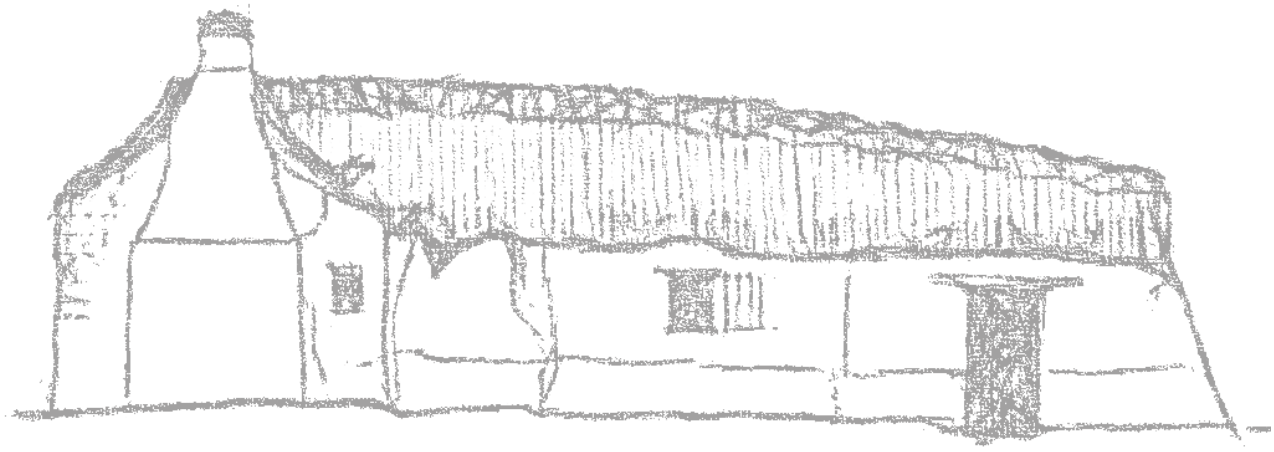

JAKKALSFONTEIN

PRIVATE NATURE RESERVE

DESIGN MANUAL

UPDATED EDITION: FEBRUARY 2021

Published by the Jakkalsfontein Homeowners Association

Jakkalsfontein Private Nature Reserve

Design Manual: Updated Edition: February 2021

The Design Manual is for the use and guidance of all property owners and their consultants when properties are developed, upgraded or maintained. It will be used to preserve the environmental and architectural standards and meet the conditions of approval granted in November 1990 by the Cape Provincial Administration and the West Coast District Council. The manual will be applied and managed by the Architectural Review Committee for the examination, approval and implementation of projects.

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Design Manual: Introduction

Commitment:

Jakkalsfontein is a private nature reserve where homeowners are committed to the conservation of coastal, marine, aquatic and terrestrial habitats, which underpins all future activities. Building design is guided by the ‘’design with nature’’ ethos to promote a typical West Coast character, using an interpretation of the vernacular fisherman’s cottage and manifesting an indigenous and environmentally conscious attitude to development.

The Jakkalsfontein Homeowners Association developed this Design Manual to identify principles that would define and promote the environmental and architectural character of Jakkalsfontein. Examples of existing significant design aspects are:

- The West Coast traditional building vernacular of fisherman’s cottages, which originally inspired the planning and architecture of Jakkalsfontein Nature Reserve.
- Housing clusters, placed along the sea front, separated by open areas, to avoid obtrusive siting of houses in the coastal landscape. The clusters therefore project a more rural identity, reflecting the absence of an urban component in the coastal Sandveld environment.
- The muted green roofscapes have been profiled to harmonise with the undulating dunes and vegetation.
- The familiar “bak-oond” shape of the chimneys, together with the shutters, gables and buttresses, reinforce the West Coast vernacular of the houses.

The design principles and commitment to nature conservation are entrenched in the conditions of approval attached to the rezoning granted to Jakkalsfontein in 1990 by the Cape Provincial Administration and the West Coast District Council. The Design Manual therefore gives practical expression to two overarching goals of the JHA: to achieve and maintain the nature conservation goals contained in its conditions of approval; and to protect the architectural integrity of the dwellings and other buildings. Achieving these goals will also promote and uphold mutual respect and harmony among homeowners.

The Design Manual forms part of the Jakkalsfontein Memorandum of Incorporation and consists of two parts:

- Part A sets out the building design rules, which must meet the rezoning conditions for the development of Jakkalsfontein, the provisions of the Land Use Planning Ordinance, as well as local, provincial and national bylaws and regulations. Swartland Municipality controls, regulates, and approves proposals made in terms of Part A.

- Part B describes the building design requirements specific to Jakkalsfontein. The JHA, through the Architectural Review Committee, will control and regulate the requirements contained in Part B.

Design Manual: Part A

To ensure that Jakkalsfontein adheres to the terms of the original approval and maintains a high standard of building design with the least possible impact on the environment, Part A keeps strictly to the theme of the originally approved scheme.

All architectural work must comply with the rules in Part A. These rules are in addition to the local authority laws and the National Building Regulations.

Property owners must obey all South African property and planning laws, statutes, bylaws, and other guidelines, regulations and rules that apply to property development and construction.

For this reason, all plans must be submitted for approval by both the JHA and the Swartland Municipality, with the recommended scrutiny fee.

1. Architectural Review Committee

The JHA must ensure that all development complies with the Manual. This function is carried out by the Architectural Review Committee (ARC), who manages the approval process. The ARC is a subcommittee of the Board of the Jakkalsfontein Homeowners Association.

ARC examines and approves plans, applies the requirements of the Design Manual and the Jakkalsfontein Rules and Regulations to all building and infrastructure projects, ensures that the environment is preserved from a development perspective, and that the conditions of approval and nature reserve status are upheld.

ARC acts as an advisor to all property owners who may wish to discuss aspects of their projects.

ARC, on behalf of the JHA, may adjust, change and update the Design Manual from time to time as deemed necessary. Changes must be approved by both the JHA as well as the Swartland Municipality.

Every year the Board appoints the members of ARC. The committee comprises at least three standing members:

- The Jakkalsfontein Infrastructure Manager, *ex officio*
- A professional architect, selected and appointed by the Board
- At least one member of the Board

ARC must approve project plans in terms of the Design Manual before a home owner can submit to the Swartland Municipality for its approval in terms of the National Building Regulations.

All plans must be approved by Swartland Municipality before construction work on site may commence.

The owner or his/her architect or professional is to ensure that plans submitted are in accordance with the current Design Manual.

Approval of drawings by ARC carries no guarantee concerning the adequacy of the design or structural suitability of the proposal. ARC's approval is limited to the aesthetics and design standards outlined in this Manual and any further requirements of the JHA.

ARC monitors the progress of the building work until the completion of the project, to ensure that the work is done in accordance with the regulations contained in the Design Manual.

The Swartland Municipality monitors the progress on site in terms of the National Building Regulations.

2. Submission of building plans

Building plans must be submitted by the owner of a property to ARC for scrutiny. If approved, they will be endorsed with a stamp in accordance with the requirements of Swartland Municipality.
A land surveyor's diagram indicating existing levels is to accompany the drawings for new buildings and for extensive alterations.
Approval of building plans in terms of the Jakkalsfontein Design Manual and the rules of the JHA rests with ARC.
Once approved by ARC, the applicant is to submit construction drawings to the Swartland Municipality for their approval in terms of the National Building Regulations.
Plans will only be accepted by the Swartland Municipality; if they have been stamped, signed and recommended for approval by ARC.
That approval will be the final one and construction on site can commence after that.
Work that does not commence within one year of the relevant plans being approved will require a re-submission, or a new submission. This is standard procedure for all municipalities.

3. Design criteria

Notwithstanding anything contained in this Manual, all building procedures must comply with the National Building Regulations. Only Swartland Municipality may give approval of compliance in terms of the National Building Regulations. The ARC may consider waivers of any of the provisions contained in this Manual under special circumstances, where such waivers are recommended by the ARC and are approved by Swartland Municipality, whose decision is final.
Decisions by previous Jakkalsfontein Building Committees may not be relied on if inconsistent with the Design Manual; i.e., precedent will not apply.

Where deviations from the Design Rules Manual Part-B are requested, written agreement to these waivers is to be obtained from the immediate adjoining homeowner(s). These agreements must accompany the plans when they are submitted to ARC for scrutiny.

Prior to submission of building plans for scrutiny by ARC they are to be shown to adjoining owners as a matter of courtesy, for their comments. These comments are limited to the elevation of the adjoining common boundary. These comments will be considered when reviewing the plans; however, approval by ARC may not be unduly withheld if the plans comply with the Design Manual. Drawings/plans are to be signed by the adjoining owner(s) or their appointed representative(s) as having been seen.

4. Cadastral boundaries: Street boundaries

The street boundary is the boundary which faces the street and is a boundary from which vehicle access is gained to the erf. Where a side boundary projects at the end of a cluster and faces the street this portion becomes a street boundary (refer side boundary above).

A property or erf may have vehicle access only from one boundary.

5. Cadastral boundaries: Rear boundaries

A “rear boundary” of an erf is every boundary of such erf (except the street boundary) which is parallel or within 45º of parallel to each street boundary of the erf and which does not abut the street boundary, except, at the south and north ends of clusters.

The sea-facing boundaries: The sea-facing boundary is normally a west boundary and should not be more than an angle of 45º from the general coastline which we assume to be North/South.

6. Cadastral boundaries: Side boundaries

The side boundary is the boundary between two (2) adjoining erven or where such erven abut or face the commonage. Where a side boundary projects at the end of a cluster and faces the street, this portion becomes a street boundary (refer street boundary below). See Figures 1 & 2.

Where a side boundary (as defined) projects beyond the side boundary of an adjacent erf, the section that projects and therefore faces commonage will be classified neither as a ‘side boundary’ nor a ‘sea-facing boundary’ but will be subject to a ruling by the owner of the commonage (i.e. the JHA) dependent on the building design as submitted for approval.

In the event of a disagreement regarding the designations of any boundaries, particularly the street and sea facing boundaries; ARC’s determination will be final.

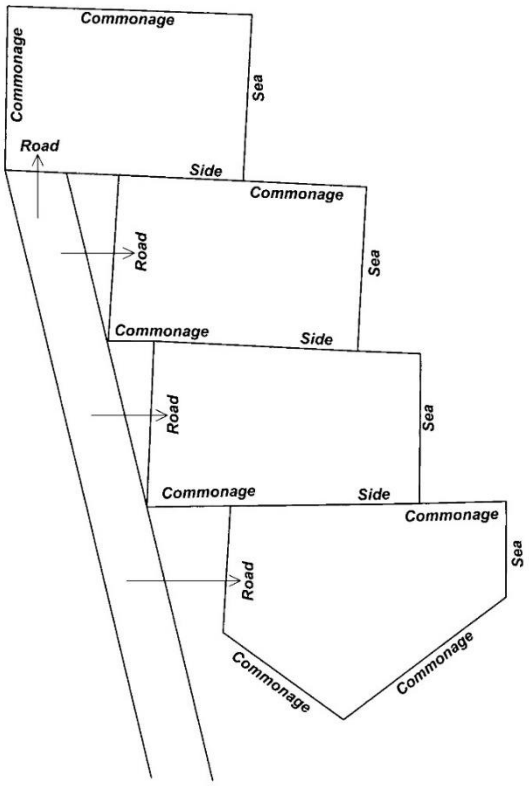


Figure 1: Cadastral boundaries

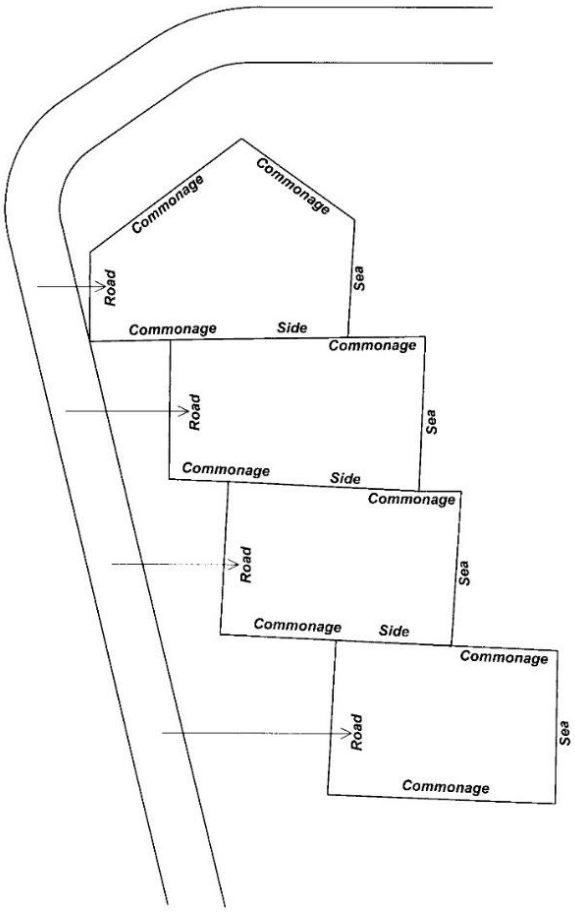


Figure 2:. Cadastral boundaries

7. Coverage

The maximum allowable coverage of all roofed building is specified as a percentage of the area **within the building lines** of the stand. This is 75% on single erven and 40% in the case of consolidated erven. These calculations are to be indicated on drawings.

Respect must be given to adjoining neighbour's privacy in setting out the house design, with special reference to skylights and dormer roof windows.

The JHA's approval is required before consolidating any properties.

Off-street parking, which includes garages, is to be provided for at least two (2) cars on each site.

8. Building lines: Phase 1, 2A and 2B

Building Line Phase 1: There is a 1000-mm building line to all boundaries.

Building Line Phase 2A & 2B: There is a 5000-mm building line on the sea-facing boundary.

2A & 2B shall include:

- Cluster Kingfisher - portion: 126, 129, 132, 133, 199, 200, 201, 202,
- Cluster Plover - portion: 134, 137, 138 and
- Cluster Tern - portions: 139, 140, 141, 142, 143.

Any dispute as to whether a building line is in fact a sea-facing building line or not, or whether a street boundary is in fact a street facing, side or rear facing boundary or not, shall, in the final analysis, rest with ARC.

Garages and outbuildings may be built over a side building line, provided the adjoining neighbours' consent in writing is obtained and submitted to ARC with the submission plans.

A garage may not be built over the side building line if the adjacent property's garage is already over its building line. If this consent is given, no portion of the roof, e.g. gutter, eaves and the like, may project beyond the boundary. Habitable accommodation may not be built on the boundary.

On a street facing boundary, the length of continuous building parallel to the street may not exceed 75% of the length of boundary measured between building lines, unless part of the building is set back a minimum of 2500 mm.

Boundary walls on side boundaries are to terminate on the sea-facing building line.

The designation of boundaries in terms of figures 1 & 2 must be shown on the plans.

9. Building lines: Consolidated erven, Phases 1, 2A and 2B

- Sea-facing building line, 1000 mm or 5000 mm where applicable.
- Street facing and rear boundaries, 1000 mm.
- Side boundaries, an aggregate of 5000 mm with 2000 mm minimum to one side, excluding portion No's 10, 11 and 203 where a 1000 mm building line applies.

Any dispute as to whether a building line is in fact a sea-facing building line or not, or whether a street boundary is in fact a street facing/side or rear facing boundary or not, shall, in the final analysis, rest with ARC.

Garages and outbuildings may be built over a side building line, provided the adjoining neighbours' consent in writing is obtained and submitted to ARC with the submission plans.

A garage may not be built over the side building line if the adjacent property's garage is already over its building line. If this consent is given, no portion of the roof, e.g. gutter, eaves and the like, may project beyond the boundary. Habitable accommodation may not be built on the boundary.

On a street facing boundary, the length of continuous building parallel to the street may not exceed 75% of the length of boundary measured between building lines, unless part of the building is set back a minimum of 2500 mm.

Designation of boundaries in terms of Sections 4, 5 & 6 must be shown on the plans.

10. Site (ground) levels: Finished levels and floor levels

Site levels are to remain as originally terraced.

If the original terrace has been disturbed a platform level is to be agreed with ARC prior to any building operations. No imported fill may be brought onto Jakkalsfontein or private properties without ARC consent.

"Finished ground level" is defined as the cleared site to the level of the surveyed platform. A site plan showing the surveyed platform level and foundations are to be included with the plans.

"Floor level" is defined as being 300 mm above finished ground level. If the original platform has been eroded and the ground level varies by more than 300 mm, the site is to be shaped to conform. This may require "Cut and fill", defined as the redistribution of the soil on the erf to obtain the required levels. The new finish ground level is to be determined with the ARC before any soil redistribution is undertaken.

11. Wall and roof heights

Wall-plate: Maximum wall-plate height (top) above finished floor level is 2800 mm. When a concrete attic slab is used the top of the concrete slab shall not be higher than the wall plate height.

Roof: Maximum height to the apex of the ridgeline is 6150 mm from the existing finished ground platform level, or the mean natural ground level immediately below it.

12. Interior planning, design and finishes

There are no restrictions on interior design and finishes; but plans must be submitted with the recommended scrutiny fee for approval by both the Jakkalsfontein Homeowners Association and the .Swartland Municipality.

13. Buttresses

Buttresses must be structurally incorporated at all corner gable ends, including garages and outbuildings, and on either side of the main door access (front entrance door) when visible on the street side. The base of the buttress is not to protrude more than 600 mm at ground level. (See Figure. 3: Buttresses)

Buttresses if built over the building line require the affected neighbours' written consent.

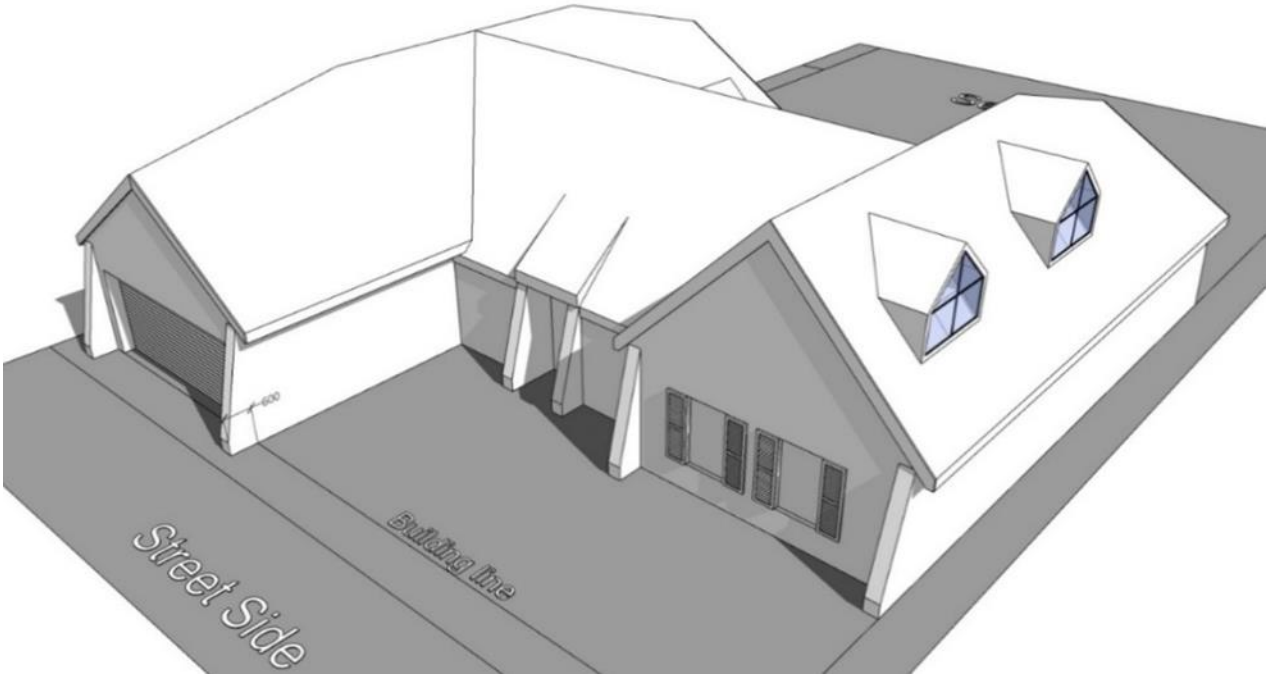


Figure 3: Buttresses

14. Attic rooms

"Attic" is defined as usable area created above the ground floor within the envelope of the roof.

Attic accommodation may be provided within the parameters of the height of the house. The floor area of this accommodation is to conform to the National Building Regulations regarding natural ventilation and light.

Where an attic occurs above an outbuilding (i.e. garage, storerooms, staff accommodation etc.) the height of the roof of the proposed outbuilding may not exceed the maximum height of the apex of the ridgeline of the main roof of the dwelling. The geometry of the roof must also be taken into consideration.

Respect must be given to adjoining neighbours' privacy in setting out the house design, with special reference to roof windows and dormer roof windows to attic spaces.

15. Exterior house walls: Finishes and colour

Exterior house walls to be plastered and light stippled, and painted as specified under Section 31 (Exterior Colours).

16. Door and window sizes and placement

Doors and windows are to conform to the window/door schedule as attached. No other door or window will be permitted.

Parliament and butt hinges are permitted where wooden doors as opposed to sliding doors are utilised.

Consideration must be given to size and placement of windows facing on to boundaries in order to respect the privacy of adjoining neighbours.

Definition: “Area as a percentage of a given wall” is defined as area of the wall below the wall-plate level and does not include the area above the wall-plate level as in the case with gable ends.

