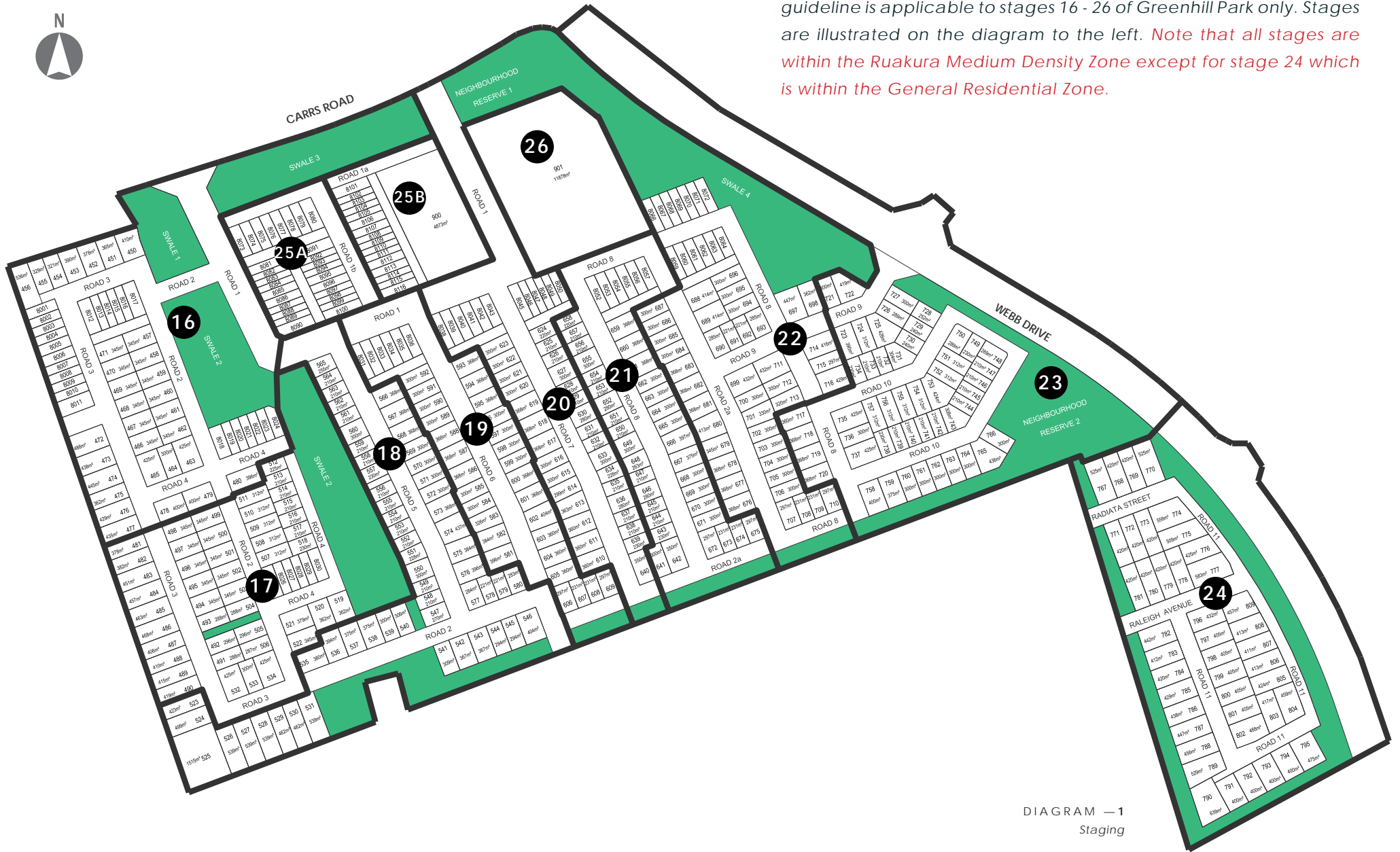


GREENHILL PARK STAGES 16-26 DESIGN GUIDELINES



The Design Guidelines for Greenhill Park must be read in conjunction with the relevant Hamilton City district plan provisions. This design guideline is applicable to stages 16 - 26 of Greenhill Park only. Stages are illustrated on the diagram to the left. *Note that all stages are within the Ruakura Medium Density Zone except for stage 24 which is within the General Residential Zone.*

DIAGRAM — 1
Staging

CONTENTS

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| INTRODUCTION | 4 |
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INTRODUCTION

The integrated planning and design of houses, roads and open spaces is fundamental to achieving high quality residential neighbourhoods. The design and placement of houses creates the character of the streets.

