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Application Number: LU/13111
Our File Reference Number: Erf 239, Johannesdal
Your Reference Number:
Enquiries: Ulrich von Molendorff
Contact No: 021 808 8682
Email address: Ulrich.Vonmolendorff@stellenbosch.gov.za

PER E-MAIL: [redacted]

Sir/Madam

APPLICATION FOR AMENDMENT OF CONDITIONS OF APPROVAL IN TERMS OF SECTION 15(2)(h) OF THE STELLENBOSCH MUNICIPAL LAND USE PLANNING BYLAW, 2015: ERF 239, JOHANNESDAL

1. The above application refers.

2. The duly authorised decision maker has decided on the above application as follows:

2.1 That the application on Erf 239, Johannesdal in terms of Section 15(2)(h) of the Stellenbosch Municipal Land Use Planning By-Law, 2015 in order to:

2.1.1 Amend the architectural guidelines, in order to be consistent with the parameters of the Conventional Residential Zone applicable to a group housing development as per the Stellenbosch Zoning Scheme By-Law, 2019.

BE APPROVED in terms of Section 60 of the said Bylaw and subject to conditions of approval.

2.2 The approval is subject to the following conditions imposed in terms of Section 66 of said Bylaw:

2.2.1 The approval only applies to the application under consideration and shall not be construed as authority to depart from any other legal prescriptions or requirements from Council or other legislation or Bylaws or Regulations that may be applicable.

2.2.2 The approval granted shall not exempt the applicant from complying with any other legal prescriptions or requirements that might have a bearing on the proposed use.

2.2.3 The development must be undertaken in accordance with the Architectural Design Guidelines, dated August 2021, attached as **Annexure B.**

2.3 The reasons for the above decision are as follows:

2.3.1 The application will have no adverse effects on surrounding properties as it will not be seen to be out of character with its surroundings as several similar developments in the surrounding area have been approved with similar development parameters as is being applied for.

3. You are hereby informed in terms of section 79(2) of the Stellenbosch Municipal Land Use Planning Bylaw, 2015, of your right to appeal the above decision to the Appeal Authority within 21 days from the date of notification of the above decision. Please note that no late appeals or an extension of time for the submission of appeals are permitted in terms of Section 80(1)(a) of the said By-Law.

4. Appeals must be submitted with the prescribed information to satisfy the requirements of Section 80(2) of the said By-law, failing which the appeal will be invalid in terms of Section 81(1)(b) of the said By-Law. The following prescribed information is accordingly required:

(a) The personal particulars of the Appellant, including:

(I) First names and surname;
(II) ID number;
(III) Company of Legal person's name (if applicable)
(IV) Physical Address;
(V) Contact details, including a Cell number and E-Mail address;

(b) Reference to this correspondence and the relevant property details on which the appeal is submitted.

(c) The grounds of the appeal which may include the following grounds:

(i) that the administrative action was not procedurally fair as contemplated in the Promotion of Administrative Justice Act, 2000 (Act 3 of 2000);

(ii) grounds relating to the merits of the land development or land use application on which the appellant believes the authorised decision maker erred in coming to the conclusion it did.

(d) whether the appeal is lodged against the whole decision or a part of the decision;

(e) if the appeal is lodged against a part of the decision, a description of the part;

(f) if the appeal is lodged against a condition of approval, a description of the condition;

(g) the factual or legal findings that the appellant relies on;

(h) the relief sought by the appellant; and

(i) any issue that the appellant wishes the Appeal Authority to consider in making its decision;

(j) That the appeal includes the following declaration by the Appellant:

(i) The Appellant confirms that the information contained in the subject appeal and accompanied information and documentation is complete and correct

(ii) That the Appellant is aware that it is and offence in terms of Section 86(1)(d) of the said By-Law to supply particulars, information or answers in an appeal against a decision on an application, or in any documentation or representation related to an appeal, knowing it to be false, incorrect or misleading or not believing them to be correct.

5. Appeals must be addressed to the Municipal Manager and submitted to his/ her designated official by means of E-mail at the following address: landuse.appeals@stellenbosch.gov.za

6. Any party (applicant or other) who lodges an appeal must pay the applicable appeal fee in terms of the approved municipal tariffs and submit the proof of payment together with the appeal. The **LU** Reference number on this correspondence, or the applicable Erf/ Farm Number must be used as the reference for the payment of the appeal fee.

7. The approved tariff structure may be accessed and viewed on the municipal website (https://www.stellenbosch.gov.za/documents/finance/rates-and-tariffs) and the banking details for the General Account can also be accessed on the municipal website (https://www.stellenbosch.gov.za/documents/general/8314-stellenbosch-municipality-banking-details-1/file).

8. An applicant who lodge an appeal must also adhere to the following requirements stipulated in terms of section 80(3) to (7) of the said By-law:

(a) Simultaneously serve the appeal on any person who commented on the application concerned and any other person as the municipality may determine.

(b) The notice by the applicant must invite persons to comment on the appeal within 21 days from date of notification of the appeal.

(c) The notice must be served in accordance with section 35 of the said legislation and in accordance with the prescripts or such additional requirements as may be determined by the Municipality.

(d) Proof of serving the notification must be submitted to the Municipality at the above E-mail address within 14 days of serving the notification.

9. Kindly note that no appeal right exists in terms of Section 62 of the Local Government Municipal Systems Act, No 32 of 2000.

10. Kindly note the above decision is suspended, and in the case of any approval, may therefore not be acted on, until such time as the period for lodging appeals has lapsed, any appeal has been finalised and you've been advised accordingly.

Yours faithfully

FOR DIRECTOR: PLANNING AND ECONOMIC DEVELOPMENT

DATE: 23/9/2022.

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ANNEXURE B

ANNEXURE 7
ARCHITECTURAL GUIDELINES

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PREAMBLE, PRINCIPLES, IMPERATIVES, OBJECTIVES AND PURPOSE

The constitution of South Africa obligates the state, government and the private sector to promote and give effect to sustainable development and therefore to enable long term sustainability. The property development sector has a critical role to play in this regard and municipalities are the authorities of first instance to ensure that this is in fact achieved in practice.

The overriding principle served by this framework is to enable sustainable development and sustainability. Commitments in this regard have been incorporated in the approvals granted for the rezoning and subdivision of the land by Stellenbosch Municipality.

In the rezoning application sustainable development was defined as "*development that promotes human well-being and the integrity of the environment by the efficient and just use of resources*". In the application it was systematically motivated how this could be achieved in ten distinct but integrated steps (this is referred to the 10 Steps Model for Sustainable Development prepared by this office). In Annexure A of this document a synopsis of the 10 Steps model is included for reference purposes.

Having regard for the holistic development approach that Johannesdal is committed to, this framework document presents the Architectural Guidelines that will be applicable to the proposed development..

Sustainable development is a process that takes place during planning-design, implementation of project management over time. During the planning-design and approval phase a vision and the development and the applicable development parameters were agreed upon. The images illustrated in this document encapsulate the vision for the development.

The task that lies ahead is to make the vision, principles and development parameters explicit and to add value to the development process by means of the guidelines and building codes summarized and illustrated in this document.

Guidelines are not intended to be strictly prescriptive. Therefore, unless otherwise specifically stated in this document, some discretion is allowed in the interpretation of the guidelines and scope exists for innovative and creative proposals on building plans submitted to the Home Owners Association (HOA) of Johannesdal. If, in the opinion of the HOA, proposals that deviate from these guidelines would improve the overall design of an individual building and if such deviation would add value to Johannesdal as a whole, the HOA may consider the endorsement of such a proposal. However, if proposals were made that cannot be reconciled with the original development intent that was motivated and illustrated in the applications and the illustrations incorporated in the conditions of approval, such proposals would not be approved by the HOA.

The guidelines provided in this document are supported by building codes that are not discretionary. In this regard reference is, for example, made to the colour of the roofs, type of paving material such as bitumen, brick or concrete, exterior colours of walls, specific types of windows, garage doors, plant species etc.