The integrity of the “wall dominated architecture” is to be retained and windows/doors to be a maximum of 45% of a given wall. However, the total area of windows/doors on sea facing elevations is not to exceed 70% of the wall area, calculated in square metres (m²) and must be indicated on drawings. The area of each gable is calculated separately and the infill area with tiled fringe is calculated separately, if it is not on the same plane as the gables. (See Figure 4: Window and door elevational area.)

The final decision in a dispute as to whether an elevation is a sea-facing or not, shall rest with ARC.

Top-hung-opening-out fanlights in widths of 1200 mm, 1800 mm, and 2400 mm will be allowed on any elevation, providing that the percentage of window to wall areas conforms to the Design Manual rules.

Fixed panes may be used in windows, providing that room ventilation requirements meet the requirements of relevant local authority and National Building Regulations.

Sliding doors: Maximum opening width of 4800 mm, made up of either a 3000 mm sliding door and two (2) x 900 mm side lights or two (2) x 2400 mm sliding doors coupled together will be allowed on the sea-facing elevation. The rules further limits the number of 2400 mm openings to two (2), separated by a 1000 mm minimum brick pier on any single wall plane, and subject to a maximum of 70% of such wall plane. Maximum size of window or sliding door combination in a sea-facing gable wall is limited to 3000 mm.

Main Front Door: The main front/entrance door to be a single external door panel D1, D2, D3, D4 or D5 and may be coupled to a side light as per the door schedule (External Doors). Full vision single or double panel doors D6 may not be used as the main front entrance door. Subject to approval by the ARC, the width of the front door may be increased to 1000 mm maximum.

Figure 4: Windows and door elevational area – sea facing

17. Door and window finishes

Painted timber, powder coated aluminium or UPVC window and door frames and panels may be used.
Only clear glass is allowed on the inland and road facing elevations, except on bathroom windows, where sand blasted or “pacific” obscure glass may be used.
Grey tinted, non-reflective glass may also be used in lieu of clear glass. The specification for this glass is to be indicated on the plans for approval by the ARC.

18. Dormer and roof windows

Dormer windows to conform to the window schedule as attached. No other size or type will be allowed.
Dormer or roof windows may be used on all elevations but must respect adjoining neighbours’ privacy. Roof windows (unlike dormer windows) must be set flush with the plane of the roof.
The aggregate width of dormers/roof windows must not exceed 30% of the length of a single roof plane measured at the midpoint between ridge and eaves.
A maximum of eight (8) dormer and or roof windows cumulatively per home is allowed.
Dormer window surrounds must match the Jakkalsfontein standard slate green roof tiles.
Sandblasted or ”Pacific” obscure pattern glass must be fitted to all dormer and roof windows on side facing elevations in order to protect the privacy of adjoining neighbours.
The top ridge of dormers may not be higher than 250 mm below the ridge line of the roof from which they protrude. The sills of dormers must be at least 530 mm above bottom tile of the eaves of the roof from which they protrude.
Dormer windows of a similar size only are to be used on a particular elevation/roof plane.
Horizontal sliders may be fitted to dormer windows in lieu of top-hung-opening-out panes.

19. Shutters

Shutters must conform to established design detail (See Figure 5), and refer to the window/door schedule. Shutters must be fitted to all windows on road facing elevations where such windows are visible from the street. Where windows on side elevations are also visible from the commonage, such elevations must also be fitted with shutters.
Shutters are not required with sliding doors. (New rule)
Shutters may be constructed of timber or powder coated aluminium.
Fixed or functional shutters may be fitted. However, where functional shutters are fitted, retaining catches must be corrosion proof.
Shutters, whether functional or non-functional, must conform in size relative to the window sizes to which they are attached. (See figure 5: Shutters.)
Bi-fold shutters will not be permitted.

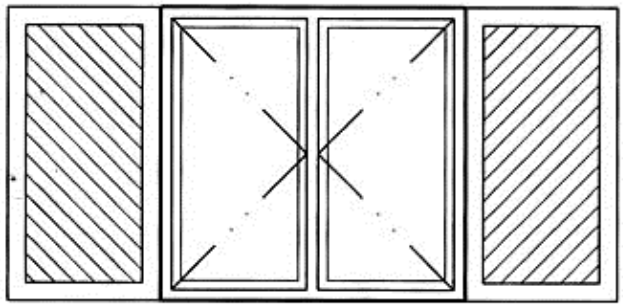


Figure 5: Shutters

20. Vents

Vents whether functional or not, must be fitted in the walls on the gable end of roofs, except where a window is required for attic space. This window size is to be agreed with the ARC.

Standard size for vents is 600 mm x 300 mm.

Vents must have horizontal slats and must be finished in “Pineywoods Green” according to specification (see section 31: Exterior colours). Vents may be constructed of timber or power-coated aluminium.

21. Roofs, pitches, shape and ridge lines

Roofs can include major (pitched) and minor (flat) roof elements, the widths of which shall be controlled. Major roof elements shall have a maximum width at gables of 6700 mm and minor roof elements where ‘afdak’ occurs should not be more than two thirds of the primary width unless between two major elements. (Refer to figure 16).

Major (pitched) roof elements

Roof contours are to emulate the “dune” shapes: ridges must be sloped rather than level where possible. Roof pitches may be a maximum of 45° or a minimum of 30°.

A roof must accommodate sloped or curved ridges to all gable ends except gables on the main building facing the street that fall behind an outbuilding on the street. (Refer to Figure 16). (Altered rule)

No gable walls to project above roof. (Refer to Figures 6 and 7).

No roof slope/curve can start further from the end gable wall than the apex of the nearest cross roof or dormer window.

The length of the slope/curve where the truss angle changes by 15º is to be a minimum of 5000 mm. (Refer to Figure 6).

The length of any sloped/curved roof where the truss angle changes by 10º is to be a minimum of 3000 mm. (Refer to Figure 7).

No dormer windows, roof lights or solar panels may be placed in roof planes with ridges that are sloped or curved. (Refer to Figures 6 and 7).

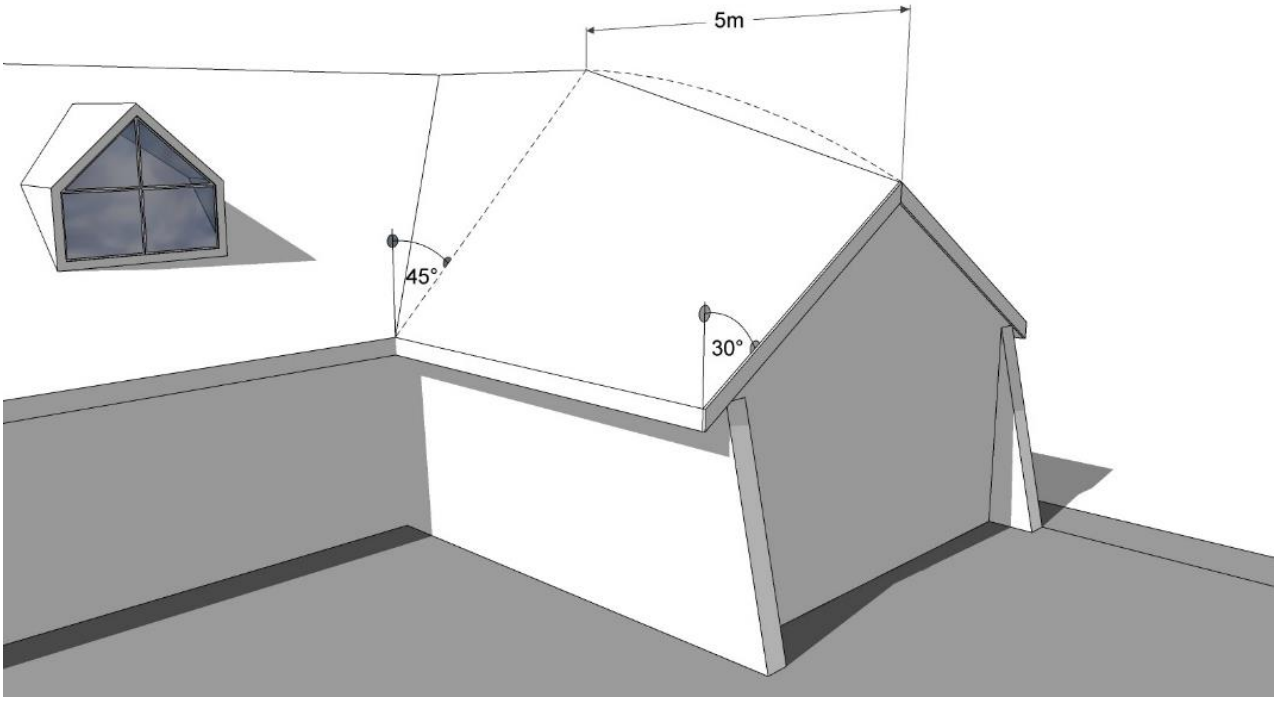


Figure 6: Ridge slope on roof with 30° pitch

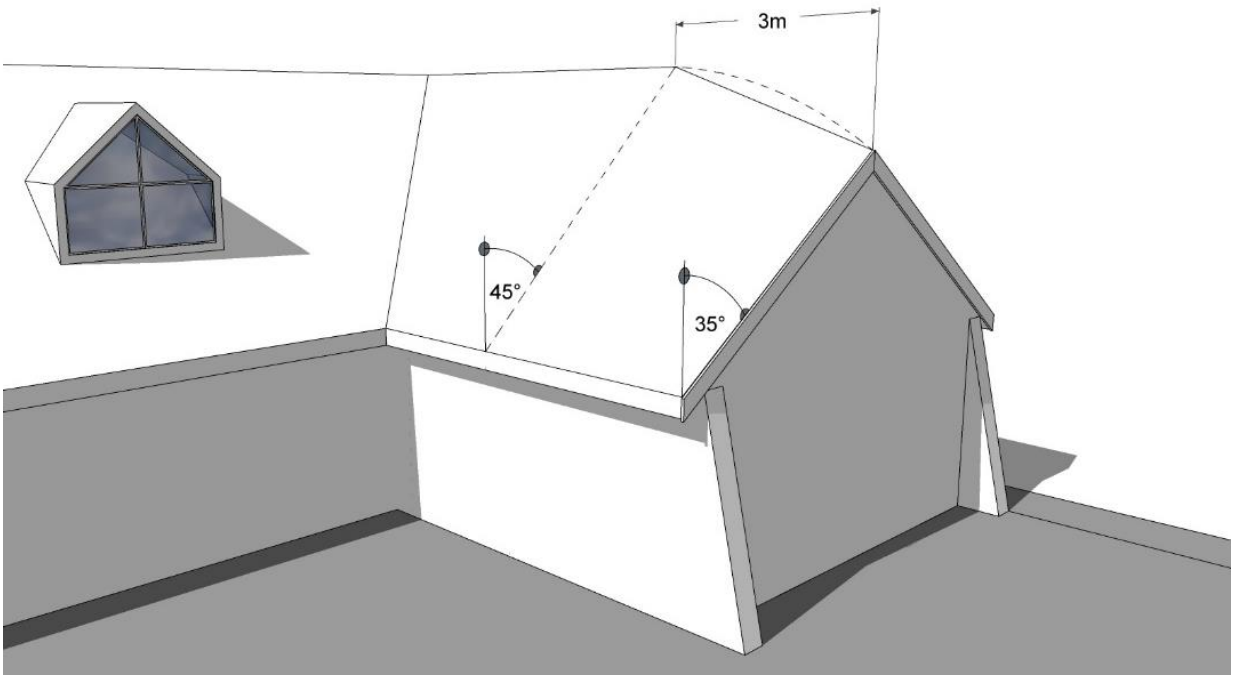


Figure 7: Ridge slope on roof with 45° pitch

Notwithstanding the provisions contained in sections 8 & 9 (maximum length of building parallel to the street), the length of a continuous single roof parallel to street boundary is limited to a maximum of 18 metres overall, including shaped ends.

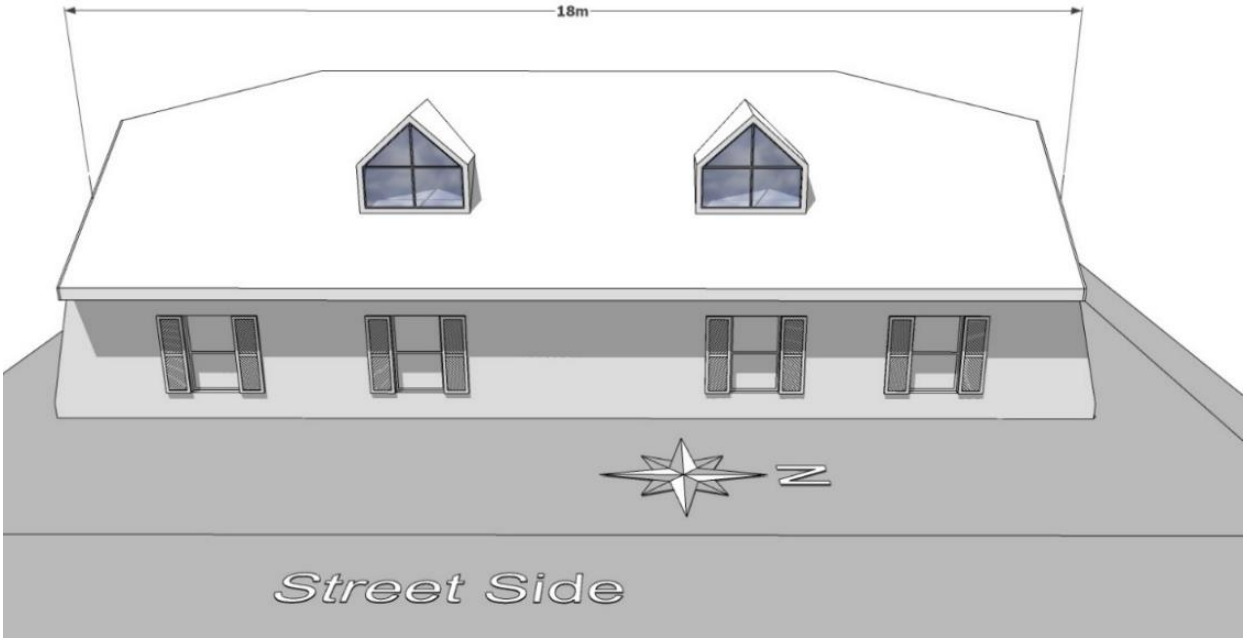


Figure 8: 18 m limit to any single house roof, parallel to the street including sloped or hipped ends.

Should the roof exceed 18 metres in length it is to be interrupted by a projecting wing. This is measured from the midpoint of the roof. Projecting wings are to be a minimum of 500 mm from the edge of the roof. See Figure 9

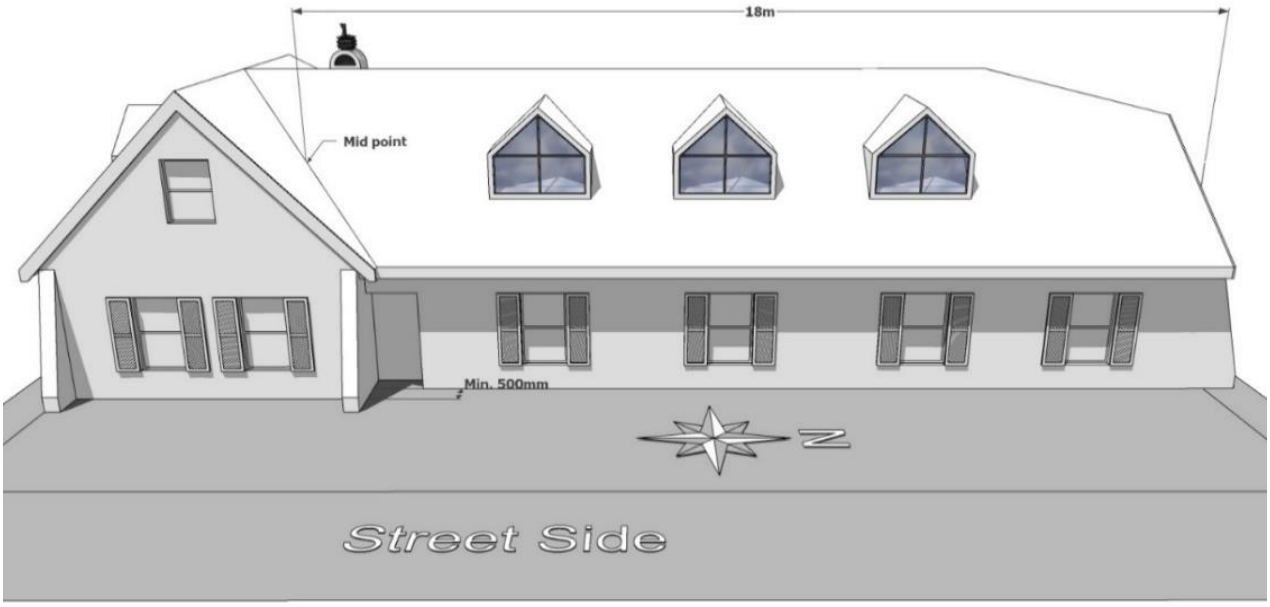


Figure 9: Single house roof length limit, parallel to the street with projecting wing.

22. Pitched roof finishes

Pitched roofs to be tiled with 610 mm x 400 mm x 6.5 mm Everite (or equal) approved, fibre cement slates with mitred corners. Colour to be “Slate Green” EMB19 (International Colour Code). Colour must be matched and approved by ARC with colour samples which are available from the JHA admin office.

23. Fascia and gutters including finishes

Fascia and bargeboards may be constructed of white UPVC with solid ends, pine or solid hard wood painted white.

Where possible the fascia and gutter of the fringe must line up adjacent fascias, and gutters of the pitched roof of the wings. The 45° fringe eaves projection must be 300 mm wide its fascia board must be set back a minimum of 150 mm from gable wall faces of the adjacent wings. In other words, the new patio enclosure wall and its parapet need to be set back enough from the gable faces in order to achieve what is indicated in Figures 10 and 11.

The maximum height of the fringe to be 3000 mm above finished floor level. (Refer to Figure 11).

24. Minor flat roofs and ‘Afdakke’

All flat roofs must be constructed of concrete with suitable waterproofing and enclosing parapets. 45° tiled fringes must be applied to all sea facing flat roofed areas and elsewhere if required. ARC will make a final determination where fringes are and are not required. (Refer to Figures 10 to 12 for sea facing and Figures 13 to 17 for other flat roofs).

Extensions to a U-shaped recessed area to enclose a patio (generally sea facing) must be constructed with a flat concrete roof with a parapet. The parapet must be concealed by a 45 degree tiled fringe. (Refer to Figures 10 and 11).

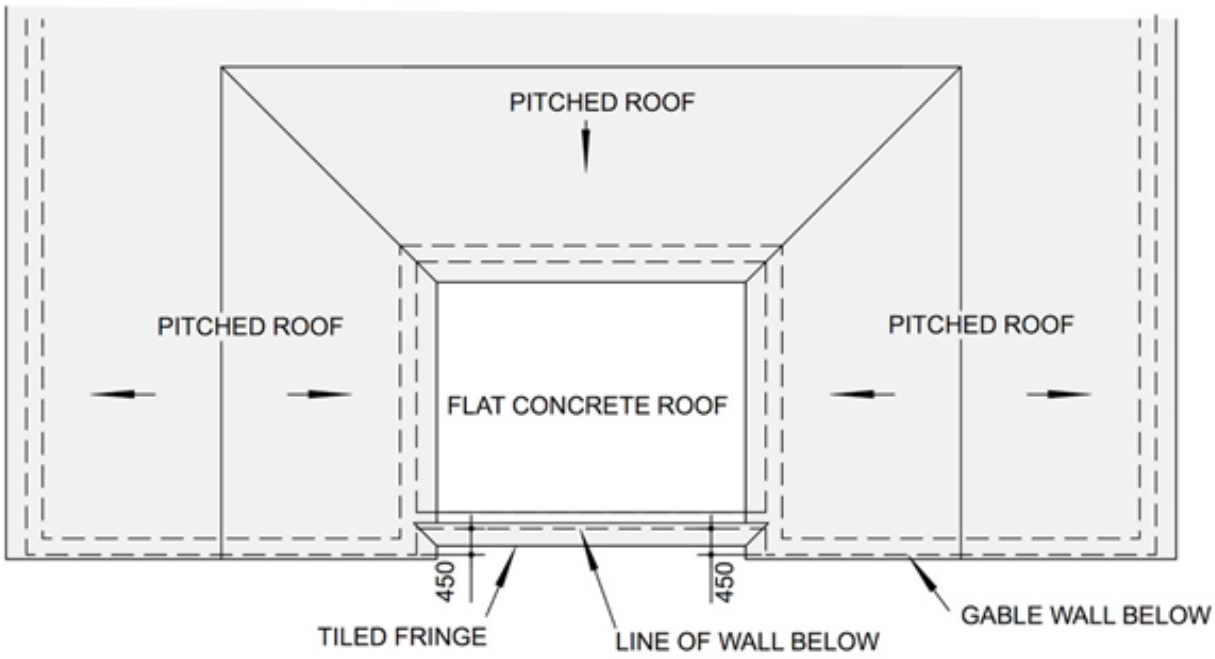


Figure 10: Plan view of flat roof with fringed edge between wings with gable ends.