The relationship between houses and streets are critical in establishing the conditions and characteristics for sunlight, daylighting and privacy as well as the overall neighbourhood character. Well designed houses, streets and open spaces can create excellent liveable neighbourhoods that are highly valued and benefit all that reside there.

The guidelines have been developed to preserve and enhance the value of your property, by maintaining standards across the whole development.

This project is about creating such a place, for those that will live there.

VISION

Greenhill Park is an expanding masterplanned Hamilton suburb that showcases high quality houses, streets and public spaces providing a new way of living. A mixture of lot and house sizes and typologies provide choices and value.

Chedworth Properties Limited is developing high quality streets and public places that provide the opportunity for quality houses to be developed. Guidelines will control the quality of the residential development, along with the use of a design panel process ensuring security for those purchasing in Greenhill Park.

Greenhill Park is one of the most desirable suburbs of Hamilton — it provides a range of living opportunities and will be available to a wide proportion of the community, including a range of demographics throughout all stages of life.

PURPOSE

The purpose of these guidelines is to control the form and the quality of residential development in Greenhill Park.

By ensuring that a consistent, high quality approach is taken to the design and construction of houses and front yard landscapes at Greenhill Park, builders and residents will have confidence that neighbouring properties will be of equal or similar quality, elevating the quality and value of the entire neighbourhood, as well as the houses within.

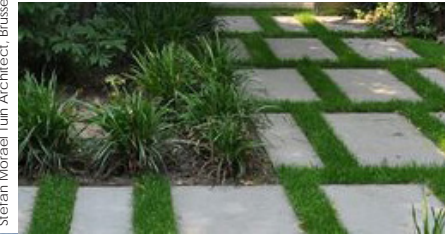
STRATEGY

In order to ensure that Greenhill Park delivers on the vision of becoming one of Hamilton's most desirable suburbs, a strategy is required for the design and construction of the suburb, the public amenities and the houses that all contribute to the overall quality of Greenhill Park.

Chedworth Properties Ltd will do this by —

- Ensuring a mixture of house types, section sizes and lot widths, within each street and throughout Greenhill Park.
- Ensuring houses actively face the street, creating an interactive street environment and community.
- Providing excellent public spaces, streets and reserves for the community. These investments will improve the value of the whole neighbourhood and all of the properties within it.
- Creating a design guideline and a design review panel to administer the process.
- Controlling the architecture to create good quality, well designed contemporary homes for a variety of people and families, i.e. not all the same market or community sector.
- Ensuring that there is variety in the streetscape and the architectural treatment of houses.
- Controlling the front yard landscape design and implementation to create a high quality street environment.

Stefan Morael Tuin Architect, Brussel



Martin Luther King Park — Atelier Jacqueline Osty and Associates



London Studio Architects



TrekFit Outdoor Fitness Solutions

SITE DESIGN

*NOTE - * As Stage 24 is within the general residential zone, separate controls are given which relate to this zone where they differ.*

LOTS

The lot sizes and widths are set out in the Subdivision Scheme Plan which fits into the wider Master Plan. The Master Plan has been developed to ensure a range of section sizes and widths throughout each street and each stage. Variety will be encouraged and controlled through the Design Review Panel.

SITE COVERAGE AND PERMEABILITY

The maximum site coverage is 50% for all lots and the minimum permeability across the site is 20%. Minimum permeability forward of the front building line is 50% to encourage grass and plants while managing stormwater run-off. ** For stage 24, site coverage is maximum 40% and the minimum permeability across the site is 30%. Minimum permeability forward of the front building line is 50%.*

BUILDING SETBACKS

TRANSPORT CORRIDOR SETBACK

Arterial Roads, including Webb Drive — 5 metres

Collector Roads and Local Roads, including Local Access Roads and Lanes — 3 metres

FRONT YARD

Where the minimum setback of houses to the front boundary is 3 metres, a front yard of 3 to 5 metres is encouraged to promote a staggered building line along the street while ensuring houses continuously address the street environment. Garages need to be setback a minimum of 5m from the property boundary.