The final authority for the approval of building plans is Stellenbosch Municipality. In accordance with the constitution of the HOA, the latter has to endorse a plan approval application before it is submitted to the municipality. The responsibility for assessing and endorsing a building plans is delegated by the HOA to a professional architect registered with the South African Council of Architects (hereafter referred to as the control architects for the Development). It is the responsibility of the control architect to assess, support, comment and or request revisions to the plans submitted. If plans were, in the opinion of the control architect, not aligned with the guidelines and codes of this document, such plans would not be endorsed.

Nothing in this document or any regulations herewith, will be construed as permission to contravene the Title of Conditions of any Erf or any Zoning, By-Laws or Regulations of Stellenbosch Municipality, or its rezoning and subdivision conditions.

The design guidelines have been prepared to guide home owners and designers to contribute to the improvement and enhancement of the design and

development intent incorporated into the rezoning and subdivision approvals of the Stellenbosch Municipality. Individual property owners are invited to contribute to the optimization of the holistic vision for Johannesdal. The underlying philosophy is that the "whole is greater than the sum of its parts." In this regard individual property owners are to ensure that each house contributes to the quality of the development as a whole. This is a fundamental objective of this document.

NOTE:

1. These guidelines will be subject to periodical revision as deemed necessary from time to time.

2. In case of conflict, the control architects will make a final ruling.

Figure 1: Locality Plan

Prepared by Dennis Moss Partnership (COPYRIGHT RESERVED)

SECTION 1: ARCHITECTURAL GUIDELINES

1. BUILDING PLAN APPROVAL PROCEDURE

1.1 PLAN APPROVAL STANDARDS AND PROCESS

1.1.1 The final authority to approve building plans vests with Stellenbosch Municipality. The municipality requires that plans must be endorsed/aesthetically assessed & approved by the HOA or their delegated control architect before being submitted to the municipality for consideration.

1.1.2 Building plans for consideration must be prepared by a professional registered architect or professional registered senior architectural technologist.

Documentation required

i) For aesthetic evaluation colour copies of the building plans must be submitted to the HOA by the owner of the property. For a first submission one (1) colour copies of the building plans may be submitted for evaluation. Following that if the drawings are aesthetically approved to comply with the guidelines eight (8) sets of the building plans need to be submitted to the HOA to be stamped by the controlling architect before the plans is returned to the HOA for collection. The HOA will provide a letter that will release the plans for council submission.

ii) A non-refundable scrutiny fee (amount to be determined by the HOA from time to time) is payable to the HOA before any plans can be accepted for assessment by the control architect.

iii) Dimensions of drawings should be A1, A2 and A3 format and all drawings are to be folded to A4 size with the title block facing up. The owner and the name of the responsible architect or professional technologist must be clearly recorded in the title block together with the relevant Erf number, title of plan (e.g. floor plans, elevations, etc.), date, scale of drawing and north point on each drawing.

****NOTE - All plans must be signed by the owner and the professional architect/senior technologist that prepared the plans.**

1.2 INFORMATION REQUIRED ON BUILDING PLANS SUBMITTED FOR ENDORSEMENT

i) Site plan at scale 1:500 with cadastral information (i.e. Erf number, north point, boundaries, contours indicated at 1m or 0,5m intervals, building lines and setbacks, building areas, coverage, etc.); Erf numbers of adjoining properties; location of all structures on site; the driveway (designated vehicle access); hard/soft landscaping (where required); retaining structures; boundary walls and gates; building services, e.g. storm water reticulation, drainage etc.

ii) Detail breakdown of construction areas must be tabulated indicating building coverage and building area per floor and the total area. All measurements must be in m^2

iii) Building coverage must be expressed as a percentage of the total site area. The area of an erf must be provided.

iv) Height measured from the mean natural ground level to Ground floor top of concrete (TOC) and TOC to wall plate height to be indicated on drawings.

v) All floor plans (including a roof plan), elevations and a minimum of two sections through the dwelling and site at scale 1 : 100 must be provided. One of these sections must be a longitudinal section through the Erf and the other perpendicular to the street.

vi) Bulk earthworks and cut and fill, including retaining walls, must be clearly indicated.

vii) Plan, elevations and sections through boundary walls, fences, gates and retaining structures at min. scale 1 : 100 and chimney, handrails, timber decks, boundary wall or fence details at a larger scale, 1 : 50 or 1 : 25, must be indicated. All drawings to include key specifications and finishes.

viii) Complete door, window and shutter schedule showing dimensions, material description, and finishes at scale 1 : 50 must be provided. Window and door positions to be identified by a number or letter code. These must be cross-referenced on building plan and elevation.

ix) Schedule of external finishes and colour specification to be provided.

1.3 UNAUTHORISED DEVIATIONS FROM APPROVED BUILDING PLANS

i) In the event of an unauthorised construction undertaken it is the responsibility of the homeowner to ensure that such work is reported to the HOA and rectified. Deviations from approved building plans must be submitted to the control architect for scrutiny. All such applications must be in writing and no telephonic communication will be accepted in this regard.

2. PLANNING CONTROLS

2.1 ZONING

i) All residential erven are zoned Conventional Residential Zone – deemed consent for Group Housing (previously Residential Zone II), in accordance with the Stellenbosch Zoning Scheme By-Law, 2019.

ii) This architectural design framework must be read together with the conditions imposed by Stellenbosch Municipality relating to the approval of the rezoning and subdivision plans.

iii) The Approvals of Stellenbosch Municipality relating to the attached Rezoning and Subdivision Plan: Portion 2 of Farm 1331, Johannesdal, applies.

2.2 SIZE OF DWELLING

2.2.1 SIZE OF DWELLING

i) Only one residential dwelling (core building) per erf is permitted.

ii) A minimum size of 150m² is prescribed for the core building, inclusive of the garages, outbuildings and covered patios.

2.2.2 PRIVATE OUTDOOR SPACE

i) Each property must have at least 40% of the gross floor space of the building dedicated to private outdoor space.