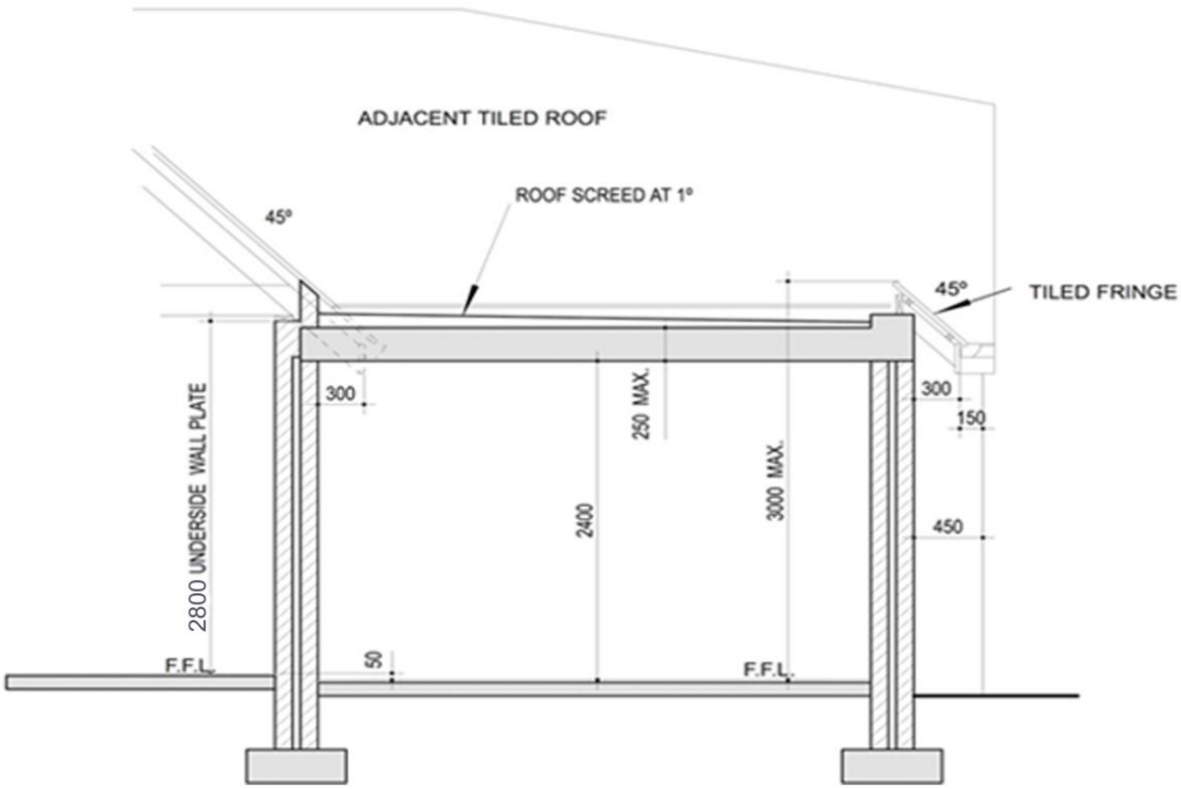


Figure 11: Typical section through Figure 10 - Flat roof with fringe between or butting against gabled wings.

When an extension is from an 'L' shaped recessed area to enclose a patio (generally sea facing), this area may be enclosed by a flat concrete roof, ideally with the outer wall face set back 450 mm from front face of the adjacent gable wall and concealed by 45 degree tiled fringes on all sides.
(Refer to Figures 11 and 12).

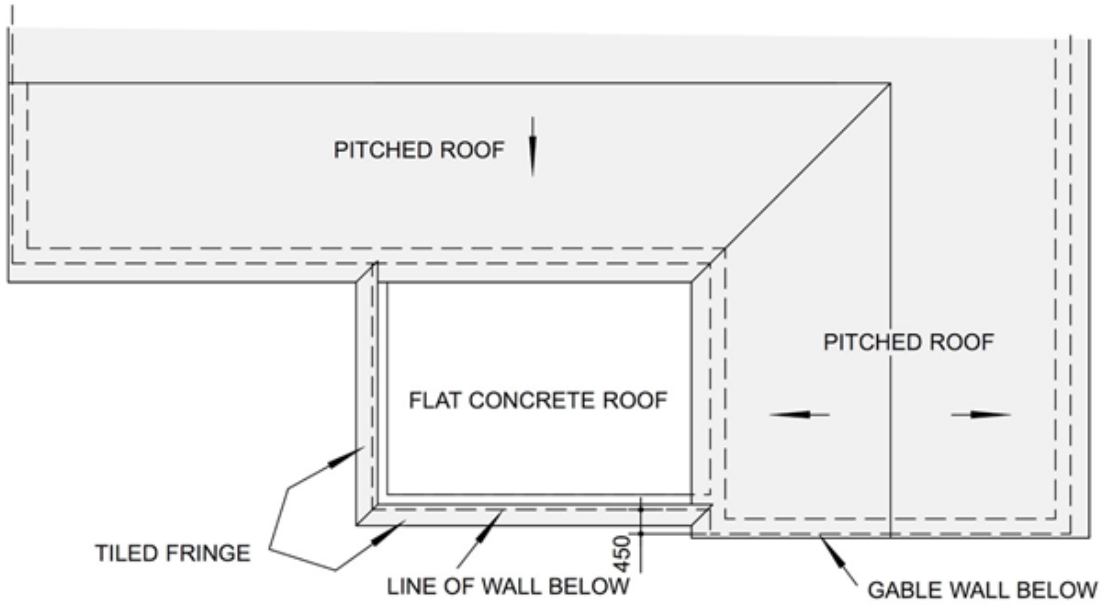


Figure 12: Typical flat roof with fringe set in the corner of an L shaped main pitched roof building.

Where a fringe is to overlap the gable wall it must overlap the gable wall by 720 mm, in order that the fringe abuts the gable below the barge board above.
(Refer to Figures 13 and 14).

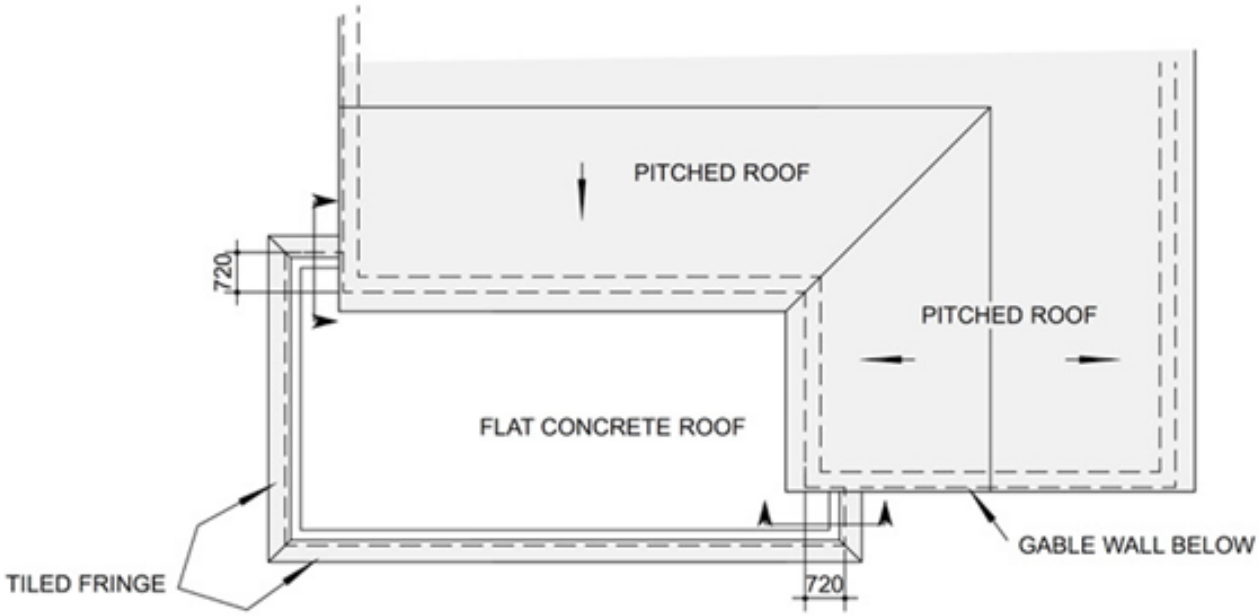


Figure13: Typical arrangement of a flat roof extension which protrudes beyond an L-shaped pitched roof.

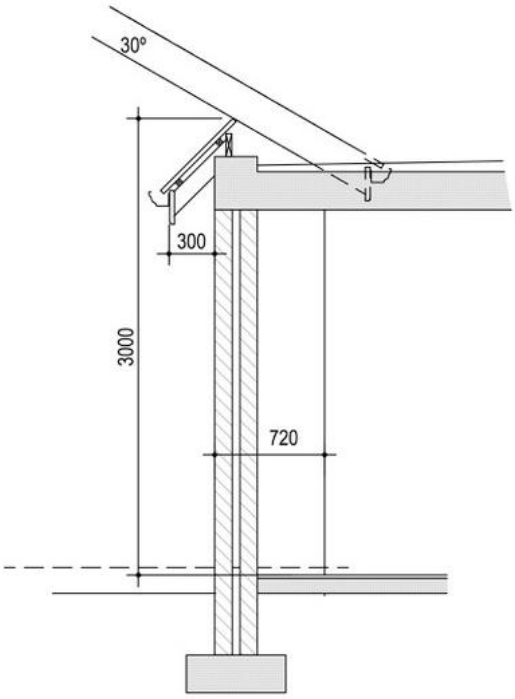


Figure 14: Typical alignment of a fringe and a barge board at the junction where a flat roof area overlaps the gable or wall of a main pitched roof building. (Refer to Figure 13).

When an extension from an L shaped recessed area (generally sea facing) is to be enclose and where one gable end is situated on a side building line, the area may be enclosed by a flat concrete roof providing that the wall of the flat roof section is set back 450 mm from the gable end situated on the building line.

(Refer to Figure 15).

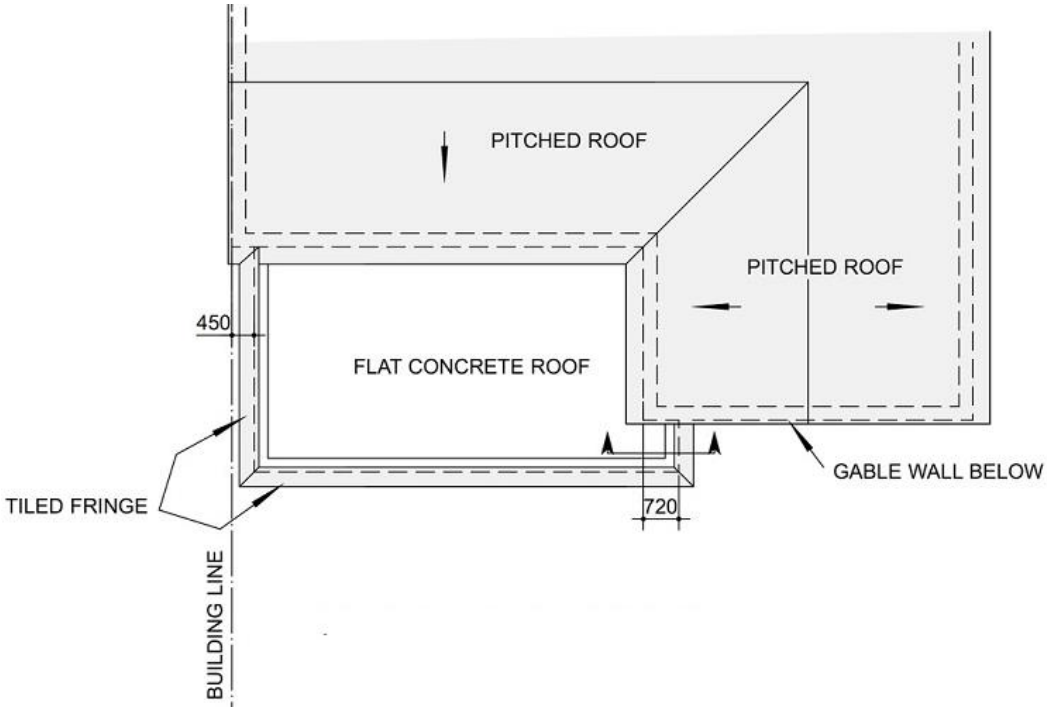


Figure 15: Typical relationship of flat roof extension to an L-shaped pitched roof area which has a gable on the side building line.

Flat roofs other than those facing the sea.

Note: No “fringes” will be allowed on flat roofs on the road side of a house unless it is agreed with ARC and the JHA’s consulting architect that very specific circumstances require their use.

(Refer to Figures 16, 17,18 and 19.)

Where a flat roof is situated between the gables of two pitched roof sections, the walls off the flat roofed area are, where possible, to be set back 300 mm from the edge of the abutting gable walls so that the parapets of the flat roofed area are accommodated below the barge boards of the gables. (Refer to Figures 16, 17and 18).

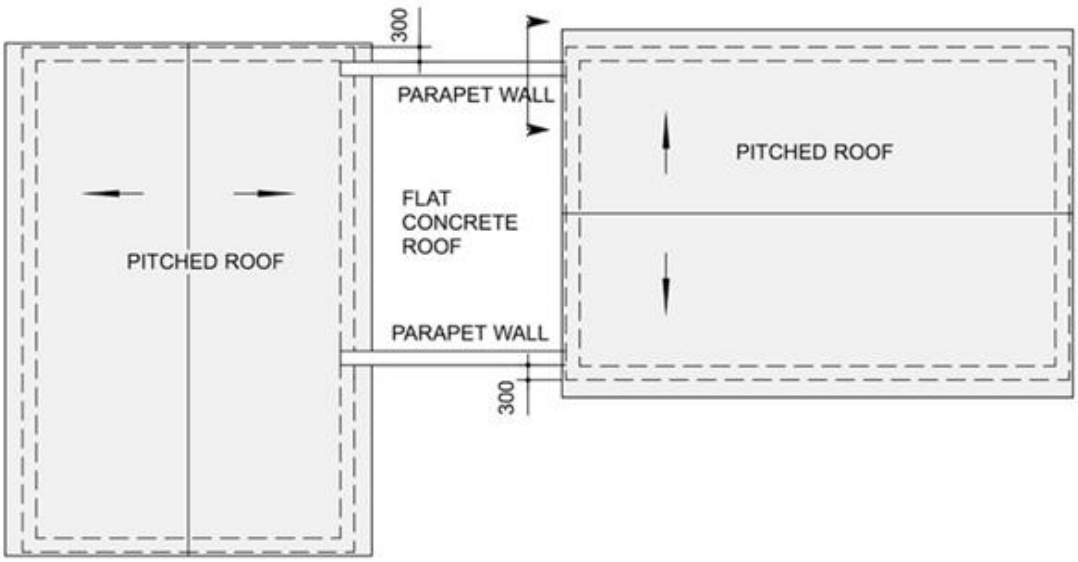


Figure 16: Plan detail of typical flat roof situated to the side of a pitched roof and abutting a gable.

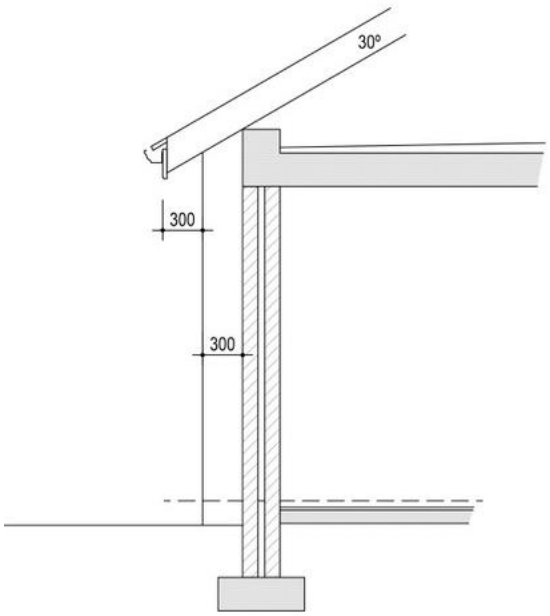


Figure 17: Detail section of the relationship between parapet and barge board as indicated on Figure 16.

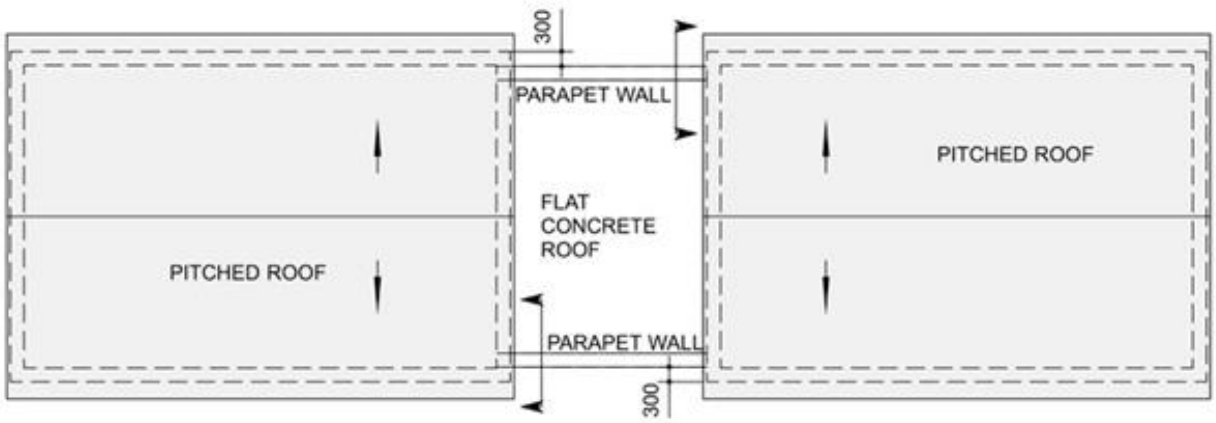


Figure 18: Typical relationship of a flat roof situated between the gables of two pitched roofs.

Where an extension occurs to the side of the pitched roof of an outbuilding or single garage this must be constructed with a flat concrete roof with parapets on 3 sides, the side walls are to be set back 450 mm from the gable walls. Please note the maximum required width proportions for a flat roofed side extension to a pitched roof building. (Refer to Figure 19).

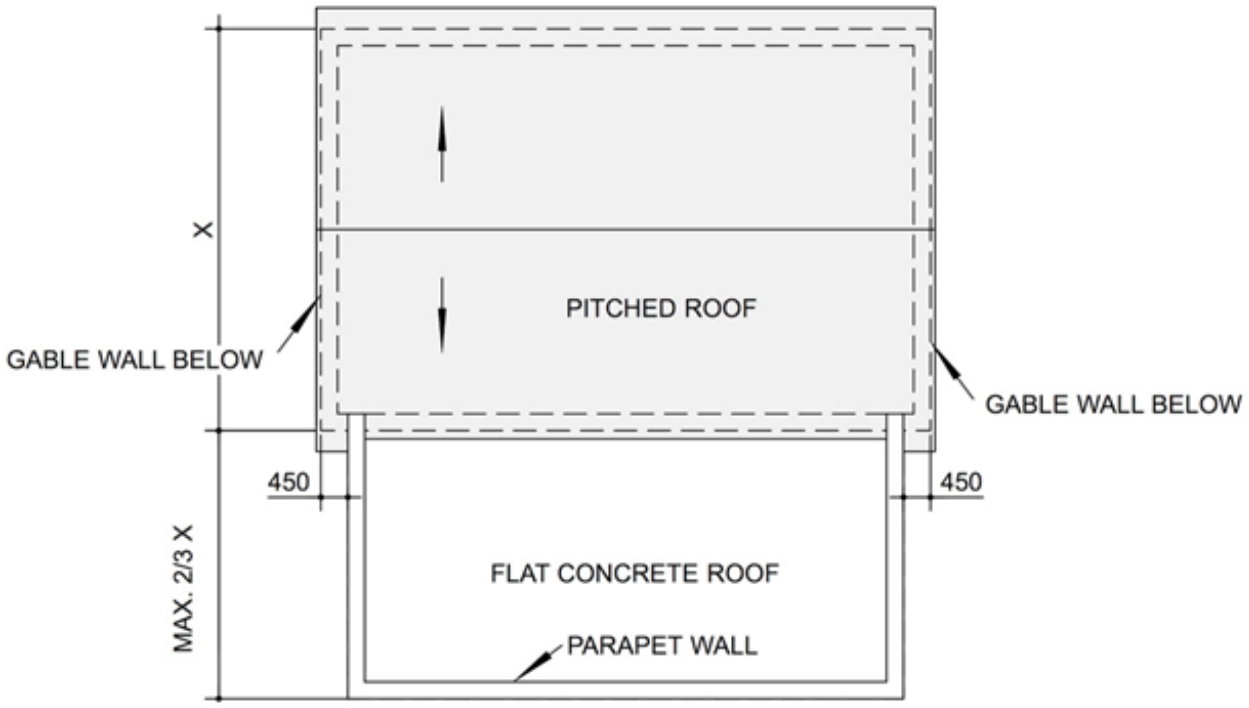


Figure 19: Typical arrangement of a flat roof situated to the side of a pitched roof showing parapets on 3 sides, set back of walls and maximum width relationship to the adjoining pitched roof building.

Roof lights are permitted in flat roofed sections, provided that they are totally obscured by parapets or a 45° tiled fringe.
Rainwater to be drained to full bore outlets on flat roofs situated behind fringes and parapets.

25. Balustrades

Balustrades will be allowed on sea-facing decks where the deck is higher than 600 mm above natural ground level. A balustrade, with a maximum height of 1000 mm, is to be designed to conform to the design of the resort centre boardwalk balustrade and may be constructed either of timber or aluminium and must be finished in either white or “Pineywoods” Green.

26. Pergolas, Gazebos and awnings

Pergolas and awnings must conform to design detail in Figures 20 to 23 and must be constructed from white, painted, hardwood timber or white, powder coated aluminium. (Altered rules)

Pergolas may only be fixed to the walls below the fascias (Refer to Figure 20), unless there are special circumstances where this cannot be achieved. (New rule)

Pergolas must be constructed from white powder coated aluminium or white painted hardwood.