SIDE YARD

It is the combination of side yards on either side of a house that creates the openness or gaps between houses. The side yards at Greenhill Park open up the space on the north and west side of the lots allowing sun into living areas and yards. Side yards with a predominately northerly or westerly aspect shall be a minimum of 2m while side yards with a predominately easterly or southerly aspect shall be a minimum of 1m. This relationship

creates a minimum 3 metre gap between houses. Applications can be made for development to be 'zero lotted' or built to the southern side boundary with neighbours approval. These applications will be assessed on a case by case basis. * For stage 24, side yards are to be a minimum of 1.5m.

REAR YARD

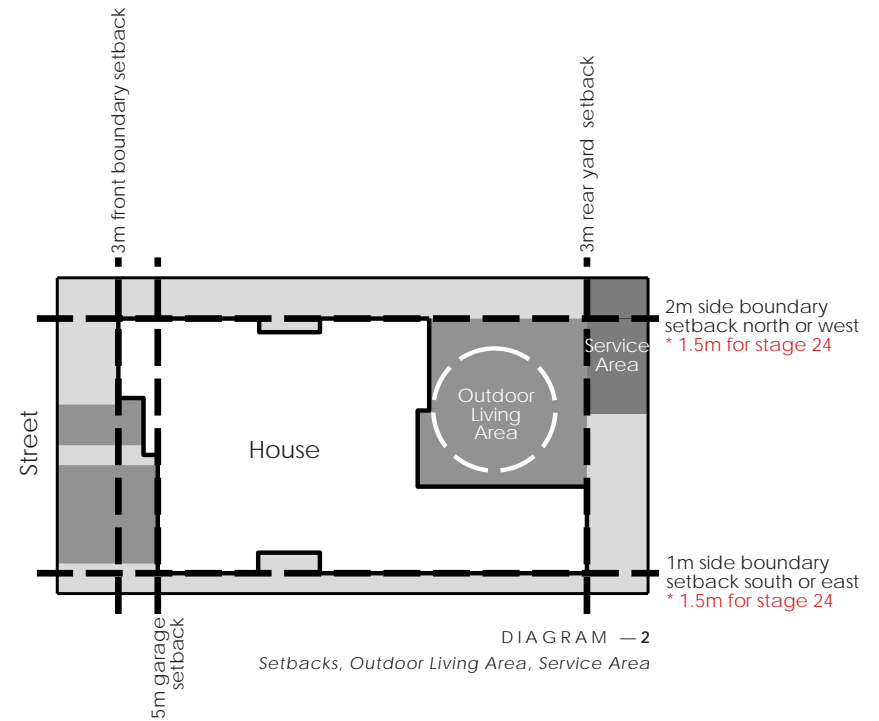
A minimum rear yard setback of 3m is required. Corner sites do not have this requirement as technically they do not have a rear yard as they have two street frontages and two side yards. * For stage 24 the DRP will require a 3m rear yard as well, unless there is a valid reason for a reduced setback.

GARAGE SETBACK

All garages with direct access to a local or collector road shall be setback a minimum of 5m from the transport corridor boundary.

HEIGHT IN RELATION TO BOUNDARY

There are no HIRB controls in the Ruakura Medium Density Zone (All stages except stage 24). * For stage 24, please refer to the relevant HCC District Plan HIRB for the general residential zone rules .



DESIGN FOR QUALITY

In order to create the right conditions for the development of a high quality residential suburb, it is important to control key aspects of the neighbourhood. This is called setting the building blocks. The following section outlines the key building blocks to be controlled at Greenhill Park.

SETTING THE BUILDING BLOCKS

Create a mixture of section sizes and widths that require a variety of built outcomes.

Create a mixture of two storey and single storey homes to promote diversity of housing stock and form

Create street definition by controlling setback, height and specific street environments.