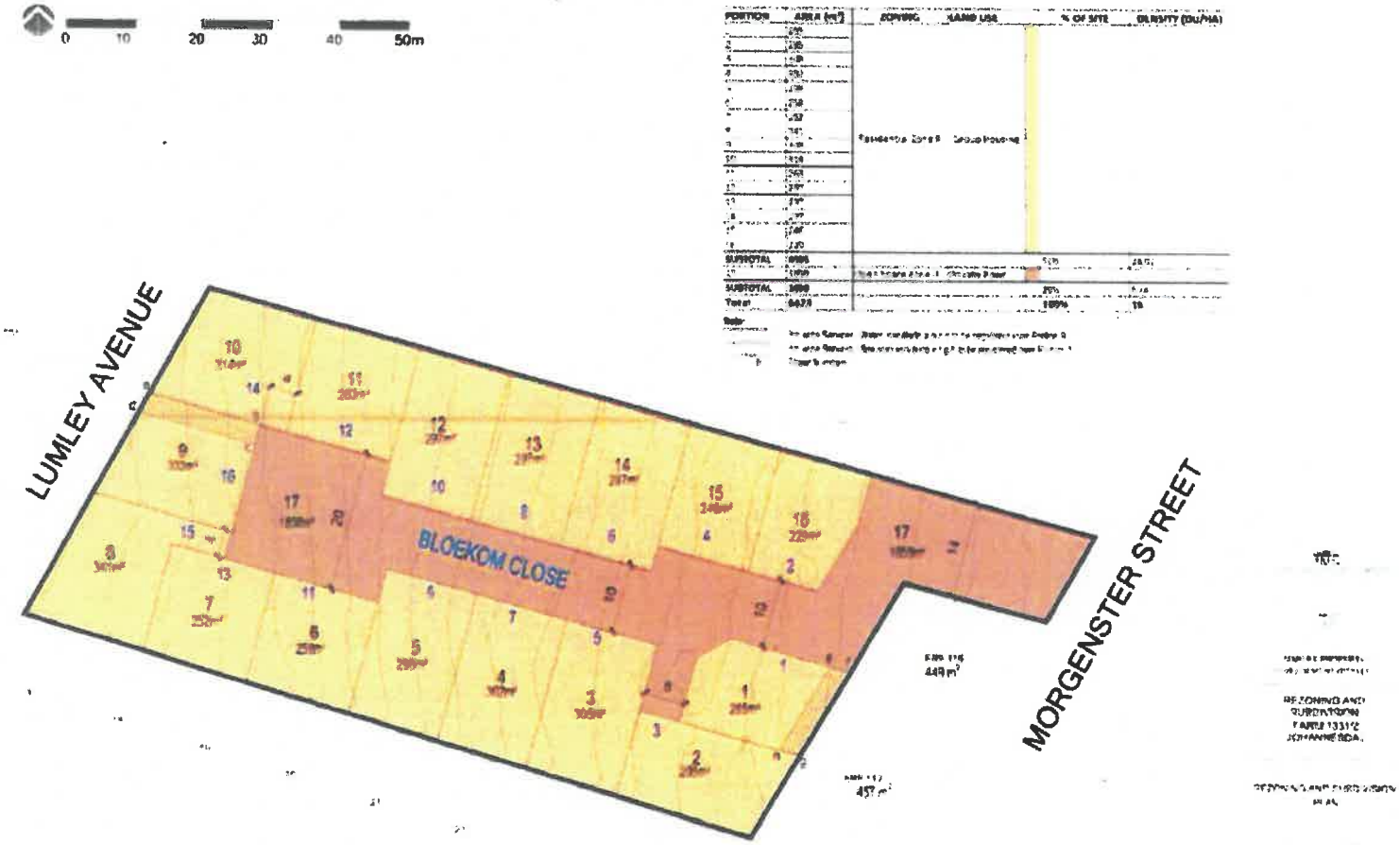

Figure 2: Rezoning and Subdivision Plan

Figure 3: Site Development Plan

2.3 BUILDING LINES

The building lines for the development are as per the parameters of the Stellenbosch Zoning Scheme By-Law, 2019:

2.3.1 Street building lines:

i) An external street building line of 3.0m applies where the group housing site abuts an external public street.
ii) Street boundary building lines on internal streets are 0.0m.

2.3.2 Common building lines:

i) Common boundary building lines of 3.0m applies along the perimeter of the group housing site.
ii) Common boundary building lines within the group housing development are 0.0m.

2.3.3 General:

i) Swimming Pools: The building line for pools is a setback of 1,0m from any erf boundary. Fencing around pools must comply with the National Building Regulations.
ii) A balcony projecting from the face of a building may not be closer than 1.0m from the common boundary.

2.4 BUILDING HEIGHTS

**NOTE – written dimensions in the text below take preference & override any dimensions shown in images/figures.

i) **Building heights** are restricted to a maximum height as prescribed below and **may not exceed 2 storeys in total** EXCLUDING the basement level – refer (ii) below for definition of a basement. For the purpose of these guidelines **a storey is defined** as a single level of any building, measured from finished floor level to finished floor level of the storey above, or to the ceiling in the case of the top storey. A roof-space utilised or intended to be utilised for the purpose of human habitation is also regarded as a storey. If the ceiling level varies, the mean ceiling level will be calculated. One storey shall not exceed 4 meters, therefore the two-storey building shall not exceed 8 meters measured from finished ground floor level to ceiling of the first floor, and so forth.
ii) A **basement** is defined as any storey or division of a storey with a ceiling level which protrudes less than 1.0m at any point above existing ground level. NOTE- Basements can only be used for non-habitable spaces like the garage/s and storage, with retaining walls to the back and side of the house (where applicable). Due to the nature of the site, entrance lobbies are also allowed on basement level for access.
iii) Retaining walls at the back of the site must be stepped.

2.5 BUILDING WIDTH - CORE BUILDING, ABUTMENTS AND LINKING ELEMENTS

2.5.1 CORE BUILDING

Differentiation is made between core buildings and abutments. This principle applies as all building dimensions and heights.

i) The width of any core building may not exceed 6.6m wide.
ii) Linking elements between core buildings may not exceed 4.5m in width.

2.5.2 ABUTMENTS

i) The width of any abutment to the core building may not exceed 6.0 metres wide.

2.6 BUILDING ON STEEP SLOPES

It is to be recognised that the developer will be selling erven to individuals and that owners must take special care when preparing their building plans with regards to the existing natural ground levels and platforms on site. Special attention is drawn to height restrictions and the definition of 'basement' in designing the entry level for the house (refer par. 2.4 ii).

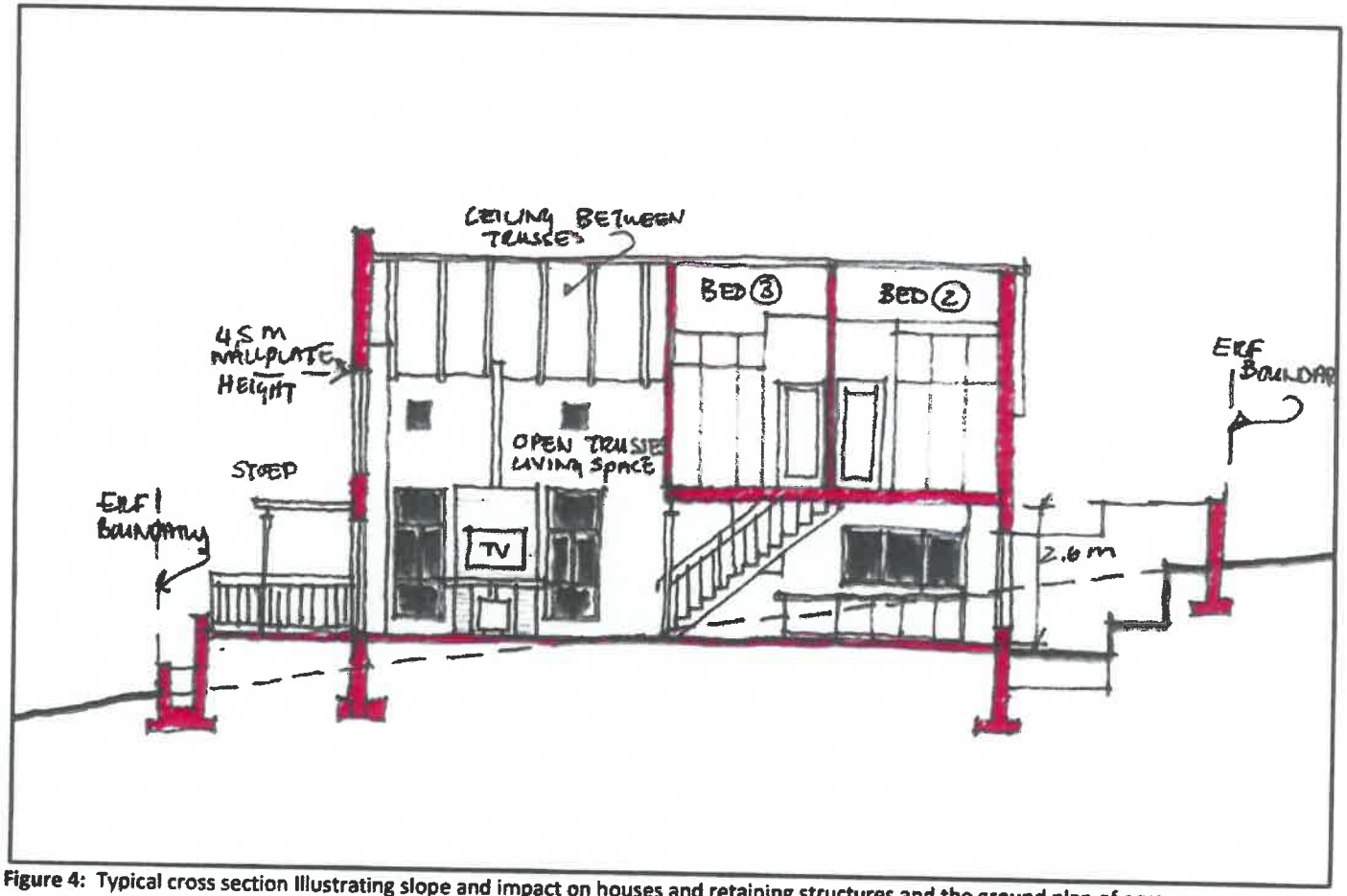

Figure 4: Typical cross section Illustrating slope and impact on houses and retaining structures and the ground plan of erven

3. ARCHITECTURAL CHARACTER AND AESTHETICS

The architecture of Johannesdal is primarily informed by the historic typology and rural character of the Cape Winelands settlements.