The braces to supporting posts must be flush and form an angle of 45° with both the upright and the fascia.

If the pergola is supported between two walls, 'dummy' supporting posts and 45 degree braces are to be utilised. (Refer to Figure 21)

Retractable awnings (including aluminium swing arm awnings that may be motorised), coloured beige, green, white, or with green and white/beige stripes may be fitted. Awnings may be constructed of canvas or shade cloth. Sample of material to be submitted to ARC for approval.

No steel, aluminium or polycarbonate sheeting may be used to roof a pergola structure.

The tops of pergola sub-members to be on the same plane as the main members.

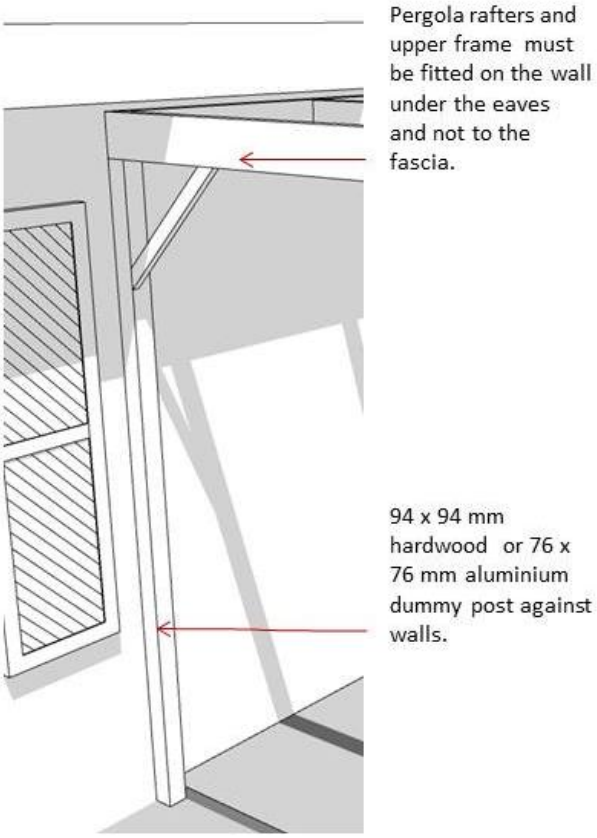


Figure 20: Pergola wall fixing.

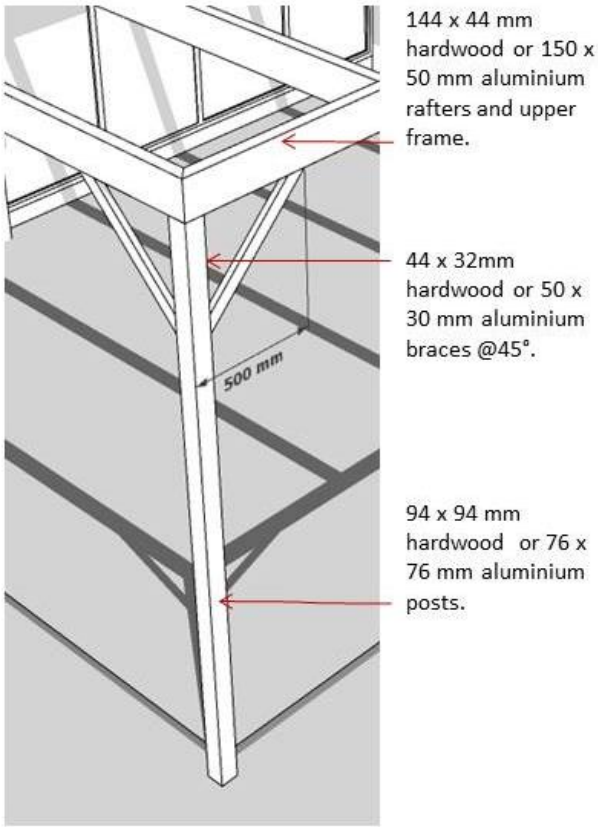


Figure 21: Pergola post detail

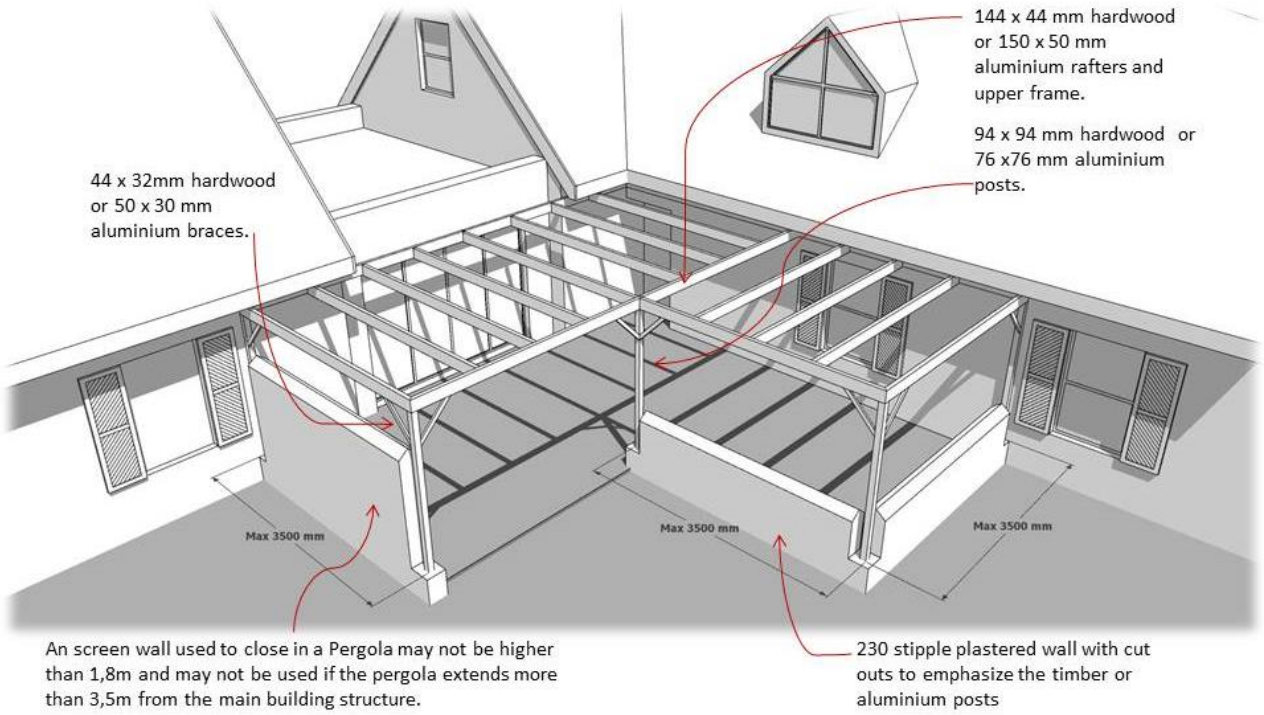


Figure 22: Typical pergola on the street side with masonry screen walls incorporated.

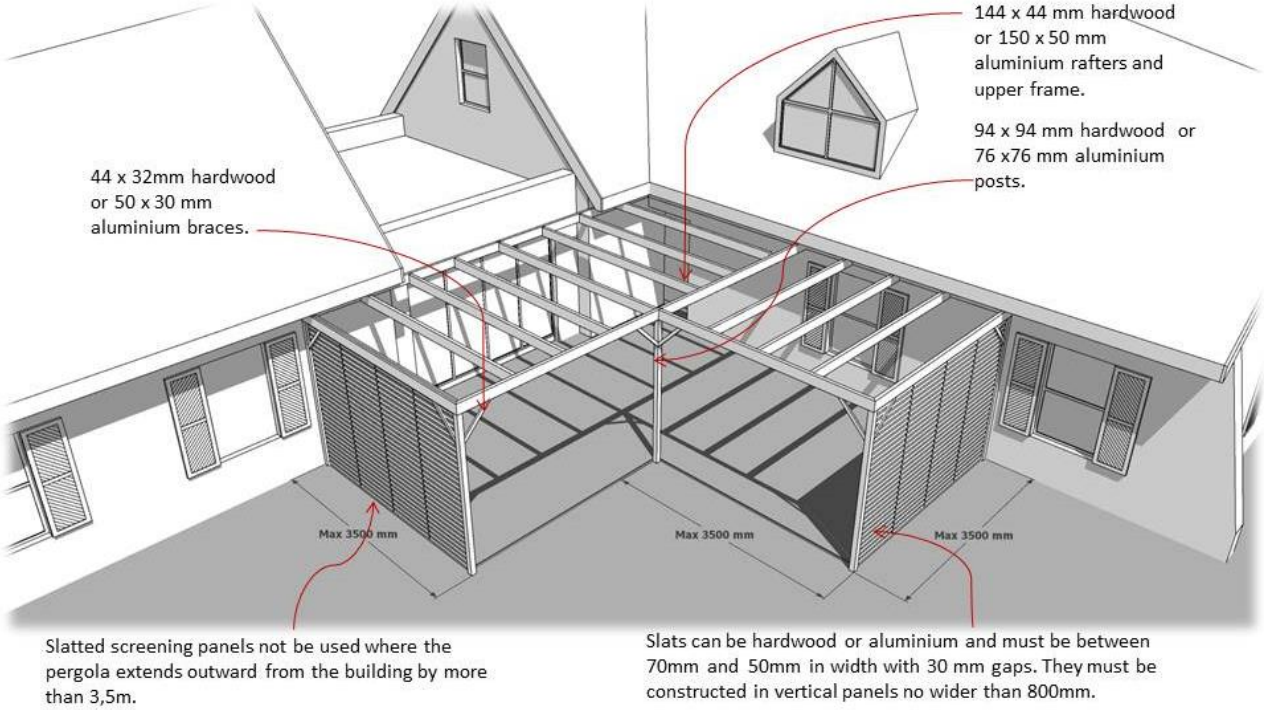


Figure 23: Typical pergola on the street side with timber or aluminium lattice screens incorporated.

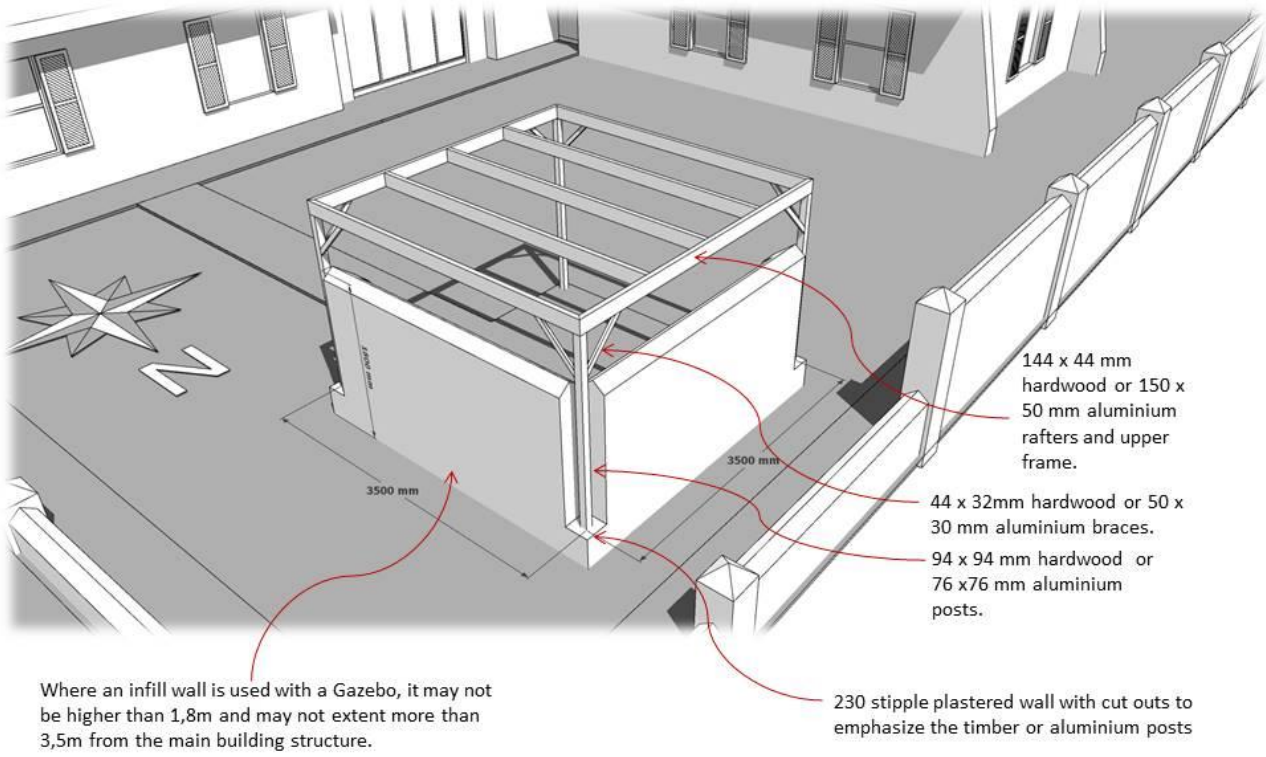


Figure 24: Typical gazebo with masonry screen walls incorporated.

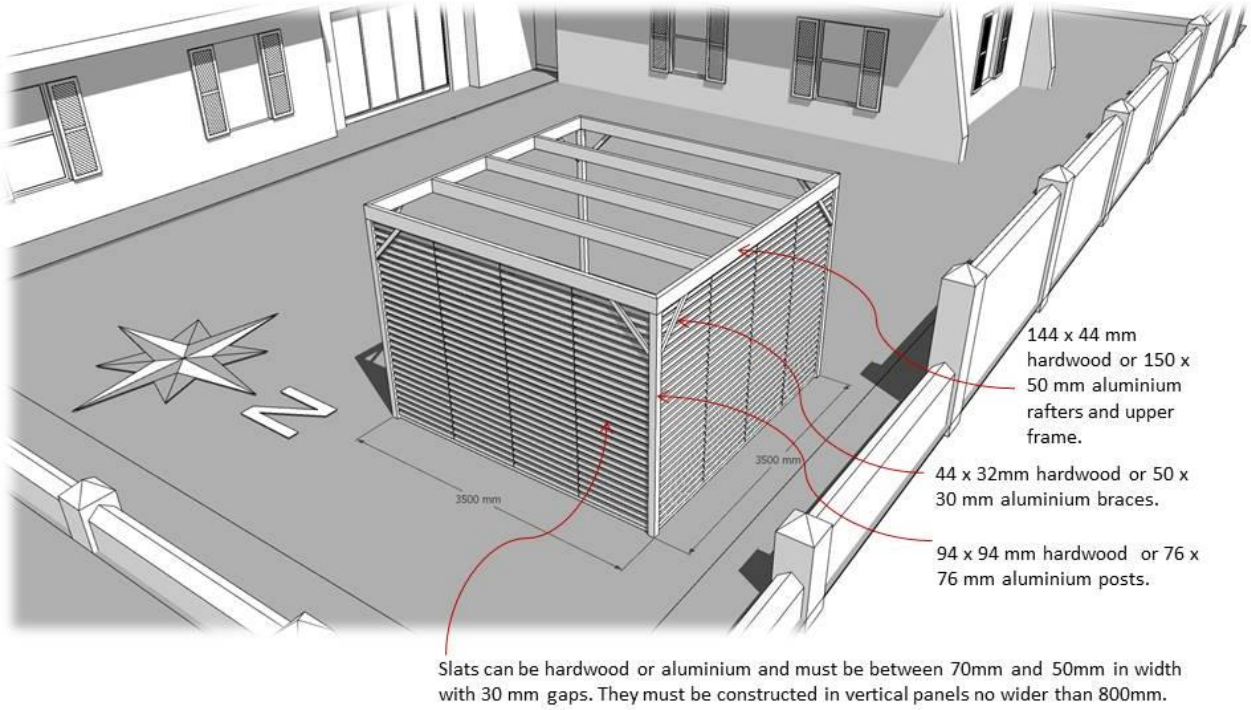


Figure 25: Typical gazebo with timber or aluminium lattice screens incorporated.

Walling and slats may not be combined in side screen to pergolas or gazebos.

27. Braais, pizza ovens and chimneys including cowls

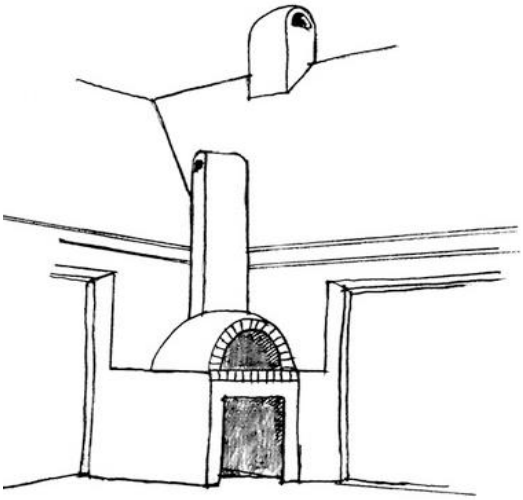


Figure 26: Pizza oven and flue: illustration of typical installation in the corner of sea facing patio.

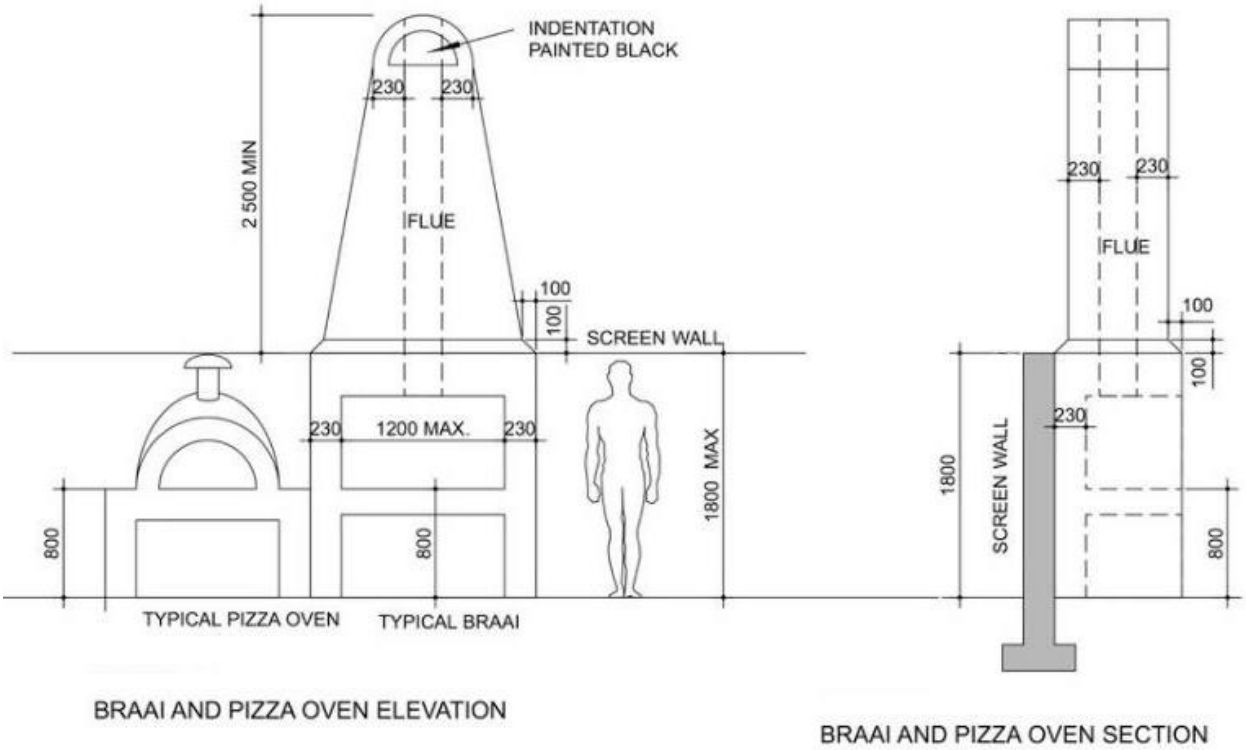


Figure 27: Typical pizza oven and braai: Above dimensions are required. Variations must be submitted to ARC for consideration.

Pizza ovens are to be concealed behind a screen wall (refer to Figure 27) or situated in a corner as part of the main building (refer Figure 26). Where a pizza oven is combined with a braai (refer to Figure 27), only one chimney is permitted. A circular flue with cap may be fitted to pizza oven provided that it is of a minimum height and screened behind a wall.