Control key aspects of the design that impact on the community feel of the development — corners, street ends, entrances and key sites.

Build the structures. Deliver excellent streetscapes and reserves that leverage community feel and participation.

MATERIALS

Quality materials will be used in the construction of all facets of the houses, fences, walls and landscape features to ensure durability and functionality.

Some materials may lower the quality of the neighbourhood. These materials are discouraged from use —

Fibre cement board.

Reflective glass.

Bitumen coated soft board.

Unpainted or unstained rough sawn timber.

Timber or steel framed construction systems supporting monolithic cladding systems (plaster is acceptable on concrete and masonry, including brick veneer).

ARCHITECTURE

The following elements are required to comply with minimum standards —

LOT TYPES / EDGE TREATMENTS AND
THEIR SPECIFIC REQUIREMENTS
DEVELOPMENT BLOCKS AND THEIR SPECIFIC REQUIREMENTS
HOMESTAR RATING
BUILDING HEIGHT
GARAGE DOORS
ON SITE PARKING
HOUSE ORIENTATION
ROOF FORM
VARIETY
OUTDOOR LIVING AREAS
RECESSION PLANES
PRIVACY
SOLAR ACCESS FROM THE NORTH
MASSING
ENTRANCE
WINDOWS
VERANDAS AND BALCONIES
OUTBUILDINGS AND STRUCTURES
TV AERIALS AND MASTS
LINTELS