Cape Village architecture has a characteristic typology which is used as the basis for the designs. One of these is the use of low walls to connect houses and form a continuity of the street edge. Consistent with contemporary design requirements, larger glazed areas are incorporated so as to create indoor/outdoor fusion. Care should however be taken that the glazed areas do not dilute the value of the typology of the Cape Winelands architecture to the point where the spirit of the Cape Village street scene is lost.

Furthermore, from an aesthetic perspective, the design of each building should be considered in context of its impact or potential impact on adjoining buildings and in context of the whole.

Scale and proportion are crucial elements in the establishment of the Cape Village architectural language, especially where contemporary elements are incorporated. Careful consideration should therefore be given to scale, proportions and the articulation of the building forms, their heights, dimensions, roofs, wall openings and detailing in order to achieve an attractive and cohesive architectural language for Johannesdal.

The buildings shall be set on cut-and-fill platforms as dictated by the specific site contours, regulated to minimise the impact on the development in the natural environment.

EXCLUSIONS:

Cape Dutch Copies; Mediterranean/Spanish Style Architecture; Tuscan Style Architecture; Post Modern Elements; the preferential use for horizontal proportions prevalent in Modern Architecture and Thatch Roof and Conservatory Structures.

3.1 BUILDING FORM (TYPOLOGY)

Typology is the study and theory of architectural type, such as the form of the traditional Cape "letter of the alphabet" house with its double pitch roofs, abutments with lean – to and flat roofs. This typology is the principal informant for the design of the houses. The courtyard concept should be promoted as far as possible. The combined use of double pitched roofs and flat roofs should be used to break down the scale/massing of the buildings as well as to help with the view lines from one dwelling over another. The traditional Cape buildings typology is illustrated by the figures below.

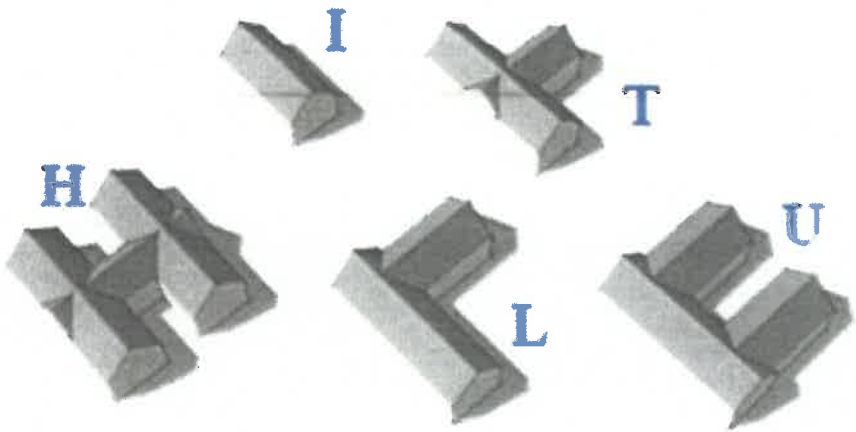

Figure 5: Illustration of the traditional Cape letter of the alphabet building form/

3.1.1 CORE BUILDING AND ABUTMENTS

i) The main building structure is referred to as the **core building.** The core building must conform to the traditional "letter of the alphabet" building form. In this particular typology, the plan form of the core building forms part of the letters I, T, L, H or U or variations thereof.

ii) The core building has a double pitched roof with a pitch of 40 degrees.

Figure 6: Illustration of the traditional Cape letter of the alphabet building form.

iii) **Abutments** (Extensions) to the core building must always be rectangular in plan form and may only be built perpendicular to the core building. No variation on this condition will be considered.

iv) Core buildings and Abutments must conform to the dimensions prescribed in this document.

v) In order to create larger floor plans than what the prescribed dimensions for a core building allow, the plan of the core building may be extended by adding abutments and/or using flat roof links to connect letter of the alphabet building forms.

3.2 ROOFS

3.2.1 ROOF CONSTRUCTION

3.2.1.1 Roofs over Core Buildings

i) It is prescribed that the same roofing material be used for all double pitched and lean-to roofs on a dwelling.

ii) The core building must have a double pitched roof of 40 degrees (always symmetrical) as illustrated in this document.

iii) Double pitched roofs must have clipped ends – maximum 100mm overhang with eave overhangs to be 100mm, measured from the wall and to exclude fascia and gutter. Parapet walls (gable ends) on core building, with pitched roofs, may be incorporated.

3.2.1.2 Flat Roofs over Abutments

i) Roofs over abutments may be concrete flat roofs with waterproofing on screeds to fall protected with crushed stone chips OR mono-pitch metal roofs such as "Diamondek" or "Brownbuild Klip Lok" or similar approved concealed fix metal roof sheeting (with a pitch of less than 5 degrees). Metal roofs must match the core building in colour and material.

ii) Metal or concrete flat roofs must be hidden behind a horizontal parapet wall all-round to conceal the roof and preferably have a concealed box gutter, however consideration will be given on abutments & it will be allowed for metal flat roofs to have the gutter open on the side not facing the street provided that the other three sides of the roof is concealed by an horizontal parapet wall on three sides. In such cases the gutter must sit flush up against the building & no overhang will be allowed.

3.2.1.3 Roofs over Patios

i) Roofs over patios may be concrete flat roofs concealed behind a horizontal parapet wall all round OR mono pitch metal roofs (lean-to roof) that match the core building in material, profile & colour, with a pitch between 5 and 10 degrees that may be visible from the street.

ii) Polycarbonate sheeting (NOTE - flat sheets ONLY) to promote light onto patios are allowed with the condition that it may NOT be used on the core building and are restricted to a flat roof application over pergolas or patios with the condition that the material may not be visible from any side. Such roofs must ALWAYS be hidden behind a timber fascia or horizontal parapet wall all-round & no gutter may be visible from any elevation.

3.2.1.3 Roof Windows and Skylights

i) Roof windows and skylights are subject to prior aesthetic approval. Only vertically proportioned windows (maximum size 1000mm wide x 1500mm high) with clear flat glass will be permitted. Velux or similar approved type roof windows may be used. The position of these windows must always align with doors and/or windows on the elevations of the building.

ii) Skylights in flat roofs may be used to permit light into interior spaces. These skylights may not be visible on elevation. Dome or any other shaped skylights will not be permitted unless totally hidden by parapet walls.

3.3 ROOF COVERINGS, ROOF ELEMENTS AND TECHNICAL SPECIFICATIONS

i) **Core buildings: Pitched Roofs at 40 Degrees – Metal Roof Sheeting, Capping and Ridges**

- "Diamondek" or "Brownbuild Klip Lok" or similar approved concealed fix metal roof sheeting.
- Colour: 'Chromadek' Dark Dolphin or 'Colourbond' Volcanic Grey.

ii) **Fibre-Cement Facias; Bargeboards; Eaves overhangs and Soffits**

- Fascias and bargeboards to be (225 or 150) x 12mm "Everite Nutec" or similar approved medium density fibre cement board with plain finish, butt jointed and painted with high quality acrylic paint in the component colour as per par 3.3.3 **OR** to match the roof colour.
- Eaves soffits to be closed between rafters with "Everite Nutec" or similar approved medium density fibre cement board and finished with a high quality acrylic paint, colour white.
- Eave closures to be painted white.

EXCLUSIONS:

Victorian or any profiled fibre-cement fascias.

iii) **Flat concrete roofs**

- Concrete flat roofs with torch-on fusion waterproofing and painted with protective silver paint and 19mmØ stone chips.

iv) **Mono-pitch roofs**

- Roofs with a pitch of 5 degrees or less: "Diamondek" or "Brownbuild Klip Lok" or similar approved concealed fix metal roof sheeting –

must always be enclosed all round behind a horizontal parapet wall in order not to be visible from view, except in the case of stoep roofs.