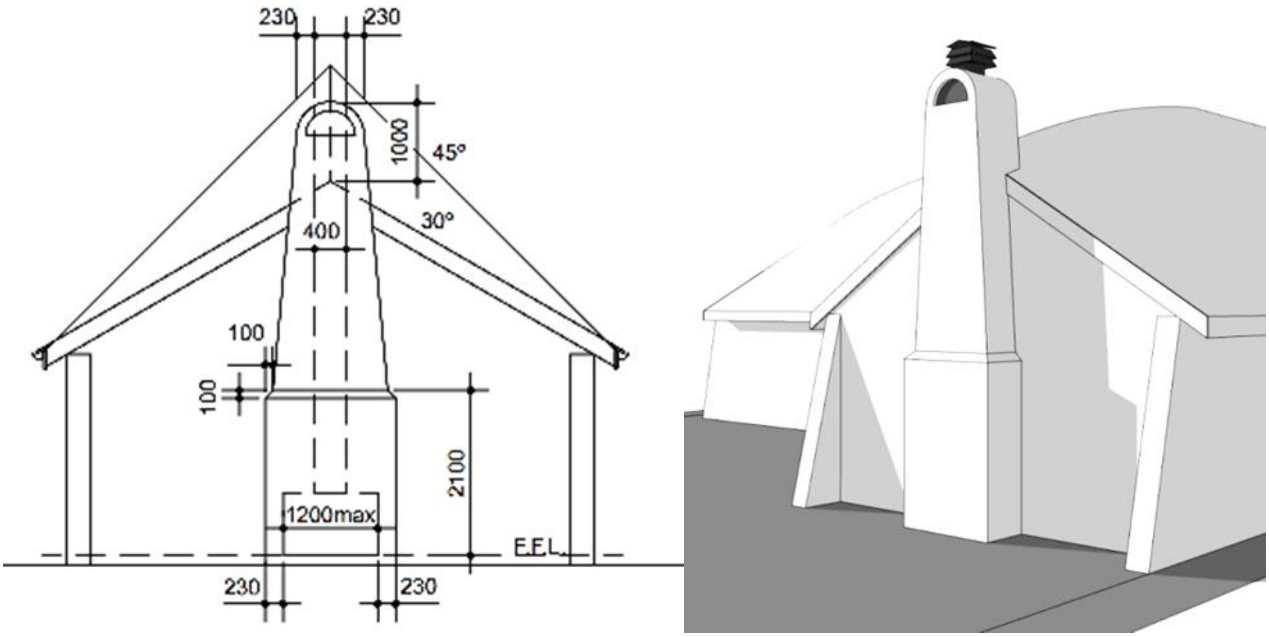


Figure 28: Typical external element of a fire place chimney design must conform to above proportions and dimensions. Any deviations must be submitted to ARC for consideration.

Chimney cowls:

Swivelling "bird" type cowls (refer to Figure 29) may be used. These must be made of fibreglass or stainless steel or similar non-corrosive material.

"Turbo" type cowls (refer to Figure 30) may also be used, provided they that they are made from stainless steel or 3CR12 (mild/stainless steel mix). Both types must be painted matt black.

Cowl designs must be submitted to ARC for consideration and approval.

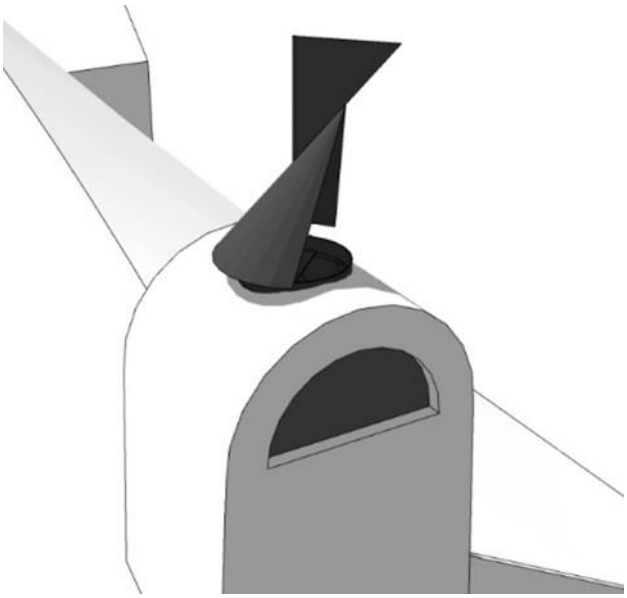


Figure 29: Swivelling "bird" type cowl.

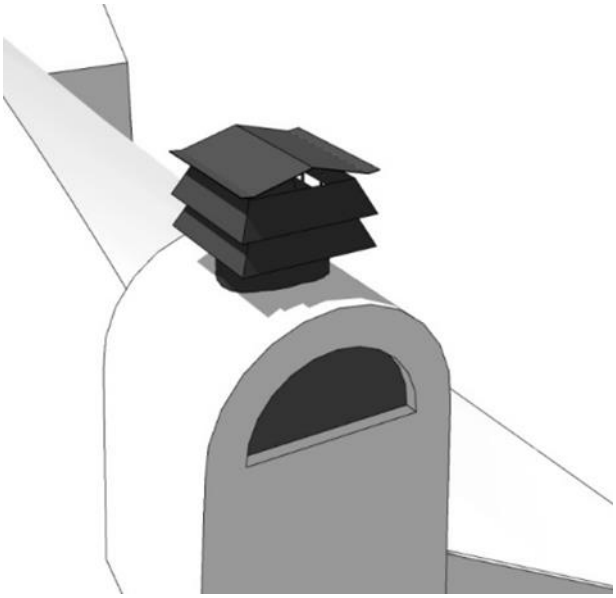


Figure 30: "Turbo" type cowl.

Stainless steel bird proofing for chimney cowls can be arranged through the JHA office. This service is provided for a fee by the JHA so that high standards are maintained. (New rule)

28. Garages

Garage doors may be single or double in accordance with the drawings below. (Figure 31)

A pier must separate garage doors side by side.

Garage doors may be manufactured from timber, fibreglass or aluzinc.

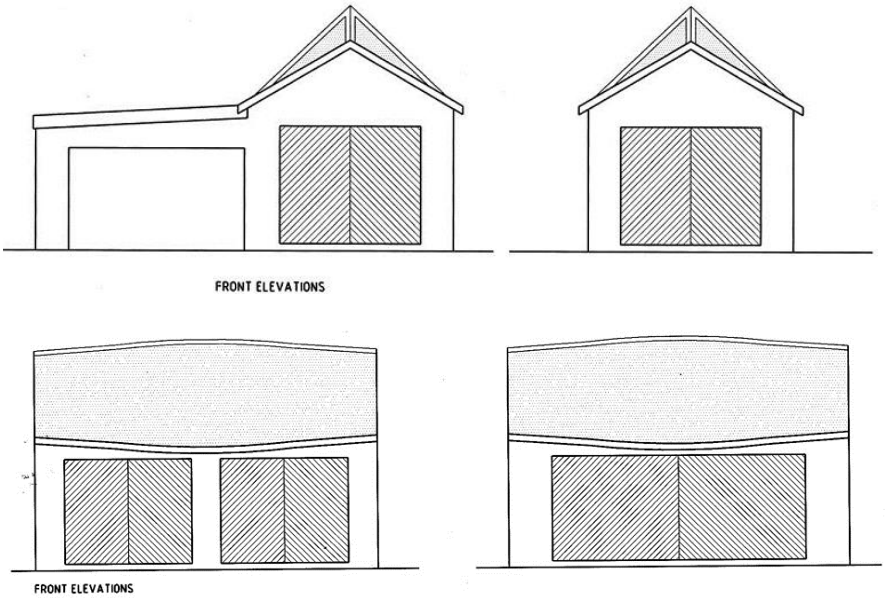
No more than two single or one double garage door shall face the street. If at 90º to the street an additional single garage will be permitted. Tandem garages will be permitted.

Special permission of ARC is required if doors are to exceed 2100 mm in height and if read together, garage doors must be the same height.

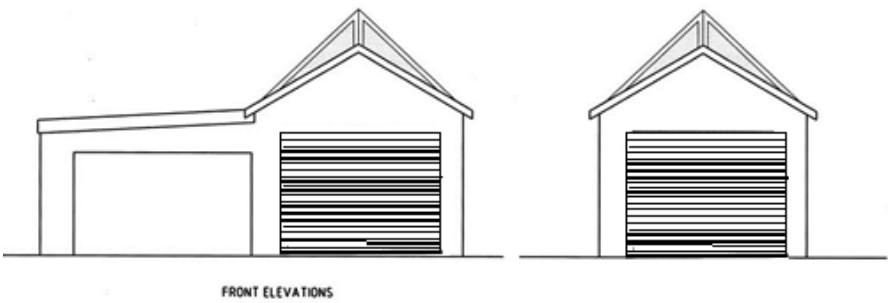
Sectional overhead doors may be fitted and finished with a diagonal plank design but must when closed have a surface appearance which matches the diagonal planked design as indicated in Option 1 of Figure 31. The horizontal joints between the door sections should be no more than 2 mm wide.

Sectional overhead doors may be finished with a horizontal plank design, but must when closed have a surface appearance which matches the horizontal planked design as indicated in option 2 of Figure 31. The joints of the door sections should be no more than 2 mm wide.

All garage doors must have a white colour finish.



Option 1



Option 2

Figure 31: Alternative garage door finishes

29. Carports and carport use

Carports may not be enclosed nor have doors fitted. The width of carports may not exceed 3000 mm.
Carports may not be used as a permanent or temporary storage or laundry drying area.

30. Other structures and installations

Any permanent or conspicuous structure or installation erected externally requires the approval of ARC. The structure must be screened from view and must not be visible from the street or public areas.

31. Exterior colours

External building walls and boundary walls must be painted in
Matt Birch White (47/9M) (International Colour Chart).
External wooden door frames, wooden window frames, shutters, vents, and garden/refuse bin gates must be painted in

- "Pineywoods Green" (55/18U) (International Colour Chart), or
- Equivalent colour for powder-coated aluminium.

Timber door panels, aluminium window and door frames, garage doors, and fascias must be white.
Roofs must be painted with Everite "Slate Green" EMB19 (International Colour Code).
Physical swatch samples of all paint colours must be submitted to the ARC for checking against sample swatches available at the JHA management offices.
When major alterations which extended the outer form of the house are undertaken, the whole house including roofs must be repainted.

32. Yards, bins and washing lines

Refuse bins may only be placed in a refuse embayment 900 mm deep x 1200 mm wide x 900 mm/1200 mm high and facing the house at the entrance of the property and not visible from the street. For the purposes of safe and controlled refuse removal by Reserve staff, access to the refuse embayment must be possible without entering the property. If facing the street the embayment must be incorporated into the boundary walling and enclosed with a gate.
Washing lines, if provided, must be hidden from view in a yard enclosed with walls 1800 mm high.

33. Boundary and garden walls

Boundary and garden walls must conform to the design detail shown in Figure 32.
Working drawings must include a cross-section of boundary and garden walls and their foundation.
Boundary and garden wall piers and footings must not project over the property boundaries.
Boundary walls must end with pointed piers at gates and refuse embayment at the end of walls and at a change of direction and height.

Pier size is to be 390 mm x 390 mm. If building codes require a larger pier size, then piers are to be reinforced in order to remain the size as specified.

Weathering to the top of walls and piers must be 15° to horizontal.

All wall heights are measured from finished ground level. (Refer to Section 10).

Walls on the road elevation are not to exceed 900 mm in height to the top of wall. However, with special permission of the ARC, walls on the road elevation (including gates) may be built to a height of 1200 mm to accommodate large dogs and to serve as a safety enclosure for jacuzzis/water features.

Boundary walls on side boundaries are to terminate on the sea-facing building line. Boundary walls on the side-facing elevation may be to a maximum of 1800 mm high. However, where there is a level change between sites the wall may be 1800 mm measured on the higher site with the consent of the adjoining owners.

Walls inside the building line may be built to a height of 1800 mm above ground level, subject to the clauses below. (New rule)

Sea-facing garden walls are permitted if the wall is within 1000 mm beyond the sea-facing building line. Sea-facing garden walls may not exceed 900 mm in height if within the sea-facing building line or 600 mm in height if beyond the sea-facing building line. Sea-facing garden walls at the given height may return to meet the side boundary walls.

The top of boundary and garden wall foundation is to have a minimum of 230 mm cover at the lowest platform level of the two properties.

Where a boundary wall acts as a retaining wall it is to be designed by a structural engineer.

Where boundary or garden walls are built in disturbed founding material, such foundations are to be designed by a structural engineer.

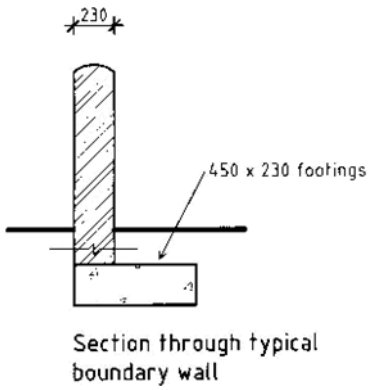


Figure 32: Typical section through a boundary wall. Note foundations on inside of boundary

34. Jacuzzis and Water Features

External and internal jacuzzis and spas may not exceed a maximum surface size of four square metres (4m²) and a volumetric capacity of 3000 litres.

External and internal water features may not exceed a maximum surface size of four square metres (4m²), a volumetric capacity of 1200 litres and a depth of 300 mm.

Special permission is required from the JHA for these water installations prior to the submission of plans to ARC which indicate such installations. Their use may be prohibited or curtailed if water reserves become critical and the JHA may require that these facilities be filled via an on-site water storage facility (i.e. not water supplied through the JHA infrastructure).

External jacuzzis and water features are to comply with National Building Regulation (South African National Standard - SANS 0400). Safety fencing may be constructed either of G.M.S, aluminium or polywood, subject to local authority approval.

35. Rainwater drainage and tanks

Rainwater drainage must be adequate to preserve the integrity of the surrounding terrain and is to be shown on the building plans. The ARC reserves the right to request additional soakaways and other provisions if deemed necessary.

Rainwater tank/s must be built on a plinth as required by National Building Regulations.

Rainwater tank/s may also be positioned semi- or fully underground if the foundations of the adjacent structures are not affected. Where any part of a buried tank is less than 3000 mm from any building structure, an engineer's certificate that guarantees the integrity of surrounding and neighbouring structures will be required.

The maximum allowable height of rainwater tank/s is 2500 mm above finished ground level.

Rainwater tank/s must have secure lids to prevent mosquito infestation. There must be no roof above rainwater tank/s.

Rainwater tank/s must be screened by a white painted plastered wall, either rectangular, square or circular.

The finished level of the top of the screening wall must be 150 mm higher than the highest point of the lid.

The top of the walls screening the rainwater tank/s must have slight weathering.

Rainwater downpipes may not run diagonally across any wall face in order to discharge into a tank.

There must be adequate drainage of screening wall at natural ground level (i.e. weep holes, drainage holes).

All screening walls to rainwater tank/s must conform to the site restrictions, building lines, levels, maximum wall heights, finishes and colour contained in the Design Manual.

Only 2 rainwater tanks are permitted per erf.

36. Plumbing, drainage, conservancy and septic tanks, soakaways

New conservancy tanks, existing septic tanks, soakaways, and plumbing must be indicated on site plans.

Septic tanks are no longer permitted by the local authority. A conservancy tank must be installed.in accordance with the National Building Regulations. (Refer to Paragraph 4.8 of SANS 10.400 – P/2010).

Existing septic tanks and soakaways must be within the building lines and must be sited a minimum of 3000 mm from any wall or erf boundary. Where alterations are done to an existing home and the above is no longer possible, an engineer's certificate that guarantees the integrity of surrounding and neighbouring structures will be required.

All plumbing must be concealed. Stub vent stacks, painted to match the wall, are to be used.

37. General: Unusual proposals (New section)

The ARC has authority to approve or decline an unusual building proposal on private property, once it has been formally submitted and motivated.

The ARC may consider and approve unusual proposals when the Design Manual is silent or unclear about specific elements, or where no regulation exists.

Property owners may approach ARC with an outline of the proposal for early informal comment.

End of Part A

Design Manual: Part B

Part B of the Design Manual sets out the design standards, the architectural character and the building requirements that apply to the houses and other buildings and structures throughout the Jakkalsfontein Nature Reserve.

The Jakkalsfontein Homeowners Association has the responsibility to maintain the design standards intended by this Manual. The JHA must ensure that all development complies with the Manual. This is carried out by the ARC, who will manage the approval of the plan and ensure compliance with design standards.

From time to time ARC will adjust and amend the Design Manual as they deem necessary. Where Swartland Municipality is not involved, ARC will control compliance.

Total control of compliance of the Design Manual Part B lies with the ARC and their appointed consulting architects.

Notwithstanding anything contained in the Design Manual Part B, all building procedures and processes must comply with the Design Manual Part A and the National Building Regulations.

Homeowners may, by prior arrangement with the Building Administrator, request to view plans of adjacent buildings under construction or re-construction.

Objections or concerns raised by the Homeowner, shall be at the sole discretion of the ARC.

38. Security Doors and Burglar Bars

Burglar bars may only be fitted internally and must be rectangular in configuration and not decorative.

Where possible, burglar bar members should match the window mullions of the window over which they are fitted.

Burglar bars must be painted white unless they are manufactured from a clear material.

39. Paving

Hard landscaping surfaces such as brick paving, tiling, timber decks, artificial grass and the like may not cover the entire site. Cumulatively, hard landscaping shall not exceed more than 50% of the site remaining after the footprint of buildings is deducted. Furthermore, paving is restricted to not more than 1000 mm beyond the sea-facing building line on the sea-facing elevation. Pathway and driveway paving where it crosses the pavement space may not be wider than the width of the garage or path which it serves. All driveway paving must be constructed of De Hoop blended pavers (NFX) or Crammix Kalahari Red (or equivalent, subject to approval). Paths, however, must be constructed of materials as indicated later in this section.

Paving within the 1000 mm area beyond the sea-facing building line may not be raised or elevated above the height of the finished floor level. Paving must be permeable, no plastic sheeting and the like to be placed underneath such paving, except under motor vehicle driveways. (Altered rule)

Paving or tiling contained behind a garden or boundary wall or on sea-facing terraces and the like may be of an alternative material, subject to final approval of the ARC.

All deck proposals, including material to be used and dimensions, must be submitted to ARC for prior approval.

Random paving and garden paths:

Paving or “stepping stones” may not be laid in a straight line for more than 6000 mm.

Paths should generally not be laid in a straight line or a formal geometric configuration.

Pavers or sleepers to be laid with a minimum gap of 75 mm between them.

No cement grouting may be applied between pavers. Ground cover of indigenous plants, crushed shells, or light-coloured stone chips may be used between pavers.

Paving may be of Revelstone Saxon, Ravine, Yorkstone or Kent random edge pavers of size 440 mm x 440 mm, 500 mm x 500-mm or 600 mm x 600 mm. Timber railway sleepers may also be used. Paths constructed of other materials or alternative designs will be at the discretion of the ARC.

Artificial grass may be permitted, but will be regarded as hard landscaping (Altered rule) and thus restricted under the 50% cumulative hard landscaping rule. The artificial grass must be surrounded on all sides by a low wall or paving/kerb and have adequate sub soil drainage. Full specifications and a sample of the proposed product, including a site plan indicating the shape and dimension, are to be submitted to ARC for consideration. The product is to be installed by a professional contractor.

40. Decks

All deck proposals, including material to be used and plans with dimensions, must be submitted to ARC for prior approval.

41. Private pathways on communal property

Private pathways on communal property may be constructed only where properties abut boardwalks directly. All proposed private pathways on communal property are to be submitted to ARC for approval.

The submission must be accompanied by a sketch and a photo of the proposed layout and material to be used.

Pathways are to be constructed using hardwood stepping blocks or concrete imitations thereof. Such pathways may not exceed 0.75m in width, must follow the shortest route to the boardwalk, and may not extend seaward of the property’s boundary. The stepping blocks may not be raised above the natural ground level and must be spaced a minimum of 300 mm apart. The stepping blocks may be laid on a bed of light brown stone chip.

The two stepping blocks nearest the boardwalk may be raised above ground level to enable stepping onto the boardwalk.

No other materials or configurations will be allowed without prior consideration and approval by the ARC.

42. Lighting

External lights must be round and white with opaque glass and corrosion proof. Lights and light fittings should not be obtrusive and that light source in a fitting must be screened (top half solid cover to create down light).

No accent lighting will be allowed.

The light source from fixed patio heaters must be screened.

Daylight switches for external lights are prohibited but movement sensors will be allowed.

43. Signage

Signage (names of homeowner(s) and/or name/number of unit) is subject to the approval of the ARC. Signage must not be obtrusive and must conform to standard Reserve signage in colour and size.

The preferred material for signage is timber, epoxy/resin or aluminium painted green, with white lettering.

44. Swimming Pools and Splash Pools

Swimming pools and splash pools are not allowed.

45. Water meters

Water meters are provided by the JHA at the owner's cost and must be fitted externally in an accessible location for ease of reading.

46. Gates

Garden gates (wood or aluminium) must be diagonally boarded or slatted, and painted "Pineywoods Green", including frames. The slats must be 96 mm wide by 22 mm thick and not more than 30 mm apart. The frame must be 69 mm wide and 32 mm thick and the top rail is to be 96 mm wide. These dimensions can vary from the above if the gate is made from aluminium; however, the gate design must be submitted to ARC for approval.

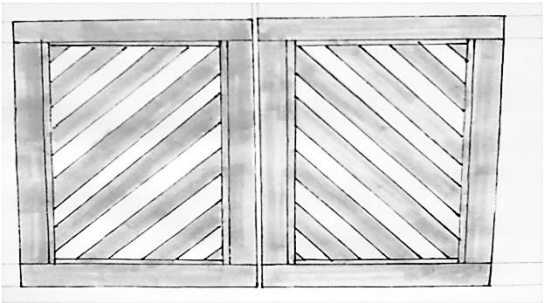


Figure 33: Typical double leafed garden gates

47. Architectural features such as weathervanes

Architectural features such as weathervanes must be of a traditional design.

They must not be out of character or scale with the building. In the event of a dispute in this regard, the JHA consulting architect's decision will be final.

48. Fences/Screens

Fences of any type or material will not be permitted.

Subject to the provisions in Section 26, any form of screening other than walls are not allowed on privately owned properties.

Refer to Section 26 Pergolas, Gazebos and awnings, for details on privacy screens to pergolas and gazebos.

No lattice screens may be fitted to the top of any boundary walls.