LOT TYPES AND EDGE TREATMENTS

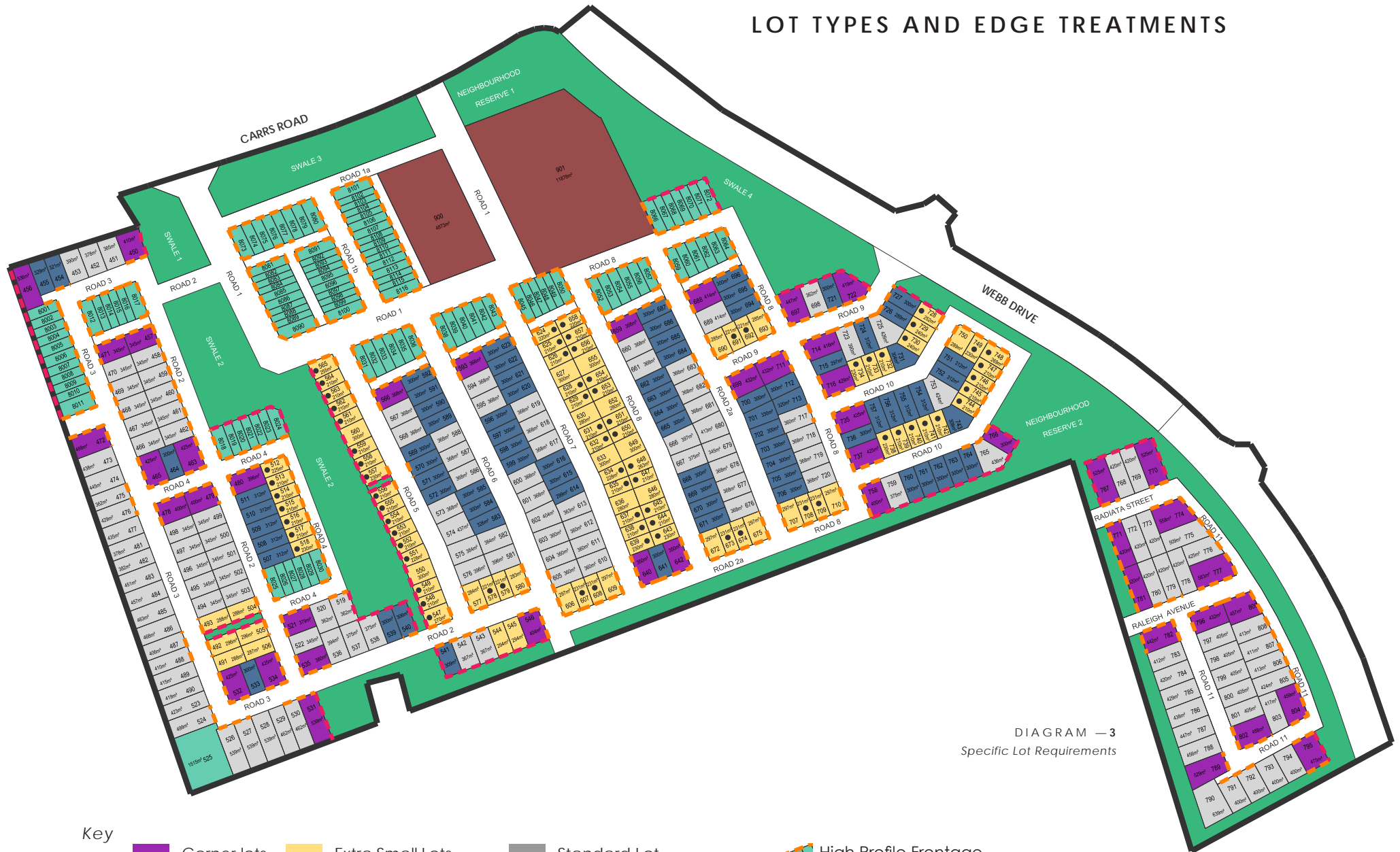


DIAGRAM — 3
Specific Lot Requirements

Key

- Corner lots
 - Extra Small Lots
 - Standard Lot
 - High Profile Frontage
 - Small Lots
 - Comprehensive Development Lots
 - Neighbourhood Centre*
 - Lots Fronting Open Space
 - Extra Small Lot With Outdoor / Service Area Relaxation (see page 12)
- * Subject to Separate Design Guidance

CORNER LOTS

The design of the lot and the house should address both streets, with windows and outdoor living areas. Corner lots should be considered carefully to ensure that the house addresses both streets and wraps around the corner. Indoor living areas should be placed and designed to interact with both sides of the corner lots.

SMALL LOTS

Small lots are typically 300 - 339m². A high proportion are required to be two storeys to ensure setback controls can be met and that there is still sufficient outdoor living space at ground level. Some single storey homes may be approved at the DRP's discretion depending on the quality of the design outcome.

EXTRA SMALL LOTS

Extra small lots are typically between 200 - 300m² and require further design consideration including zero-lotting (zero boundary setback for garage on most southern or eastern boundary) and careful layout of the home. These lots must be two-storey homes. The following page of the design guide highlights typical typologies to demonstrate an acceptable design solution and provides further information.

COMPREHENSIVE DEVELOPMENT LOTS

Comprehensive development lots are to be designed comprehensively.

Buildings are to be a minimum of two-storeys in height and may be up to three-storeys. It is critical that the DRP is engaged early on in the design process as design expectations are high for these lots. Further information is provided on pages 13 - 16.

STANDARD LOTS

Standard lots are typically 340m² or larger and are of a size that a single storey home can be made to work well. There is often width for a double garage while still maintaining the required maximum 50% frontage width for the garage itself.

HIGH PROFILE FRONTAGES

Frontages at the end of streets, on corners and in locations where they are highly visible are to be high quality and use premium materials. An overall higher level of architectural merit and finish will be expected for these frontages. Roof designs are to be more prominent with strong, simple forms and additional height / steeper pitch.

LOTS FRONTING OPEN SPACE

Houses that have a boundary interface with an open space will be required to activate this edge, have sufficient surveillance of the open space and be of a high design quality along this boundary.

EXTRA SMALL LOT TYPOLOGIES

All lots less than 300m² require additional design consideration to be successful and must be two storey homes. Variation in materiality, colour and landscape design must be provided to ensure variation between homes. Note that comprehensive development blocks are subject to separate controls and further information is provided on pages 13 - 16 for these blocks.