- Roofs with a pitch between 5 and 10 degrees (for stoep/patio overhangs): "Diamondek" or "Brownbuild Klip Lok" or similar approved concealed fix metal roof sheeting
- Colour – 'Chromadek' Dark Dolphin or 'Colourbond' Volcanic Grey

EXCLUSIONS:

Roof sheeting other than the prescribed roof sheeting is not allowed;
Shade cloth on the main dwelling or any of the outbuildings, carports or freestanding buildings is not allowed;

Profiled perspex and/or fiberglass sheeting on the core building or any portion thereof MAY NOT be used, EXCEPT on patio's where flat sheeting as stipulated in text above (refer par. 3.2.1.3 ii) may be used;
Pergolas may not be covered with shade cloth; and
No Thatch roofs allowed.

3.3.1 RAINWATER GOODS

i) **Rainwater Gutters - Visible**

- Pre-painted seamless 'Watertite' Aluminium or similar approved, extruded gutter in domestic 'ogee' profile.
- Colour – Charcoal.

ii) **Rainwater Gutters – Concealed**

- Pre-painted seamless 'Watertite' Aluminium or similar approved, extruded gutter in square profile.
- Colour – powder coated Charcoal.

iii) **Rainwater Down Pipes and Hopper Heads**

- Down Pipes - uPVC round down pipes with appropriate fittings and fixings painted to match colour of gutter (charcoal) OR pre-painted seamless 'Watertite' Aluminium or similar, extruded round or square downpipe/s - colour charcoal.
- Hopper heads - Pre-painted seamless 'Watertite' Aluminium or similar approved, standard hopper head.
- Colour – powder coated Charcoal. Downpipes may also be painted to match the wall to which they are affixed.

3.3.2 EXTERIOR WALLS

i) Exterior walls, window sills, plaster bands and building plinths must be plastered with a smooth wood trowel finish and painted. Colours as specified under par. 3.3.3 approved wall colours, also refer Figure 6.

ii) All window sills to be painted the same colour of the wall.

iii) Simple plaster bands, with a max width of 300mm may be used above and around doors, windows and openings (refer Figures in document). However, plaster quoins, rustication and decorative mouldings are not permitted. A longer plaster band or recess below windows 600, 900 and 1200mm long is allowed to lengthen the vertical proportion of a window.

iv) Plaster bands must be painted to match the colour of the wall into which they sit OR in the approved component colour as per par 3.3.3.

v) Thickened walls for building plinths may be used.

vi) Bagged and painted exterior finish will be allowed in contrast to smooth plastered areas.

vii) The use of **Vertical zink cladding and whitewashed - or red exposed brick** will be allowed to create accent and focus.

viii) Plumbing and AC pipes are to be suitably concealed within walls or ducts, where possible and when exposed to the exterior, painted to match the colour of the exterior walls.

Figure 7: Alternative materials to be considered

EXCLUSIONS:-

Timber Logs;
Timber plank or "handiplank" or similar;
No colour pigmented and cement based plaster paint finishes permitted.

3.3.3 WINDOWS, DOORS and SHUTTERS

i) Windows and Doors

- All aluminium windows and doors to be epoxy powder coated MATT Dark Traffic Grey (code VP 7156) to match the roof OR MATT White (code ANP 1101). NOTE only one of these two accent colours may be used in any one building - MATT Dark Traffic Grey & White may not be mixed. Timber doors and windows to be varnished or painted to match the aluminium accent colour chosen. Matching paint colour for MATT Dark Traffic Grey = Plascon colour Gunpowder, code E 28-6.
- All windows and doors to be vertically proportioned. . The ratio of horizontal dimension to vertical must be between 1 : 1.5 ; 1 : 2 or 1 : 3.
- Where the width of large doors and windows exceed the height, such doors and windows will be allowed, subject to the approval of the control architect, provided that they are sub-divided in a vertical proportion AND it is prescribed that such windows & doors MUST be screened or recessed minimum 2000mm behind the outer line of a pergola, veranda or covered patio.
- Corner windows are allowed.
- Selectively placed plaster bands are allowed and has to be painted in the approved component colour OR white – whichever is in contrast to the wall colour in which it sits.

- GENERAL GUIDELINES for WINDOW PLACEMENT. Windows should generally be:

  i) Taller on the ground floor, than on the first floor;
  ii) Kept on the same head height throughout the same storey;
  iii) Of the same width in vertical succession, lined up above each other;
  iv) Arranged in groupings of twos and threes to create a rhythmic pattern; and
  v) Used in families, sharing the same proportions.

ii) HW Meranti Front Door and Frame

- Front doors may be in aluminium or wood. Door & door frame must be of the same material. Doors may be solid or have glazing. Aluminium must be powder coated in one of the two approved colours prescribed for the windows under par 3.4.3 i) and their colour must match the window colour selected. Timber doors must be varnished or painted to match the aluminium colour chosen for the windows. Matching paint colour for MATT Dark Traffic Grey = Plascon colour Gunpowder, code E 28-6.
- Any double door; folding stacking door and/or door/window combination where the total brick opening is wider than 1800mm is allowed with the condition that it must be screened behind a veranda or pergola with a minimum depth of 2000mm and the location thereof is subject to the approval of the control architect.

- Glazed horizontal sliding doors with sidelights will be allowed at the discretion of the control architect. Where the overall width of such door/window combination is wider than 1800mm it must be screened behind a veranda or pergola with a minimum depth of 2000mm and the location thereof is subject to the approval of the control architect.

iii) Glazing to Windows and Doors

- All glazing to comply with the National Building Regulations (NBR); SANS 10400-XA; SANS 204 and AAAMSA specifications.

EXCLUSIONS – WINDOWS & DOORS:

Natural or Bronze Anodised Aluminium;
Steel window and door frames;
No ornate or carved doors will be permitted;
No 'Winblok" or other precast concrete windows, glass blocks or leaded windows with coloured glass patterns allowed;
No small cottage pane windows;
No small 'toilet type' windows may be visible from the street;
Reflective mirror glass or film is not permitted.

iv) Shutters

- The use of functional, sliding or swing, shutters to reduce summer heat are strongly encouraged.
- No 'false/mock' shutters permitted.
- Shutters may be internal or external mounted, folding or sliding and louvre or solid.
- Shutters may be in aluminium or wood. Aluminium must be epoxy powder coated in one of the two approved accent colours prescribed for the windows under par 3.4.3 i) and their colour must match the window colour selected. Timber louvres must be varnished or painted to match the aluminium colour chosen. Matching paint colour for MATT Dark Traffic Grey = Plascon colour Gunpowder, code E 28-6.
- Shutter widths must be in harmony with the windows they cover.
- The surface finish and colour of the shutters must match that of the window frame over which they close.

EXCLUSIONS - SHUTTERS:

No fake/mock shutters;
No permanently fixed shutters; and
No Metal roller shutters for windows.

3.3.4 GARAGES AND CARPORTS

- Garage door openings may be for one x double or two x single garage doors. In the case of two single garage doors, the doors must be separated by a prescribed 450mm wide plastered and painted brick column.
- Garage doors must always be set back at least 5.0m from the street boundary (edge of kerb) to create an additional parking space in front of the garage and must always be screened with a pergola or be set back from the front façade by at least 0,5m min. Aforementioned condition is prescribed and must be constructed under all circumstances.
- The pattern on garage doors may only be horizontal. Timber or Aluminium/metal garage doors to match "Coroma Corolux" or similar approved sectional overhead garage doors are preferred. Tip-up type doors may also be used.
- Aluminium/metal garage doors to be epoxy powder coated MATT Dark Traffic Grey (code VP 7156) to match the roof OR MATT White (code ANP 1101). NOTE only one of these two accent colours may be used in any one building - MATT Dark Traffic Grey & White may not be mixed. Timber garage doors to be varnished or painted to match the aluminium accent colour chosen for the windows & doors. Matching paint colour for MATT Dark Traffic Grey = Plascon colour Gunpowder, code E 28-6.
- NOTE- Garages may not be altered and changed into accommodation or living spaces.