Lattice- type trellises (refer figure 34) constructed from white powder coated aluminium may only be fixed directly to a masonry wall but may not protrude above or to the side of a wall. (Altered rule)

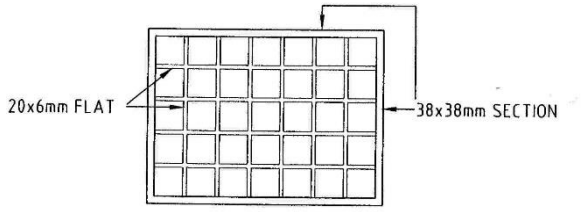


Figure 34: Typical lattice type trellis (member sizes to nearest)

49. Privacy

Although the Design Manual includes a number of privacy related requirements, Swartland Municipality does not want to police or control general matters of privacy requiring permission from adjoining neighbours. Therefore, any reference to special permission from adjoining neighbours in this regard, is contained in Part B of the Design Manual.

The restriction pertaining to obscure glass for side-facing elevation dormer and roof windows may be waived if written consent from the affected adjoining neighbour's has been obtained.

Notwithstanding the design requirements pertaining to dormer and roof windows (i.e. respect for neighbours privacy), it remains the responsibility of the individual homeowner to achieve the required level of privacy within the established design and building requirements as contained in the Design Manual.

50. Fly screens and security gates/doors

Fly-screens may be fitted, but only internally and the edges should match those of the window frame. Security doors (e.g. Trellidoors) will not be permitted externally, and if fitted internally, must be screened by curtains or blinds, in other words, they must not be visible from the outside when in the closed position.

51. Demolition and removal of structures and fixtures

No structures or fixtures that affect the aesthetics of the house (for example, gates, shutters, pergolas, awnings, etc.) may be removed without the prior approval of ARC. Approval shall not be unreasonably withheld.

52. Landscaping

Hard landscaping proposals must first be submitted to the ARC for approval and then to the Reserve Manager for final approval of horticultural matters.
No lawn will be allowed unless contained within a walled area.
Only indigenous plants according to the approved species list will be allowed. A nursery is available at the farmstead for the benefit of homeowners.
No planting of exotic species will be permitted.
No plastic or artificial plants will be permitted. (New rule)

53. Bird deterrent installations (New section)

Bird spikes and any other wildlife deterrent installations will not be allowed. Clear plastic bird spikes may be considered if it can be demonstrated that they will not be visible from the street, boardwalks, beach or neighbouring properties.

54. Electric fencing (New section)

No form of electric fencing will be allowed.

55. Installations of a technical nature: Submissions and approvals (New section)

All technical Installations are to be approved by the ARC.

- "Technical" refers to all external mechanical, electronic, telecommunications or alternative energy systems, fittings or equipment.

- Details of every technical installation including illustrations and specifications of the proposals must be submitted by the property owner with the recommended scrutiny fee for approval.
- After the ARC has approved the proposal, it may need to be submitted to the Swartland Municipality for their approval *if required* under the applicable legislation.
- Installation on site may commence once all approvals have been granted and the JHA has been notified.
- All installations are subject to the intent, scope and detail of this Design Manual.

Sufficient information in the form of illustrations, specification and scaled plans must be submitted for the ARC to assess the proposal.

Installations are not limited to the list outlined here, nor to the range of products, materials and infra-structure which are described in each section.

56. Suppliers and contractors (New section - to be approved)

The Jakkalsfontein Homeowners Association will make available names of products, suppliers and contractors who have supplied services or products to Jakkalsfontein.

57. Air conditioning condensers

To satisfy the design and aesthetics at Jakkalsfontein, air conditioning condensers and heat pumps, if they are installed where they are visible from the street, beach or from immediate neighbour's private property, must be screened via a low brick and plastered wall.

They should be installed as close to the ground as possible.

58. Telecoms aerials, satellite dishes and GSM antennae
(New section)

No aerials, antennae, TV dishes or similar structures may be erected or installed externally without permission of ARC. Applications to ARC must include:

- Illustrations or technical drawings of the equipment that is to be externally mounted.
- Specifications of size and colour of all components that will be mounted externally, including wires and mounting brackets.
- Photographs and sketches indicating the actual mounting position of all external equipment on the actual home.

TV aerials and burglar alarm sirens are to be installed inside the roof of the house.

Satellite dishes and their fixings should be of a non-corrosive material, (i.e. not mild steel), must be white in colour, and not to exceed 600 mm in diameter. Satellite dishes must be concealed as best as possible below the roofline against a white wall. The ARC must approve the final position of such dishes.

Recommended GSM antenna type and preferred installation position.

The antenna units that will be approved without difficulty are shown below:

Figure 34: Examples of acceptable telecoms booster units

All other components must be approved by ARC.

The unit should ideally be mounted as per the illustrations in Figures 35 (Preferred fixing position on gable) and 36 (preferred fixing detail with no pole or large bracket).

Figure 35: Preferred mounting position

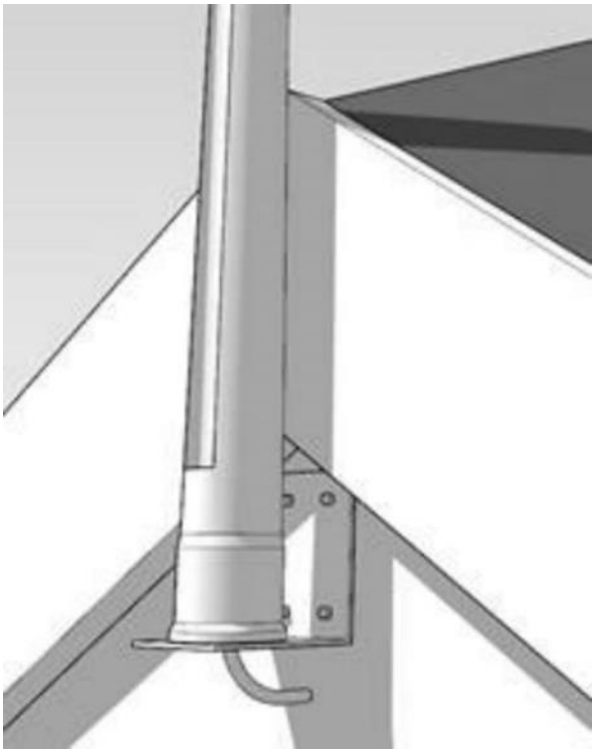


Figure 36: Close up view of Figure 35

The wall bracket and bolts should be rustproof, white in colour and should ideally be fixed with the fixing flange behind the antenna.

The cable must also be white and must be fed through a hole in the wall into the roof space directly below the bracket (i.e. it must not run down or across the wall).

All other equipment must be installed inside the roof space or inside the home.

Homeowners who intend to install such a booster but do not have a gable facing in the correct direction should propose another position for ARC to consider, using sketches and/or photographs.

Should a homeowner's supplier determine that the recommended booster will not be adequate for the needs of a site or home, motivation for the required alternative type and its mounting position will need to be addressed to ARC in writing.

59. Alternative energy systems: General rules (New section)

Due to the ongoing issues regarding the availability and burgeoning cost of electricity supply: Jakkalsfontein will permit the use of alternative energy installations by homeowners.

The following sections contain rules for gas installations, generators, heat pumps, solar hot water heaters, photovoltaic systems, power inverters, battery banks and auxiliary equipment.

Sketch plans for the above must be submitted to ARC for all these installations. A "minor alterations" scrutiny fee will be levied per application.

All alterations are to be undertaken by a registered and recognised contractor. A certified copy of a certificate of compliance is to be issued to the homeowner and a copy provided to the ARC.

60. Gas installations (Rules altered)

These installations include gas fires, braais, stoves and ovens, as well as gas heated hot water systems.

Gas cylinders are to be screened from view from outside all boundaries.

Gas bottle enclosures must be constructed of non-corrosive materials and be finished in the colour matt birch white.(47/9M) (International Colour Chart).

All gas installations, containers and equipment are to comply with the following local and national fire and building regulations.

- SANS 10019: Transportable metal containers for compressed gas- basic design, manufacture, use and maintenance.
- SANS 10087: The handling, storage, distribution and maintenance of liquefied petroleum gas (LPG) in domestic and industrial installations.
    - Part 1: LPG installations involving gas storage containers of individual water capacity not exceeding 500 litres and a combined water capacity not exceeding 3 000 litres per installation.
- SANS/ISO 4706: Refillable welded steel gas cylinders.
- SANS 1792-2: Refillable welded steel gas cylinders.
- SANS 199: Cylinder shut off valves for LPG.
- EN 161: Automatic shut-off valves for gas burners and gas appliances.
- SANS 50331 / EN 331: Manually operated ball valves and close bottom taper plug valves for gas installation for buildings.
- SANS 1539: Appliances operating on LPG – safety aspects.
- SANS 1237: Single stage low pressure regulators for LPG.
- SANS 1156-2: Hose for LPG Part 2: Hose and tubing for use in LPG vapour phase and LPG-air installations.

- SANS 827: The installation of pipes and appliances for use with natural gas.
- ASME B31Q: Standard of pressure piping.
- Swartland Municipality bylaws.
- SANS 10400: Building Regulations.
- Occupational Health and Safety Act (OHSA) [5] Act No. 85 of 1993.
- Pressure equipment regulations.

All installations must be carried out by SAQCC registered installer who must issue a pressure test certificate, and a certificate of compliance.

Gas hot water heaters may not be mounted externally.

61. Power generators (New section)

No temporary or portable generators may be used except during building construction.

The installation must be within the boundary lines of the applicant's property.

Outdoor generators shall not be visible from the street, seaside, or any neighbouring property.

Generators not installed within a storeroom or garage, shall be enclosed by walls of a minimum height of 1.2 m, and positioned as far as possible from neighbours (final position to be agreed with ARC in writing).

Outdoor generators shall be covered to provide sufficient protection against the ingress of moisture.

The installation and operation of the generator shall be in accordance with SANS 10142-1 including:

- The wiring of premises; part 1 low voltage installations.
- The Occupational Health and Safety Act,1993 (act 85 of 1993).
- The relevant Municipal electrical supply bylaws.

Capacity and size

The generator shall not have capacity greater than the grid connection to the home and only to a maximum of 10 KVA.

Dimensions of the enclosure shall not exceed 1.5 m wide x 2.5 m long x 1.5 m high, inclusive of all auxiliary equipment and silencers.

Noise and vibration

All generators are to be installed in such a way as to minimise the sensory impact on the neighbours.

Refer to:

- SANS 10103: The measurement and rating of environmental noise with respect to annoyance and to speech communication.
- Western Cape Noise Control Regulations: PN 200 of 2013.

All generators must have a residential-grade silencer fitted and installed within a purpose-built or integrated structure that assists with sound attenuation. Maximum allowable sound pressure measured at 7m from the generator may not exceed 70 dBA at full load.

All generators must incorporate or be mounted on industry standard vibration dampening rubber mounts. These must be replaced when they are cracked or broken.

Fuel and fuel storage

Generators may be run on petrol, diesel, or gas.

The fuel tank of a generator may not exceed 100 litres and must be of an approved material and designed for the purpose of fuel storage.

The fuel storage is to comply with Swartland Municipality's Fire Department regulations.

Where gas is utilised, storage is to comply with clauses under section "Gas installations".

Generator exhausts

Any exhaust shall be positioned to direct fumes away from neighbouring properties.

Where generators are positioned within 2.4 m of a structure, the exhaust is to be taken at least 500 mm above the adjacent eaves and hidden from view from the street.

All visible exhausts and silencers are to be manufactured with 316 stainless steel.

Generator electrical connections

No generator shall run in parallel to the main supply at any time.

A suitable manual change over switch with central off position, or a mechanical interlocked automatic mains failure (AMF) is to be provided.

It is the responsibility of the home owner to ensure the necessary Gen 1 forms are submitted to the Swartland Municipality electricity department and to obtain a certificate of compliance (COC) of all the works undertaken. A certified copy is to be handed to the ARC.

A permanent red label [PVC or aluminium] with white lettering [at least 10 cm high] shall be affixed to the main distribution board inside the premises as well to all other distribution boards fed from the main incoming utility supply circuit breaker. The label shall read ''DANGER UPS/GENERATOR CONNECTED''.

Where any form of alternate supply [generating, UPS, etc.] is connected and automatically supplies power to circuits on the distribution board, a visible indicator light shall be provided on each distribution board where such circuits are live after the main supply on that board has been switched off.

Appropriately related protective devices shall be supplied for short circuit and earth fault conditions to protect the distribution board, generating set and user. The protective devices shall prohibit feedback onto the utility system once the main incoming supply on that board has been switched off. The generating set shall be provided with separate appropriately- rated over current protection circuit breaker, over and above any devices installed on the generating set itself. Earth leakage protection shall be provided in accordance with SANS 10142-1 Section 6.8.Neutral earthing of the generator set shall be done in accordance with SANS 10142-1 Section 7.12.3.

A control panel shall be installed after the meter point for both conventional and prepayment meters, as close to the main distribution board as possible. The control panel shall include at least,

- A main circuit breaker
- A manual change over switch. This change over switch shall be of a three position type, break-before-make and have an appropriate rating for the size of the generating set.
- A foolproof interlocking system shall prevent the main supply from being connected to the generating set supply. This interlocking system shall incorporate a mechanical as well as an electrical interlock on the changeover contactors/ relays.
- No other means of connection is allowed.

An emergency stop button that is easily accessible shall be provided for the generating set. This emergency button shall also prevent the generating set from starting.

There shall also be a remote emergency stop button. The remote emergency stop button will be installed next to the main incoming utility supply circuit breaker with a label identifying it. Alternatively a circuit breaker can be installed with auxiliary contacts connected to the emergency stop/starter preventing the generator from starting if the main incoming supply is switched off due to safety reasons.

A registered person in terms of the Electrical Installation Regulations (2009) must install the generator and issue a Certificate of Compliance to the owner if the generator is to be connected to the existing internal wiring of the property. A certified copy is to be provided to the ARC.

62. Heat pumps (New section)

Heat pumps must be screened via a low brick and plastered wall if they are installed where they are visible from the street or sea side or from immediate neighbours' property. They should be installed as close to ground level as possible.

63. Solar hot water heaters and photovoltaic (PV) installations (New section)

One of the most distinguishing features of the Jakkalsfontein architectural vernacular is the sloping green roofs. This feature was developed by the architects and spatial development planners to facilitate that the buildings blend into the vegetated dunes. This was an important factor in gaining approval for the development.

The need to reduce the global reliance on fossil fuels to generate electrical power has become environmentally and financially critical. Many homeowners would like to make use of solar energy, something not envisaged 25 years ago. The effect of multiple areas of shining solar panels on sloping roofs will clearly negate the roof's tendency to blend in with the dunes.

The JHA realises the need to align with this global necessity. After consulting with specialists in the solar energy industry and its own architectural consultant, the JHA added the clauses below to allow for a limited but effective level of solar installation capacity.

64. Solar hot water heaters

Solar panels are to be positioned as discreetly as possible, preferably on flat roofs concealed by parapets and fringes. Pitched roofs may only be used if no other position is possible. Panels are not allowed in roof curves.

No close-coupled units (i.e. incorporating an exposed hot water cylinder) will be allowed. All hot water cylinders are to be concealed in the roof space.

All pipe work from solar panels must where possible be taken directly into the roof space. When it is not possible to conceal the pipes, they must be painted green to match the roof tiles.

All solar panels are to be securely fixed to and in the same plane as the roof below.

“Evacuated-tube” (refer to Figure 37) type solar hot water heater panels may only be installed on flat roofs with the proviso that the panel’s highest point is no higher than the lowest height of the parapet or roof fringe.

Figure 37. Typical evacuated-tube hot water heater panel.

Only “Flat-plate” (Refer to Figure 38) solar hot water heater panels may be used on pitched roofs,

Figure 38. Typical flat plate hot water heater panel.

Flat plate panels should preferably be fixed only on North- facing pitches.

East-facing pitches may be used only where it is not possible to install on North pitches. (Refer Figure 39).

Panels may not cover a continuous roof surface of more than 2.4m long by 2m high.

No more than 2 panelled areas are to be installed on any one roof pitch. (Refer to Figure 39).

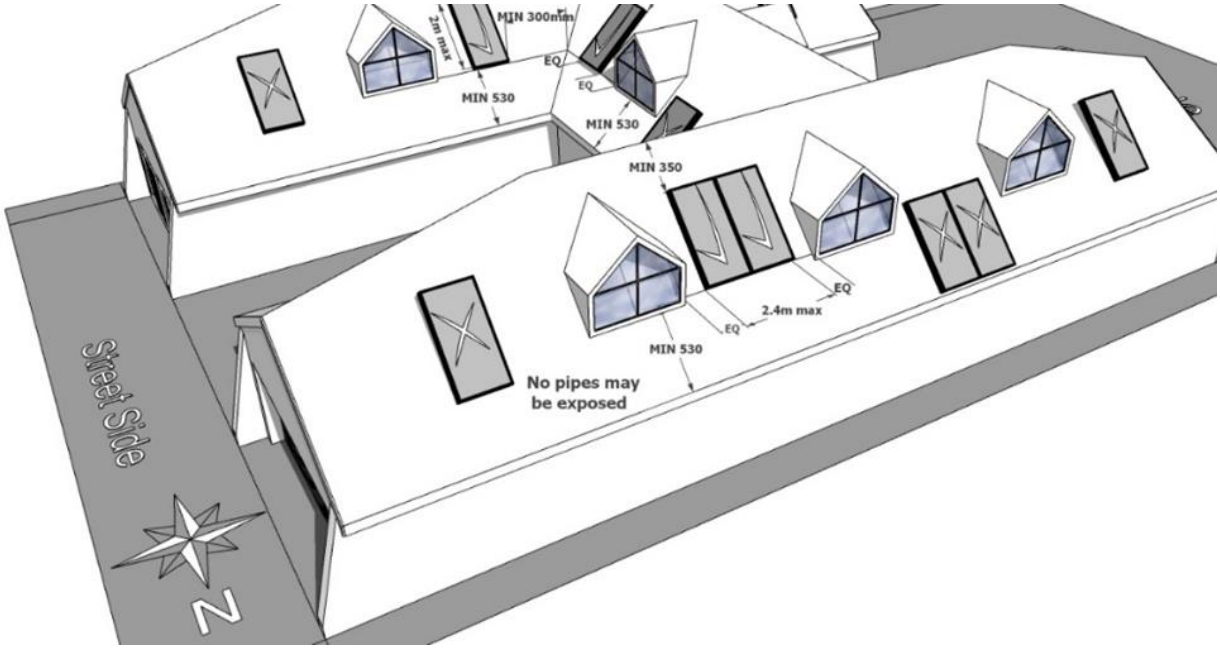


Figure 39: Acceptable positions for solar hot water heater panels on pitched roof planes (a cross indicates not desirable and tick desirable).

Panels may not be mounted closer than 350 mm from the roof ridge, and no closer than 530 mm from the tile edge at the eaves. (Refer to Figure 39).

No panel may at any point be mounted closer than 300 mm from a valley gutter or 600 mm from a barge board at a gable end. (Refer to Figures 40 and 41).

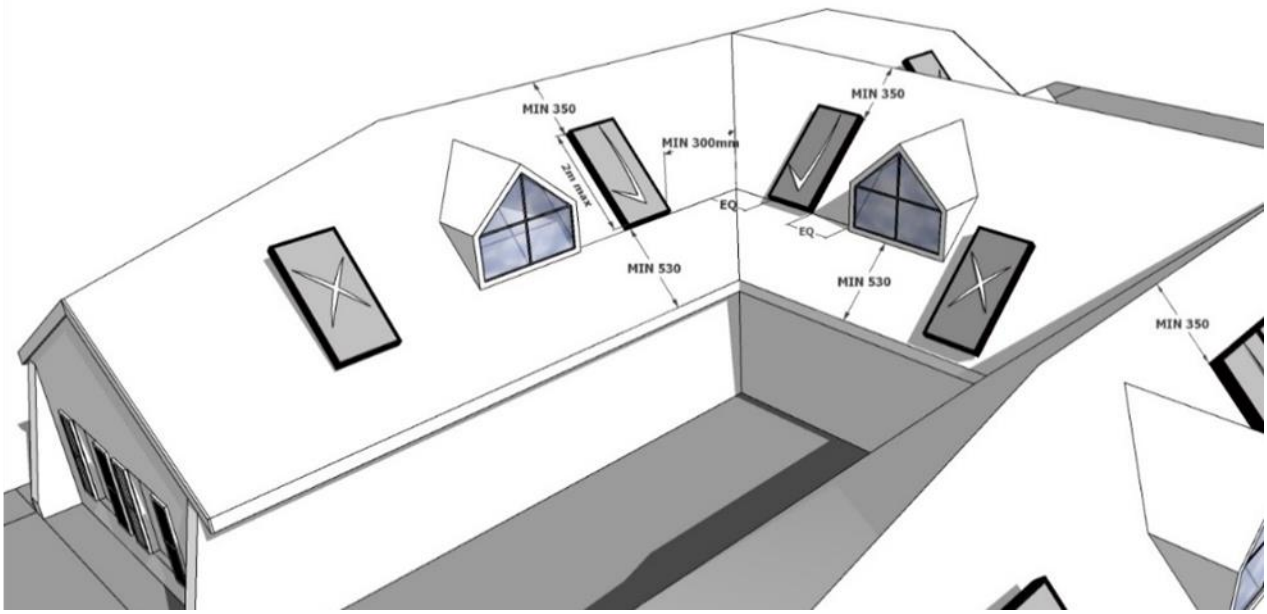


Figure 40: Acceptable and non-acceptable panel positions on inward facing roof pitches.

