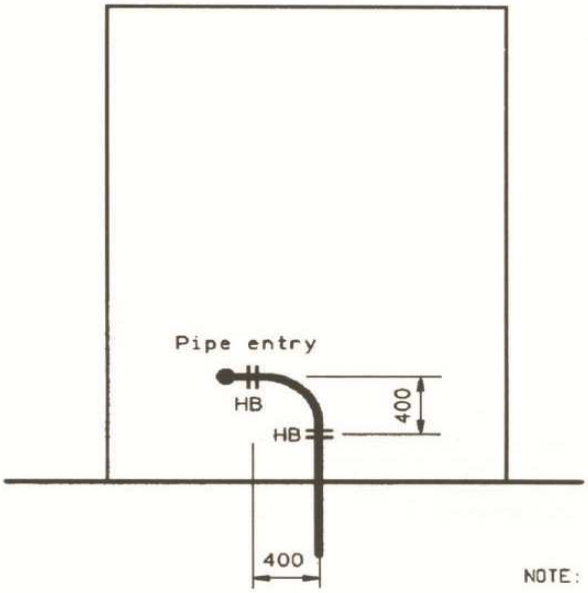
For the construction of houses in the Serengeti Golf and Wildlife Estate it is important the following precautionary measures be implemented:

- The site and surrounding area shall be shaped to permit the ready drainage of surface water and to prevent ponding.
- Drainage ports should be incorporated in boundary walls to permit the passage of surface water runoff.
- Natural ponds and water courses located within 10m of any structure shall be rendered impervious.
- Backwash and other water from swimming pools, shall be discharged into either the stormwater or drainage systems as required by the local authority.
- Water pipe entries into the building wall shall be above ground level.
- All sewer and water pipes and fittings shall be provided with flexible, watertight joints.
- No plumbing and drainage pipes shall be placed under floor slabs, as far as is practicable.
- The fall of the trenches shall be away from the buildings.
- The selection of piping materials shall take cognizance of corrosion (external + internal).
- Wherever practical, service trenches shall not be excavated along the length of housing units within the first 3.0m beyond the perimeter of such units.
- Down pipes, if provided, shall discharge into concrete lined drainage channels or onto an apron slab, which discharge the water at least 1,0m away from buildings.
- Where guttering is not provided, a 1,0m wide apron slab shall be provided.

- The ground immediately against the buildings shall be shaped to fall in excess of 75mm over the first 1,0m beyond the perimeter of the building, from where it shall drain freely away from housing units. Apron slabs, where provided shall have the same the fall.
- Water is triggering mechanism, in the majority of cases, of distress in dolomitic / limestone areas. It is therefore imperative that the concentrated ingress of water into the ground be avoided at all times, including the construction period.



RIGID / SEMI FLEXIBLE PIPE



FLEXIBLE PIPING

NOTE:

HB - Holderbats.

Clamp type holderbat not to be fully tightened to allow for movement.

Figure S3
Water pipe entry points

CONCLUSION

This design and development guideline document is a working document that sets out the principles in order for quality and value to be maintained. These guidelines will continue to grow and become more defined throughout the design and construction processes and thereafter at the Developer and Design Review Committee's discretion. The provision, implementation and continued adherence to these guidelines is in the joint interests of the Developer, the professional team, the property owners and residents of this scheme, with a view to providing a living environment of the very highest calibre, therein maintaining the ongoing experiential and monetary value of this estate.