EXCLUSIONS:
No PVC garage doors;
All patterned garage doors except horizontal pattern specified above;
Prefabricated garages;
Steel or aluminium louvered carports; and
Shade cloth covering to carports.

3.3.5 OTHER

- Hard wood Meranti Timber Posts and Beams - Must be varnished or painted to match one of the accent colours chosen for the windows or doors, i.e. White OR Plascon colour Gunpowder, code E 28-6 OR 2x coats Crown Weatherglow or similar approved.
- Palisades and metal gates forming part of a palisade fence must be painted in Plascon colour Gunpowder, code E 28-6.
- Balustrades & metal, wrought iron or timber gates must be painted to match the accent colour chosen for the windows & doors, i.e. White OR Plascon colour Gunpowder, code E 28-6. Timber gate may also be varnished with 2x coats Crown Weatherglow or similar approved.
- Masonry chimneys must be painted to match the adjoining wall colour.

3.4 PATIOS AND VERANDA

3.4.1 GENERAL

- Patios may be covered with a roof or a pergola with evenly spaced rafters or left uncovered. Vines or other suitable creepers are encouraged to be grown to cover pergolas.
- For roofs over patios refer par. 3.2.1.3 i & ii)
- The underside of the roof structure to verandas may be exposed below the roof sheeting or a suitable ceiling may be installed.
- Patios or verandas located on the private side of the core building are defined as 'private patio'.
- Patios may be enclosed. ONLY frameless glass panels & frameless folding stacking doors will be allowed to do this. No other material will be allowed. All will be subject to the approval of the Control Architect.

3.4.2 VERANDAH AND PERGOLA COLUMNS

The following column structures are allowed for patios and verandas:

- Plastered masonry column base of 340 x 340mm with a plaster coping and a hardwood timber post. Brick bases may not be higher than 850mm and must be plastered.
- Square hardwood timber posts of size PAR 69 – 144mm or hardwood timber post detail with double timber posts (PAR size 32 x 144 minimum).
- Square masonry column of 220 x 220mm on square masonry base of 340mm x 340mm with plaster coping detail on brick base. All to be plastered and brick base may be no higher than 850mm.
- Plastered masonry columns to be a minimum dimension of 220 x 220mm or 340 x 340mm.
- Square metal columns or steel I-sections. All external metalwork to be galvanized & painted.

EXCLUSIONS:
Aluminium sections may not be used; and
No precast concrete columns or concrete pipe sections are permitted.

3.4.3 VERANDA AND PERGOLA CORNER BRACKETS

The following conditions apply to corner brackets:-

- Simple hardwood timber corner brackets may only be used in conjunction with square timber posts/columns.
- Timber corner brackets must be painted to match the timber posts/columns.

EXCLUSIONS:

No wrought iron, steel, cast aluminium or decorative corner brackets allowed.

3.4.4 TIMBER DECKS

- Hardwood timber decks (Figure 7) may only be constructed on the private outdoor side of the dwelling.
- Such decks may be built over the building line up to the erf boundary, however roofs over such decks must fall within the building lines as prescribed under section 2.3 Building Lines above.
- Decks may not be higher than 750mm from natural ground level.
- Timber for decks to be appropriately selected & treated to weather external conditions and sustainable composite timber materials may be used.

3.5 BALCONIES

It is advised that through these guidelines, the Control Architect or the Home Owner's Association cannot guarantee visual privacy. Special precaution must be taken in the design to ensure that the placing of balconies does not compromise the privacy of neighbouring dwellings.

i) Balconies must form an integral part of the design and any visible sides of slabs on elevation, must be plastered and painted to match the wall surface to which they attach.

ii) No balcony will be allowed over any building line, however a waiver to this rule may be allowed at the discretion of the Control Architect allowing a 350mm max overhang.

3.6 BALUSTRADING

Handrails must always conform to the National Building Regulations (NBR). In addition, the following conditions apply:

- The height to the top of all handrails, including those mounted on brickwork, MUST be 1000mm above the adjoining floor finish.
- Balusters may be positioned vertically or horizontally.
- Hardwood timber balusters are allowed, varnished or painted as prescribed in this document.

- Square mild steel tubing and flat metal balustrades are allowed. All external metalwork to be galvanized & painted in one of the accent colours chosen for the windows or the component colour prescribed under par 3.3.3.
- Painted and plastered brickwork is allowed.
- Glass balustrading is allowed.
- Stainless Steel balustrading is allowed.
- Additional ranges and purpose-made balustrades will be subject to the approval of the Control Architect.

EXCLUSIONS: -

Any form of solid sheet panelling;
'Yacht type' handrail details, stainless steel cabling or similar; and
Balustrades fixed in a criss - cross pattern is not permitted.

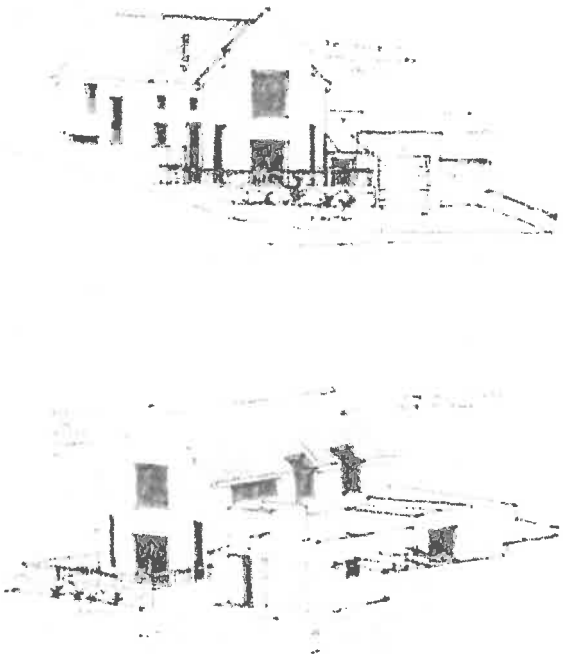

Figure 9: Typical Architectural Style.

3.7 BOUNDARY WALLS AND PALISADES

3.7.1 BOUNDARY WALL DEFINITIONS

For the purposes of these Guidelines, the following **internal** boundary wall conditions are defined for the development, as follows:

3.7.1.1 Common Boundary (Side Boundary):

i) Any single boundary, which separates two adjoining residential erven must be a solid wall with a maximum height of 1800mm, plastered and painted smooth on all sides. This wall type may also be used to link the building to the side boundary to create edge continuity – a garden gate may be placed in this wall for access to the rear of the property. These walls must step to follow the slope of the site.

ii) Side boundary wall lengths have to be determined in consultation with the control architect. The criteria are to ensure that a harmonious relationship is established between wall height, the terraces and the surrounding landscape.

3.7.1.2 Rear Boundary:

i) Where erven borders the external boundary of the whole development, the existing boundary condition will form the rear boundary.

3.7.1.3 Street & Front boundary:

i) Where an erf is situated on a corner, the Control Architect will at their discretion, determine the street boundary. The other boundary will be defined as the back or side boundary, or where required, a street boundary whichever applicable. This wall may not be higher than 0.9m and must be smooth plastered and painted in the approved colour.

ii) Where possible all erven must have low walls (max 0.9m) on the front of their property to form edge continuity with the adjacent properties and form a cohesive development.

For the purposes of these Guidelines, the following **perimeter boundary** wall conditions, defined for the development, are illustrated below in Fig. 10.

The perimeter fence & wall will remain the property of the HOA. Access may be required for maintenance of the security purposes.