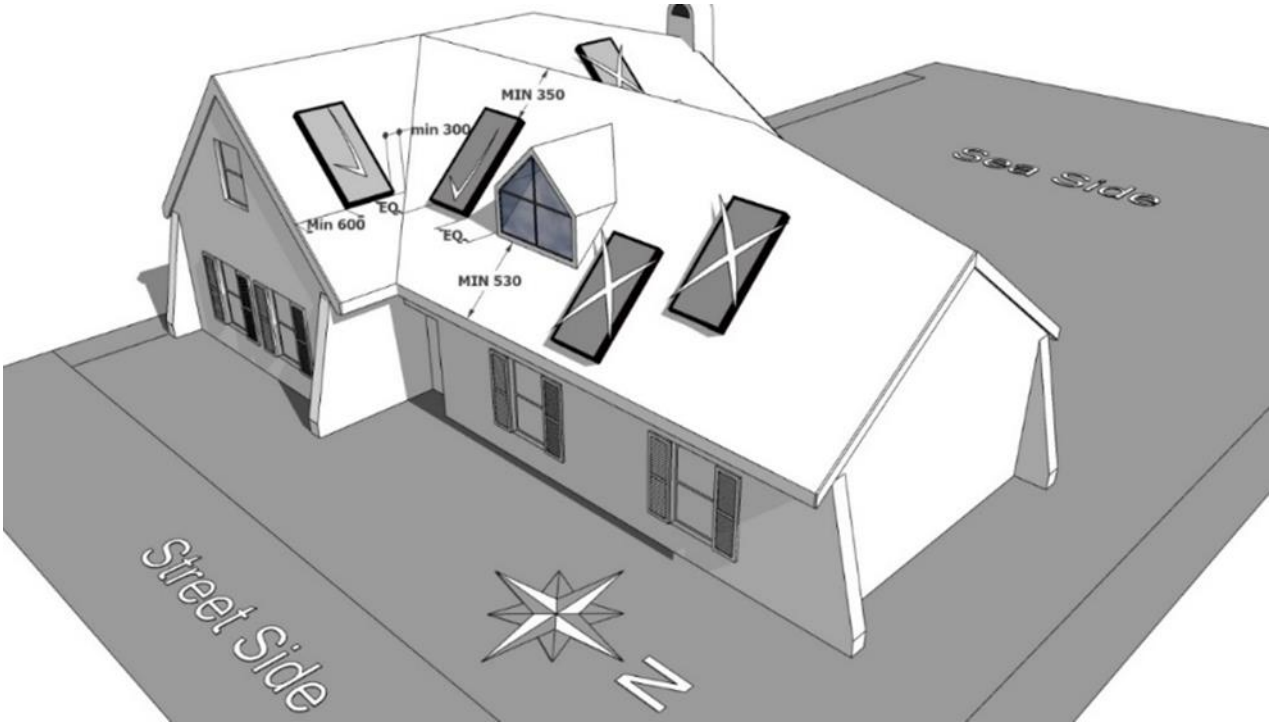


Figure 41: Acceptable and non-acceptable panel positions on smaller home roof pitches.

Panels may only be mounted on a roof pitch with a sloping ridge where there is no other position available. The panels should preferably be positioned towards the section of the roof with the highest ridgeline.

65. Photovoltaic (PV) solar panel power generation systems

(New section)

The panel array currently allowed by the JHA is adequate to charge enough batteries in one sunny day to run essential electrical equipment in an average home for approximately 3 hours.

PV panels may be accommodated on flat roofs and on North and East facing pitched roofs with horizontal ridges only. South and West facing roof faces, as well as those facing the sea, may not be used.

PV panels installed on pitched roofs are to be symmetrically and not randomly placed and must be aesthetically acceptable. The siting, number, and type must be approved by ARC before any installation may take place.

A maximum of 20 m² or 10 PV panels may be accommodated on any one home. No more than 8 m² or 4 panels may be positioned on any single pitched roof face, provided that no solar hot water heater is mounted on the same face. In summary: the total m² of all “solar” panels on one roof face may not exceed 8 m².

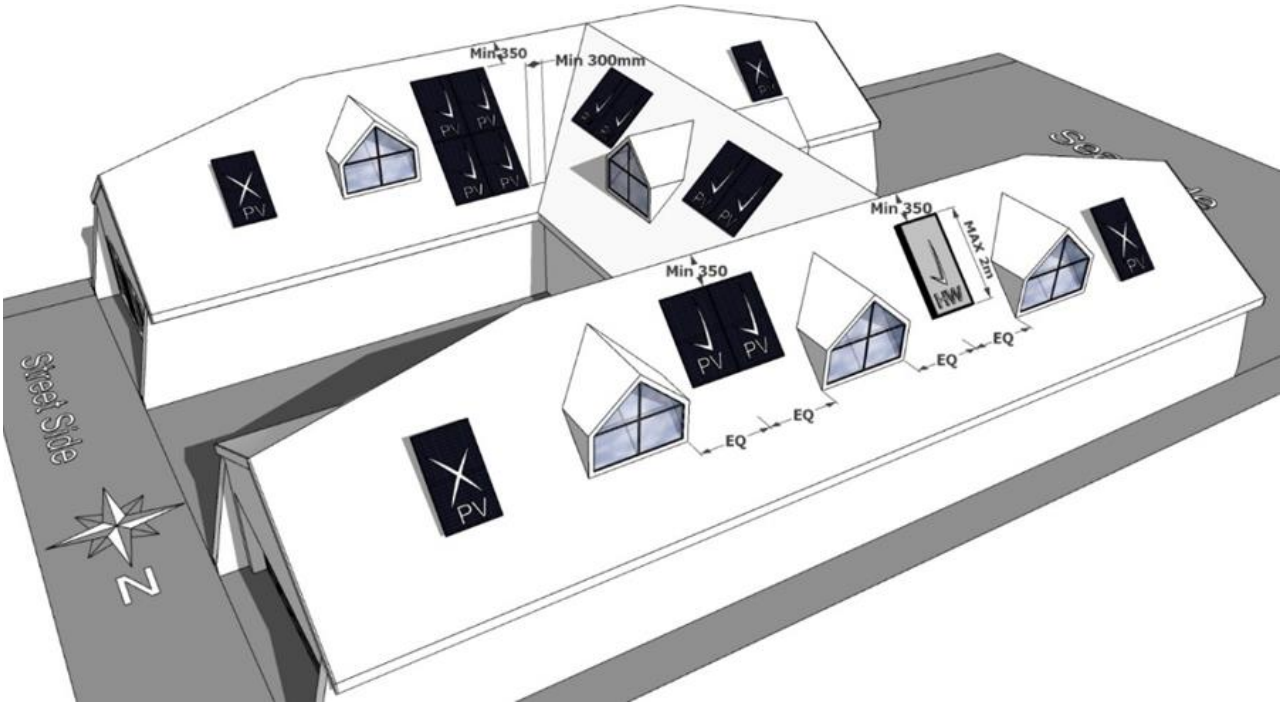


Figure 42: Typical 2.56kWp output PV panel set up consisting of 10 x 1.7m² (note the Solar hot water panel).

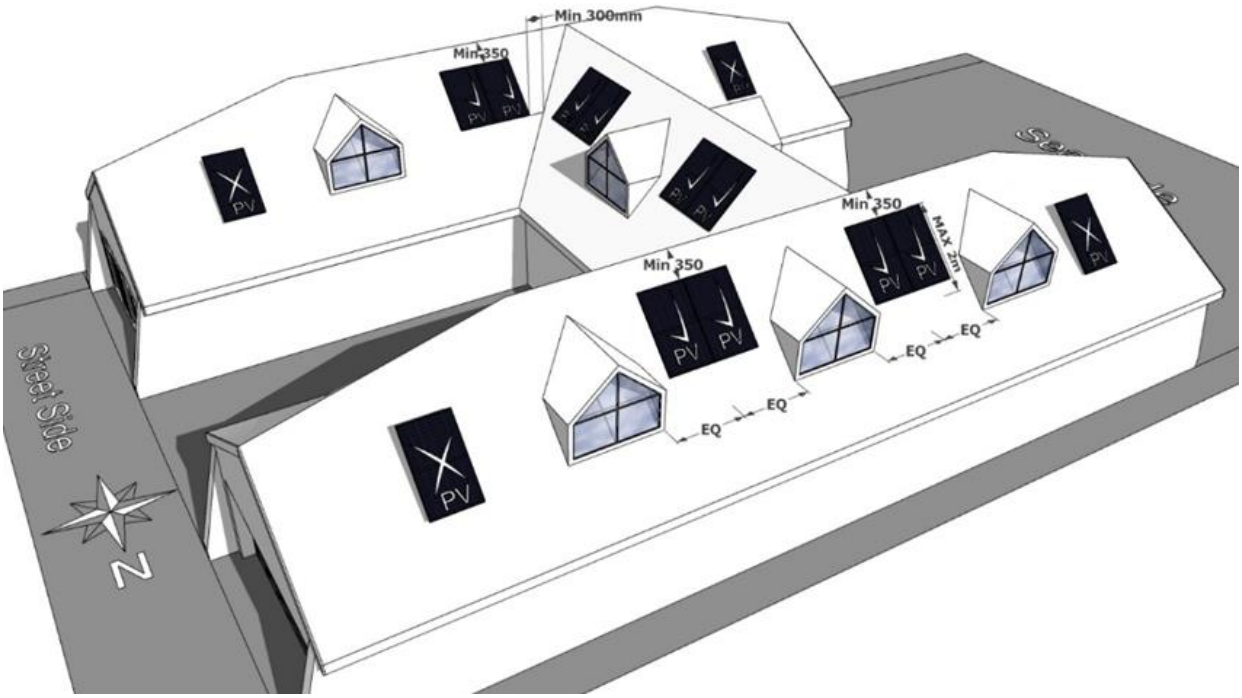


Figure 43: Ideal PV configuration without solar hot water heater.

No adjusting to the angle and Azimuth of panels may be considered on pitched roofs. IE: the panels must be mounted flush with the immediate existing roof surface.

An unlimited number of PV panels may be mounted on a flat roof provided that no part of any panel can be seen from the street and neighbour's properties from natural ground level. The panels must be hidden from view by parapets or fringes which comply with the building design requirements. (Refer to Figure 44).

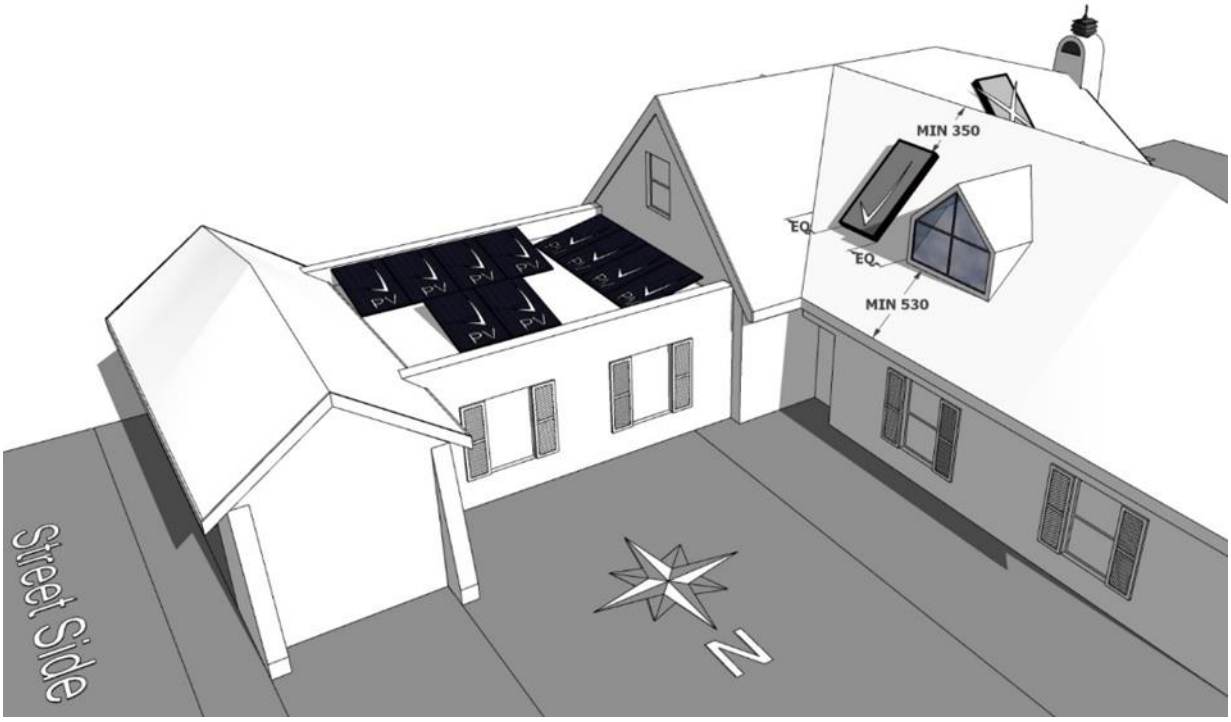


Figure 44: Typical 2.6 kWp output PV panel set-up consisting of 10 x 1.7 m² PV panels on a flat roof (note the panels may not protrude above the parapets).

66. Power Inverters, battery banks and auxiliary equipment

(New section)

All inverters and auxiliary solar power equipment must be mounted inside the building.

Where batteries are deployed, they must be installed inside a building with sufficient ventilation in terms of compliance with recognised industry standards for charging and discharging.

See Section 59 for compliance with all electrical connections of the above equipment.

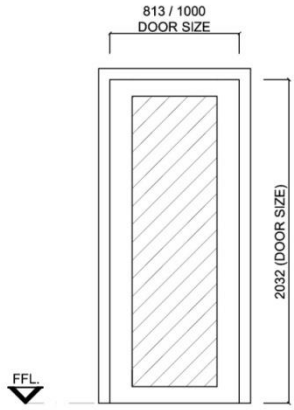
All PV solar panels, inverters, battery banks, and auxiliary equipment installations are to comply with:

- NRS 097-2: Grid interconnection of embedded generation: Part 2 Small-scale embedded generation.
- South African Renewable Power Plant Grid Code.
- Electricity Regulation Act, Act 4 of 2006 and Electricity Regulation Amendment Act, 28 of 2007 as amended.
- South African Distribution Code (all parts).
- South African Grid Code (all parts).
- South African Renewable Power Plants Grid Code.
- Occupational Health and Safety Act 1993 as amended.
- City of Cape Town Electricity Supply By-Law.
- SANS 10142- Parts 1 to 4: The Wiring of Premises.
- SANS 474/ NRS 057: Code of Practice for Electricity Metering.

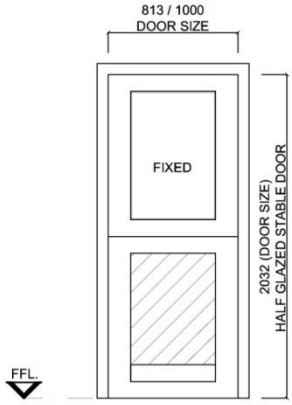
- NRS 048: Electricity Supply – Quality of Supply.
- NRS 097-1: Code of Practice for the interconnection of embedded generation to electricity distribution networks: Part 1 MV and HV (Eskom 240-61268576 / DST 34-1765: Standard for the interconnection of embedded generation, is applicable until published).
- NRS 097-2: Grid interconnection of embedded generation: Part 2 Small scale embedded generation.
- Swartland Municipality By Laws.
- SANS 10400: Building Regulations.

Only a registered person in terms of the Electrical Installation Regulations (2009) may undertake the above installations. A Certificate of Compliance must be issued to the owner.

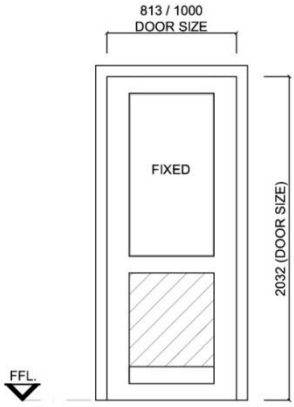
67. Schedule: External doors (New section)



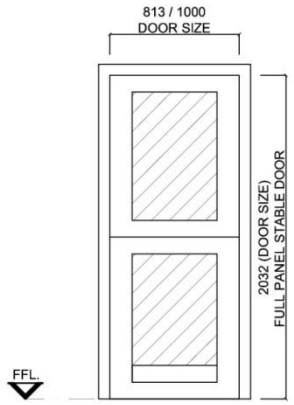
D1 - EXTD.



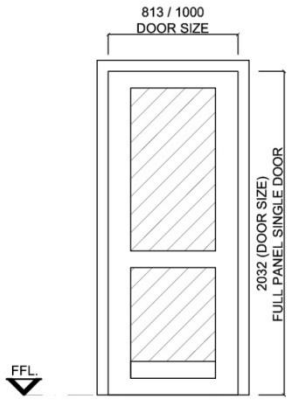
D2 - EXTD.



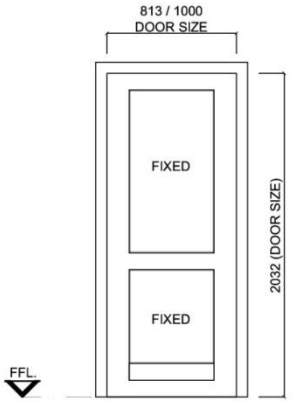
D3 - EXTD.



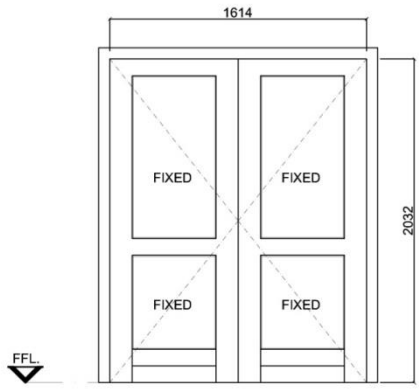
D4 - EXTD.



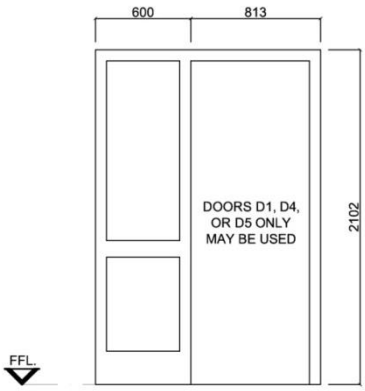
D5 - EXTD.



D6 - EXTD.



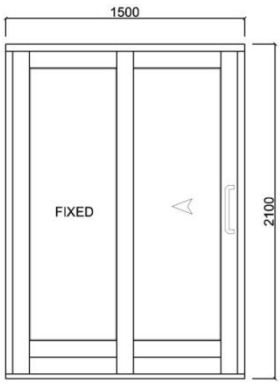
D7 - EXTD.



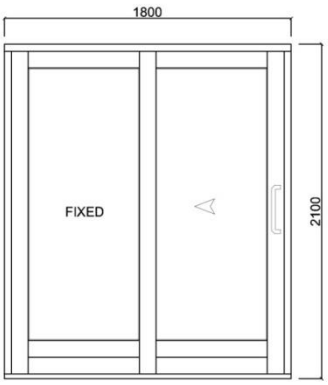
FRAME - EXTD.

EXTERNAL DOORS

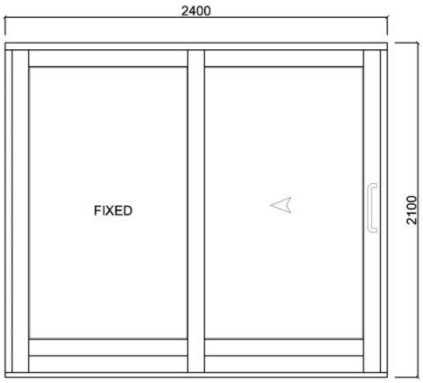
68. Schedule: Sliding doors (New section)



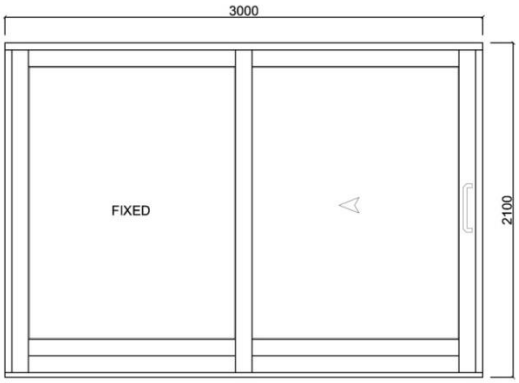
D1 - SLID



D2 - SLID

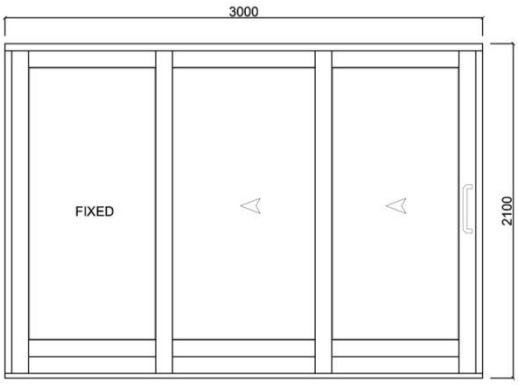


D3 - SLID



D4 - SLID

CAN BE COUPLED TO 2 No. 2100 x 600 SIDELIGHTS - SEA FACING ELEVATIONS ONLY REFER 5, 7, 10 OF GUIDELINES.