3.7.2 GENERAL CONDITIONS IN RESPECT OF THE DESIGN OF BOUNDARY WALLS

Any walls not built on an actual boundary line, but which fulfil the function of a boundary wall in relation to a boundary or dwelling, will be deemed to be a boundary wall for the purposes of this document and as may be determined by the Control Architect.

i) The provisions described in this guideline document apply to all erven, other than where a specific code applicable to an erf is in conflict with these guidelines, in which case the provisions of such specific code shall prevail.

ii) All boundary walls and built masonry columns must incorporate saddle copings projecting no more than 20mm on either side of the wall.

iii) Where walls incorporate masonry columns (spaced at max. 2,5 - 3m centres as advised by a Structural Engineer), such columns must be square and may protrude no more than 100mm from the face of the solid wall section.

iv) Boundary walls must be simple and may not incorporate any recessed or raised panels, or any other form of embellishment.

v) Any reference to the maximum height of a wall shall be taken as a measurement to the top of any coping forming part of the wall. The adjoining columns may be slightly higher.

vi) Shared boundary walls between erven may not exceed 1800mm in height, measured from the highest platform level at any one side of the erf boundary.

vii) On the internal street boundary side, it is prescribed, that where walling is required, only low garden walls restricted to a maximum height of 900mm may be built. It is prescribed that the shared side boundary forming part of the street domain, i.e. walling on the side boundaries on the street side of the dwelling must also be kept low at a maximum height of 900mm to allow visual interaction with the street in order to enhance the quality and character of the development.

viii) All boundary walls, boundary fencing and fencing around pools must be designed and built to comply with the National Building Regulations (NBR). Specific conditions apply to pool fencing, refer applicable NBR for detail.

ix) A service yard may be incorporated as part of a boundary wall and may only be constructed to a height of 1.8m to effectively screen any items contained in the service yard from the view.

x) ****NOTE:** Each property owner should ensure that adequate emergency escape routes exist for **surface stormwater runoff** to exit the property should the secondary stormwater drainage system malfunction.

EXCLUSIONS APPLICABLE TO BOUNDARY WALLS:
No prefabricated walling systems or similar allowed;
No Face brick, natural stone wall or stone cladding;
No sheet material; and
Barbed wire on walls is not permitted.

3.8 MISCELLANEOUS AND GENERAL

i) The location of all **television aerials or satellite dishes** should be considered carefully. The final position, size and location of all satellite dishes and television aerials are subject to approval by the Johannesdal HOA. Satellite dishes must be White composite or approved equivalent as approved by the HOA.

ii) All **telephone and electrical cable reticulation** on the property must be underground. No overhead masts or wires are permitted.

iii) All **gas cylinders, refuse bins, compost piles and clothes lines** must be screened within service/drying yards in order not to be visible from the neighbouring properties, or the street.

iv) **House numbers** may not be larger than 150mm high and 100mm wide. The preferred lettering style is Verdana Bold and the colour is charcoal to match the roof sheeting OR may be in a natural brushed aluminium colour. All lettering and numbering to conform to the approved design for the project. All lettering and numbering to be placed horizontally and in line and to be understated. The size and location of all house numbers and **letter boxes** are subject to the final approval of the HOA.

v) All **exterior lighting** should be sensitively positioned and not directed in such a way that it may have a negative impact on the immediate surroundings or potentially in view or hazardous to adjoining properties, residents or passing traffic. Exterior lighting should shine down. It is recommended that all exterior lights be energy saving fittings. Security lights may not cast direct light outside the erf upon which they are situated and must be activated by movement sensors. All exterior light fittings to dwellings to match the fittings of Johannesdal and to be approved by the HOA. Colour for exterior light fittings is charcoal to match the roof sheeting OR may be in a natural brushed aluminium colour.

vi) The aesthetic approval of all **burglar bars and security gates** are subject to the approval of the HOA prior to installation. Any burglar bars and security gates MUST under all circumstances be fixed on the interior of the dwelling and burglar bars may only be the clear view transparent type burglar bars. Security gates are only permissible if mounted internally behind a solid door and may not be visible from the exterior of the building.

EXCLUSIONS:

Any alternative type of burglar bar or security gate than specified above; and
No burglar bars or security gates fitted on the exterior face of any buildings allowed.

vii) **Awnings (retractable or fixed)** are acceptable if in a plain design without stripes and scallops in the fabric and of a single approved colour such as natural canvas, as approved by the Control Architect. Aluminium or fiberglass awnings and canopies are not permitted. Proposals/designs for awnings must be submitted to the Control Architect which must approve this before installation.

viii) **Solar or heat pump thermal systems** - are required (refer to Section III). The angle at which the flat plate solar collector or evacuative tubes are mounted must lie flush with the roof and the frame and fittings must be powder coated to match the roof colour. Heat Pumps must be installed inside service yards or a purpose built enclosure and be fixed as low to ground as possible in order not to be visible from street view. Position of solar equipment must be shown on plan and elevation and be submitted to the control Architect for aesthetic approval prior to installation.

EXCLUSIONS:

Solar tank systems, where the solar hot water storage tank is fitted outside or on top of the roof are not allowed.

ix) **Swimming Pools:** No 'Porta Pools' or similar equivalent pool above ground level is permitted. The position, colour and design of all swimming pools are subject to the final approval by the HOA. The final position of the pool, pump and filter must be shown on plan, elevation and section must be submitted to the HOA for prior approval. Fencing around pools must comply with the National Building Regulations.

x) **Air-conditioning condenser units** must be installed inside service yards & fixed as low to the ground as possible in order not to be visible from the street view. These units must always be screened by an aesthetic approved hardwood timber lattice or louvre screen, installed a minimum of 500mm or at alternative distance recommended by AC manufacturer away from the condenser unit, ducts, grilles and heat pumps, etc. to ensure that such installations are suitably concealed and not visible/exposed on the exterior façade of the building and also not be visible from the front of the building or street side. All pipework must be concealed in the wall and no exposed conduits are allowed. Air conditioning & heat pump condenser units must be located in the least visually intrusive position available (i.e. on side walls and hidden in service yards) and always be installed as low to ground level as practically possible. Units may not be installed higher than 1200mm above ground level. Proposed positions must be submitted to the Control Architect for aesthetic approval prior to installation. Units outside service yards must be entirely screened from visibility with a painted timber screen, painted to match the wall to which it is attached.

EXCLUSIONS:

No window mounted air-conditioning units are allowed.

xi) **No sewer, vent and water pipes** may be visible from the street and are not allowed above one meter from ground level. Stub vent stack systems to be used. All piping to be painted to match the adjoining wall colour onto which the pipe is fixed.

xii) All **chimneys** must comply with and be in strict accordance with the dimensions as prescribed in the National Building Regulations (NBR). Built masonry chimneys as illustrated in this document are preferred and must be plastered and painted. The only exception to this rule will be in the case of internal combustion stoves or similar approved energy efficient heating devices where such chimney pipes are less than 200mm in diameter. Said chimney pipes will be permitted to protrude above a built masonry chimney base as illustrated in this document OR may protruded through and above the roof in accordance with the dimensions as prescribed in the NBR and the chimney pipes MUST in all cases be manufactured from stainless steel. In the case where chimney pipes exceed 200mm in diameter the built masonry chimney rule applies, i.e. a built masonry chimney, plastered and painted as stipulated above MUST be built. Fixed metal chimney cowls in matching stainless steel material must complete the installation. All chimney installations to be submitted to Control Architects for aesthetic approval. Plastered and painted chimneys may be painted in the same colour as the adjoining wall OR in the component colour – par. 3.3.3

EXCLUSIONS:

No exposed fibre cement or galv. mild steel flue pipes except stainless steel;
No rotating metal chimney cowls (i.e. "bird-shape" cowl)

xiii) No **garden/tool sheds, Wendy houses or temporary structures** will be allowed.

xiv) No **dog kennels** and covered facilities for **caravans, boats or trailers** may be visible from the street. Dog kennels, caravans & boats must be stored out of sight.

SECTION 2: PRINCIPLES OF SUSTAINABLE DEVELOPMENT

4 SUSTAINABILITY

Sustainable development has long term sustainability as the ultimate goal. The philosophy supported in Johannesdal is that "every bit counts" and that unless the sustainable development process is managed and measured, success rates will be low, or worse, the principles would fail.

In the Basic Impact Assessment (*ito* NEMA, Act 107 of 1998) and the application for Rezoning, Subdivision and Amendment of Development Conditions (*ito* LUPO, Ord 15 of 1985) commitments have been made to promote the contribution of Johannesdal to addressing climate change during both the construction phase and the operational phase. As stipulated below, the primary responsibility for the continued implementation and management of these commitments will rest with the private home owners and the HOA during the operational phase.