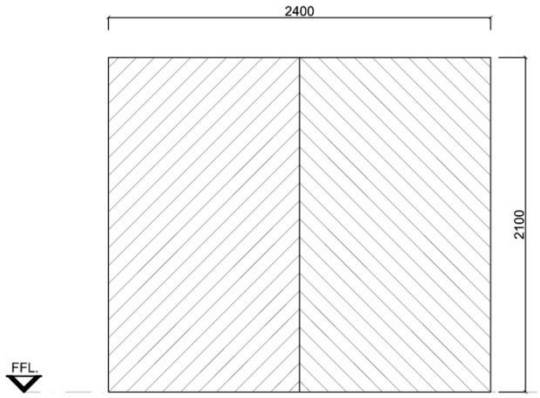


D5 - SLID

CAN BE COUPLED TO 2 No. 2100 x 600 SIDELIGHTS - SEA FACING ELEVATIONS ONLY REFER 5, 7, 10 OF GUIDELINES.

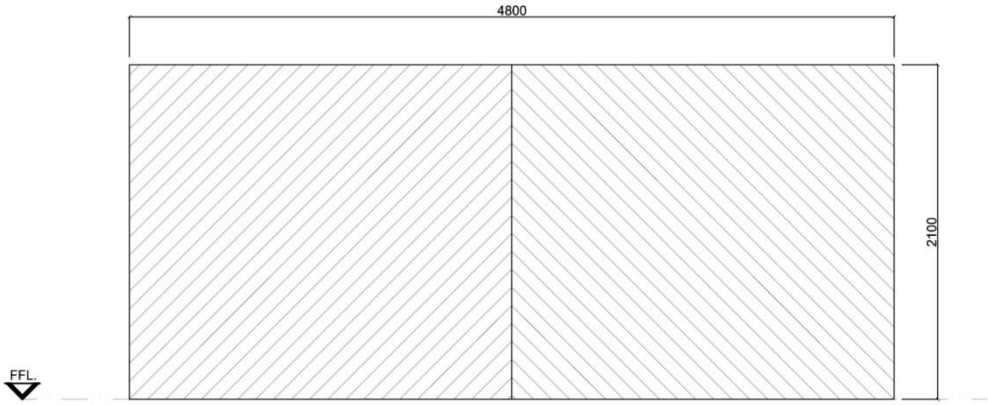
SLIDING DOORS

69. Schedule: Garage doors (New section)



D1 - GAR
SINGLE

HORIZONTALLY BOARDED SECTIONAL OVERHEAD ALSO PERMITTED

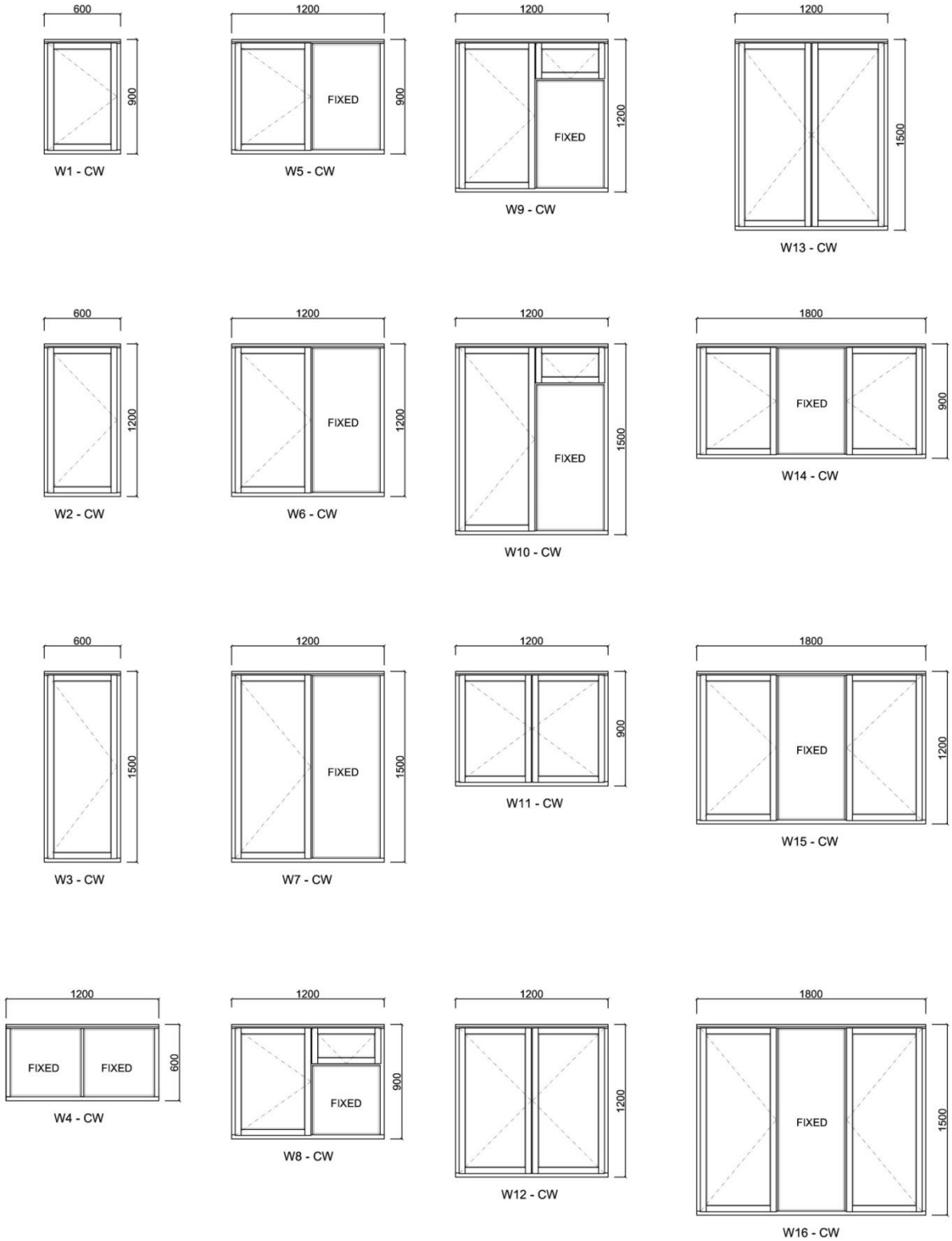


D2 - GAR
DOUBLE

HORIZONTALLY BOARDED SECTIONAL OVERHEAD ALSO PERMITTED

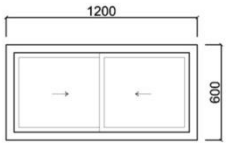
GARAGE DOORS

70. Schedule: Casement windows (New section)

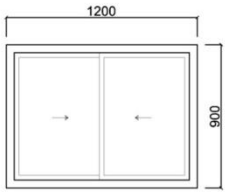


CASEMENT WINDOWS

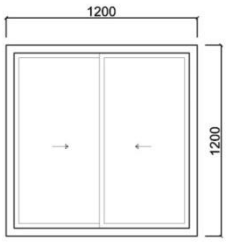
71. Schedule: Sliding windows (New section)



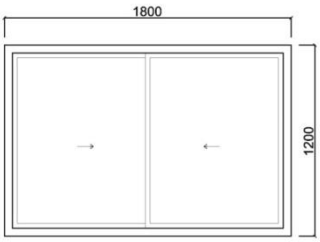
W1 - HS



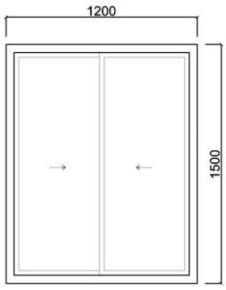
W2 - HS



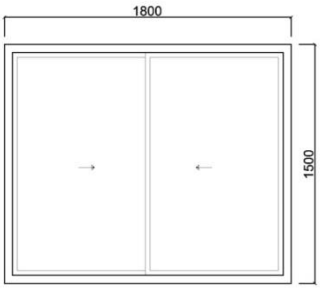
W3 - HS



W4 - HS



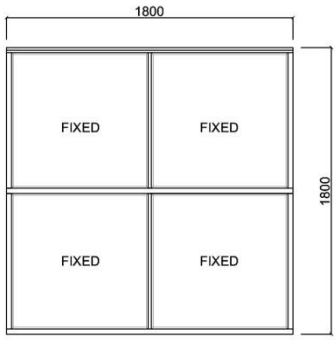
W5 - HS



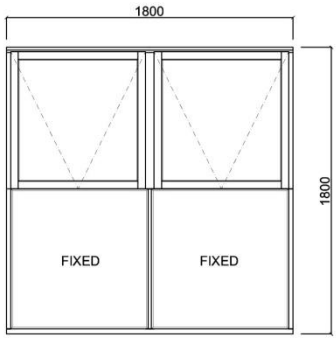
W6 - HS

HORIZONTAL SLIDING WINDOWS

72. Schedule: Picture windows (New section)



W1 - PW

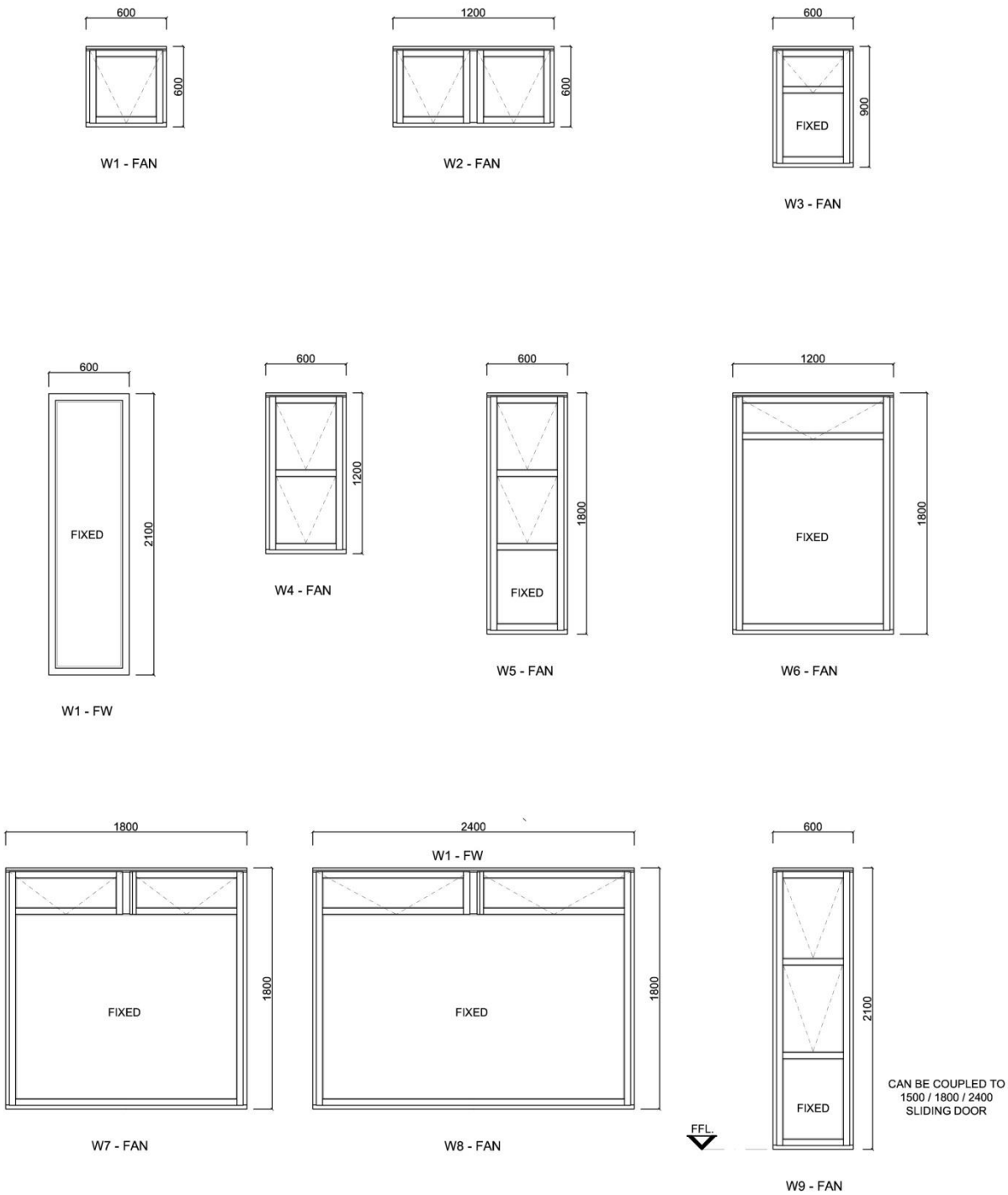


W2 - PW

PICTURE WINDOWS

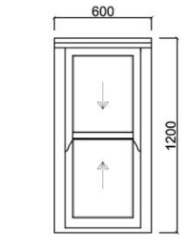
73. Schedule: Top Hung opening out and fixed windows

(New section)

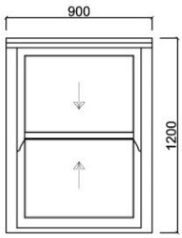


TOP HUNG OPENING OUT
AND FIXED PANE

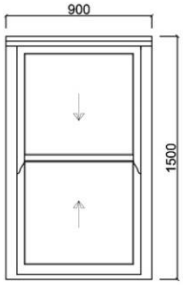
74. Schedule: Vertical sliding or top hung opening out sash



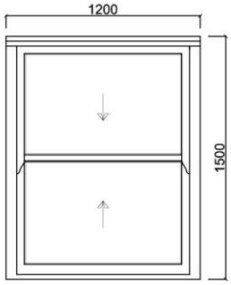
W1 - VS



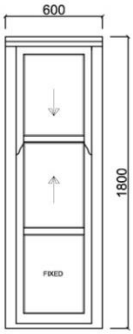
W2 - VS



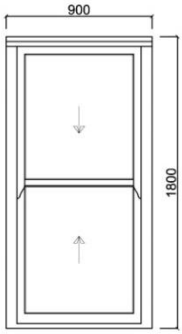
W3 - VS



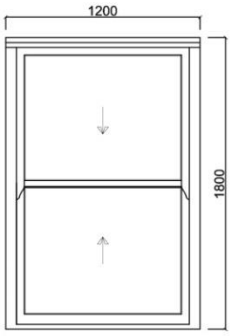
W4 - VS



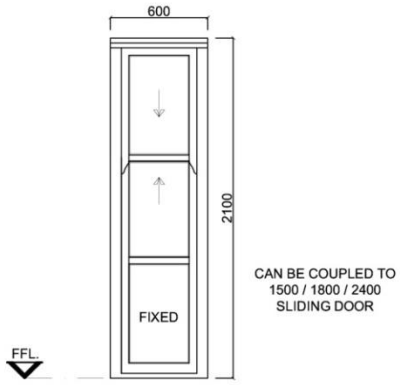
W5 - VS



W6 - VS



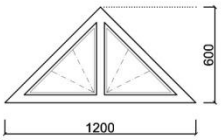
W7 - VS



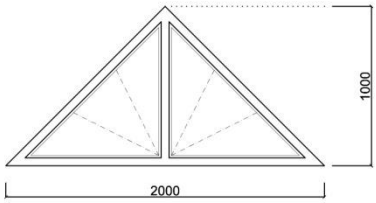
W8 - VS

VERTICAL SLIDING OR TOP
HUNG OPENING OUT SASH

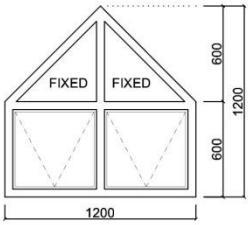
75. Schedule: Dormer windows (New section)



W1 - DW

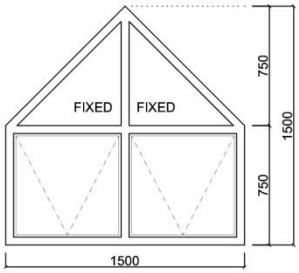


W2 - DW



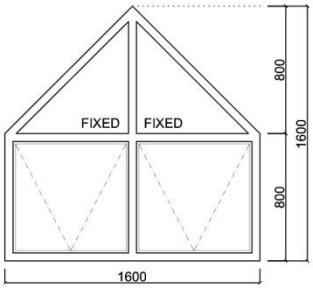
MAY BE HORIZONTAL SLIDERS IN LIEU OF TOP HUNG OPENING OUT

W3 - DW



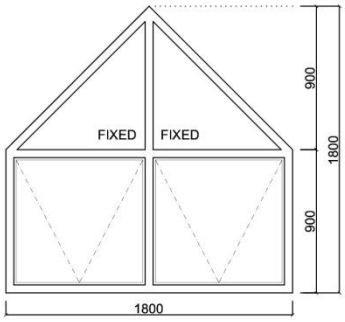
MAY BE HORIZONTAL SLIDERS IN LIEU OF TOP HUNG OPENING OUT

W4 - DW



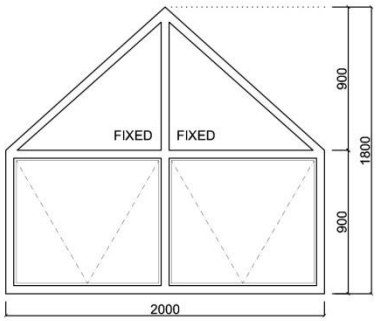
MAY BE HORIZONTAL SLIDERS IN LIEU OF TOP HUNG OPENING OUT

W5 - DW



MAY BE HORIZONTAL SLIDERS IN LIEU OF TOP HUNG OPENING OUT

W6 - DW

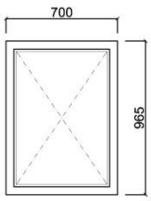


MAY BE HORIZONTAL SLIDERS IN LIEU OF TOP HUNG OPENING OUT

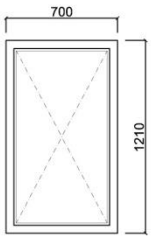
W7 - DW

DORMER WINDOWS

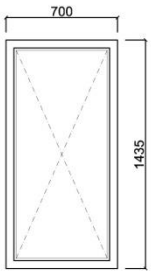
76. Schedule: Roof windows (New section)



W1 - RW



W2 - RW



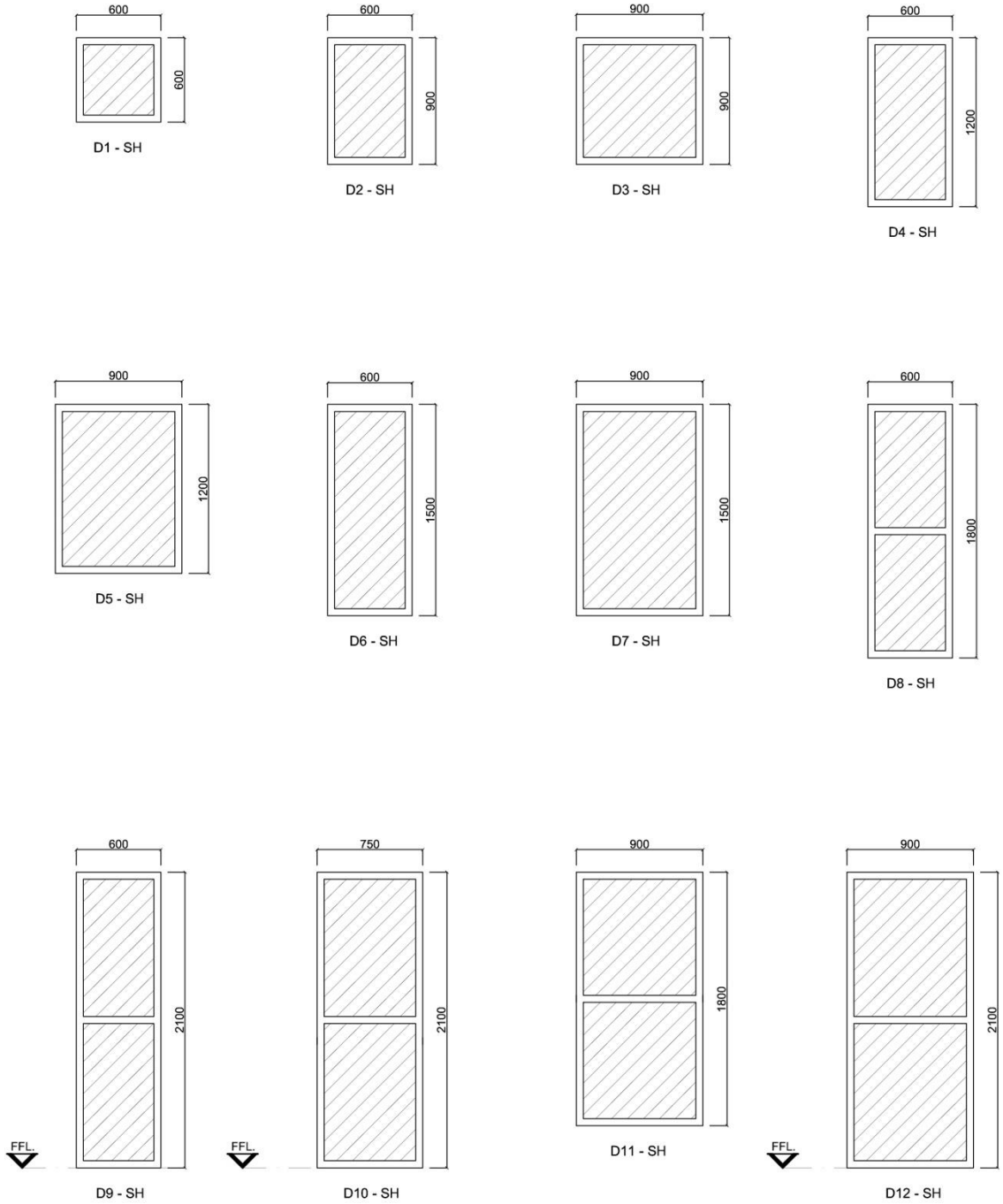
W3 - RW

ROOF WINDOWS

Tony Sandell Type

77. Schedule: Shutters (New section)

Note: Shutter sizes must conform to the relative size of the window to which they are attached.



SHUTTERS

End of Part B