Various rating tools are available in South Africa which could be used to assess the degree to which the project and individual homes promote the principles of environmentally friendly design, construction and operation. Refer to Annexure C for introductory information on the Green Building Council's Green Star Rating Tools and EDGE for homes rating tools.

4.1 MANAGEMENT

To achieve the set sustainable development objectives two distinctive programs have been identified namely an Environmental Program and a Property Development Program. The EMP covers each of these programs and compliance is to be measured and monitored in terms of ISO 14001 by the developer during the construction phase and by the HOA in the long term. Differentiation is made between the responsibilities of the developer/HOA and the private property owners as is illustrated and explained below.

4.1.1 DEVELOPMENT ENTITY AND PROPERTY OWNERS RESPONSIBILITIES

Figure 10: Management Areas and Areas of Responsibility

4.2 PROMOTING ENERGY EFFICIENCY

The following measures have been identified which will be implemented in order to reduce energy consumption, promote the efficient use of energy and promote appropriate alternative renewable energy sources.

4.2.1 PASSIVE SOLAR DESIGN

The correct design of urban space and related buildings through the application of Passive Solar Design principles will contribute significantly to reducing energy use (specifically energy required for heating and cooling a building). Passive solar design is based on the following 6 principles i.e:

i) Building orientation
ii) Thermal massing
iii) Shading
iv) Ventilation
v) Insulation
vi) Landscape design

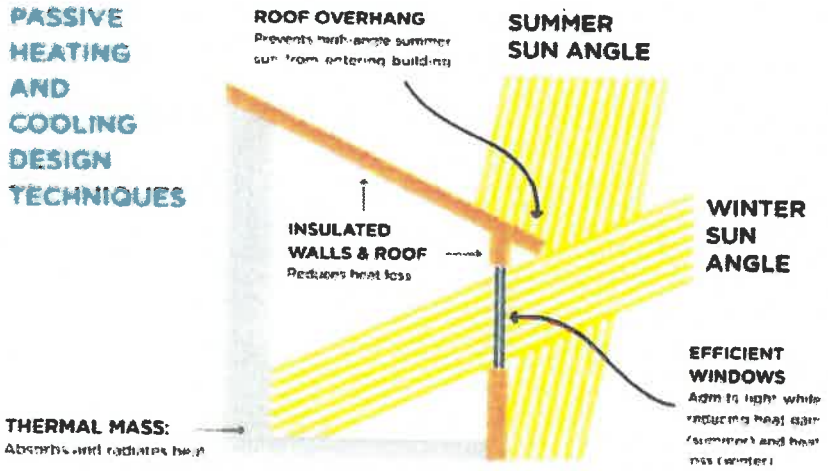

Figure 11: Basic principles of Passive Solar Design.

Buildings have been designed to collect, store and radiate heat inside the building to maintain higher night-time temperatures in winter while in summer excessive internal heating of the building is avoided.

4.2.2 PROMOTING ENERGY EFFICIENCY

The use of energy efficient electrical and associated appliances in all buildings will be promoted. A range of possible measures include the following:
Installation of a Building Management System which controls all energy related appliances, lighting, heating and cooling which could contribute to promoting energy savings.

i) Installation of low energy lighting in and around buildings and public spaces.
ii) Installation of evaporative coolers (a device which cools air through the evaporation of water). Evaporative coolers have significantly lower installation and operational costs than a conventional air-conditioning system.
iii) Use of sky-lights to reduce demand for artificial interior lighting.

4.2.3 WATER HEATING

It is generally accepted that heat pump provides the most efficient technology for water heating in the Western Cape. The installation of an Air-sourced heat pump or solar water heating system, or a hybrid (combination of both technologies) will be mandatory on all buildings.

Due to aesthetic considerations only 'split-system' SHW systems with a geyser located inside the building roof space will be allowed. SHW panels would be placed flush on the outside of roofs.

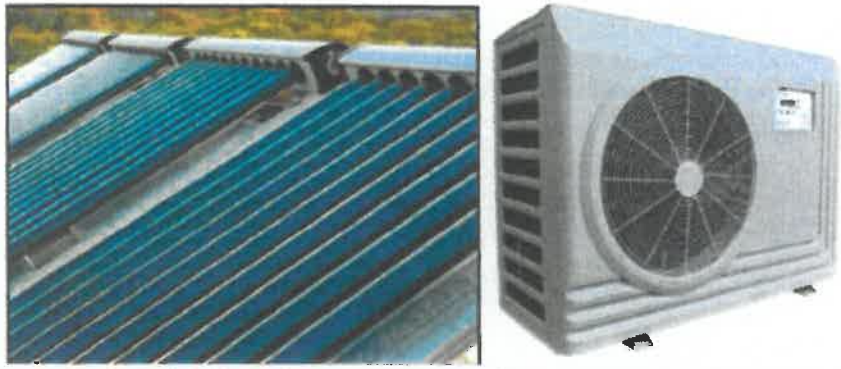

Figure 12: Typical 'split-system' evacuated tube SWH system (left) and typical air-source heat pump (right) http://www.archiexpo.com/.

4.2.4 GRID TIED RENEWABLE ENERGY GENERATION

The installation of a Grid-Tied Renewable energy system will be encouraged for all houses.

Grid-Tie renewable energy refers to the direct grid or utility Feed-In of instantaneous generated power through different sources such as wind (Wind Turbines) or sun (Photovoltaic Panels), which enables direct savings on electricity usage for the commercial sector which has the potential to contribute significantly towards the reduction of conventional energy sources. The technology allows for the renewable energy generated to be used locally, thereby reducing the demand on external energy sources.

4.3 WATER USE EFFICIENCY

It is recognised that it has become critically important that the efficient and appropriate use of scarce potable and non-potable water resources should be promoted and that alternative methods of water capturing and management be investigated. Water use will be addressed by managing water for private use (buildings and activities on private erven) and common use (private open space and associated amenities) by the HOA.

The sustainable use of water requires that:

i) Potable and non-potable water use, in general is reduced.
ii) Water is used responsibly for a specific application.
iii) Water is used efficiently at all times.
iv) Alternative water sources are used to their full potential.

4.3.1 MANDATORY WATER MANAGEMENT MEASURES

In order to promote responsible private domestic and common water use it is recognised that the use of potable municipal water for exterior purposes should be supplemented.

The following measures would be taken:

(a) Irrigation management: The following measures will be implemented:
   i) Plants in the landscape will be selected for their drought-resistant qualities and are to be separated into hydro-zones; where plants use the same amount of water.
   ii) The use of organic mulch is encouraged to minimize water loss due to evaporation.
   iii) The irrigation system will be designed to be energy-efficient and water-efficient.
   iv) Drip irrigation will be used in small, localized areas such as trees in paving or narrow plating flowerbeds. In larger areas, where sprayers will be necessary to ensure the area is water adequately; wind velocity will need to be taken into account in order to reduce excessive water use or loss.
   v) Weather stations will be installed to monitor seasonal fluctuations in rain fall so that the irrigation program can be adjusted accordingly.
   vi) The use of wireless rain sensors to regulate the irrigation system on a daily basis would be mandatory. Watering times will be regulated so that the irrigation system does not run during the hottest time of the day.

(b) Water use regulations: The following measures will be implemented:

i) Water Use Guidelines and Restrictions shall be determined and managed by the HOA.

ii) The guidance with regard to drought tolerant water-wise plants shall be adhered to.

(c) Internal water use: The following measures will be implemented:

i) The installation of water efficient fittings (e.g. dual-flush toilets, low flow showers, aerated taps) will be specified throughout all buildings.

ii) The use of water efficient appliances will be promoted.

The following measures are optional action to be promoted:

(a) Integrated Grey Water Recycling and Rainwater Harvesting Systems: The following measures are optional action to be promoted:

i) Buildings can be fitted with a suitable rainwater harvesting system, which would take the form of external water tanks, installed to catch rainwater from buildings' roofs.

ii) A minimum tank size of 5000 litres storage capacity per 100 m^2 of roof space will be recommended.

iii) Tank placement, design and screening should be indicated on building plans for approval in terms of these guidelines. The sloping site provides opportunity to place water tanks underneath buildings or stoeps where visual impact can be reduced.