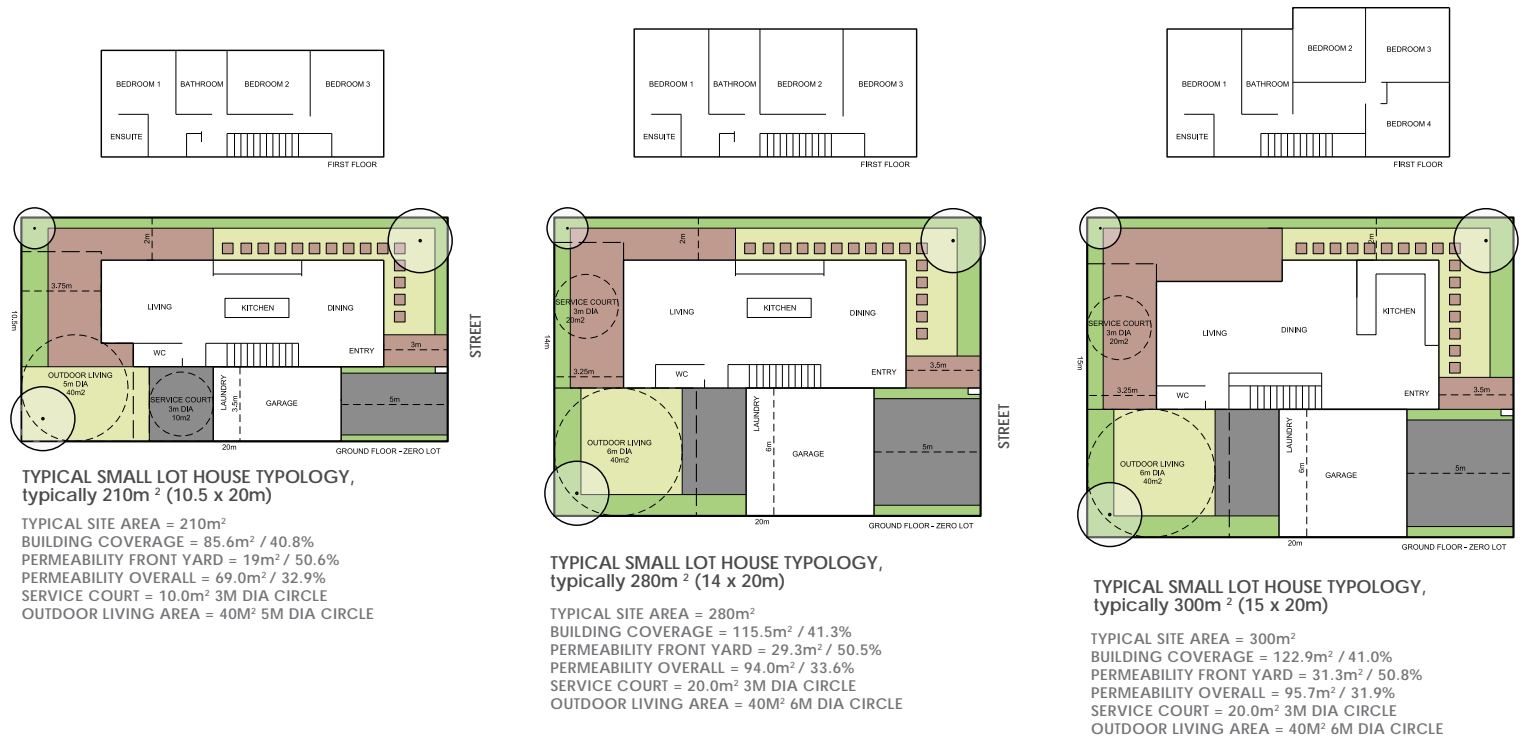
A resource consent has been obtained for delivery of homes on some of the smaller of these "extra small lots" including allowance for infringements of the outdoor living area circle diameter (5m dia instead of 6m dia), and service area size (10m² instead of 20m²). Note that the service area still needs to fit a 3m diameter circle. The lots which have this relaxation are lot #'s 512, 513, 514, 515, 516, 517, 518, 547, 548, 549, 551, 552, 553, 554, 555,

556, 557, 558, 559, 561, 562, 563, 564, 565, 578, 579, 607, 608, 624, 625, 626, 628, 629, 631, 632, 634, 635, 637, 638, 639, 643, 644, 645, 647, 648, 650, 651, 653, 654, 656, 657, 658, 673, 674, 691, 692, 708, 709, 728, 729, 730, 732, 733, 734, 738, 739, 740, 741, 742, 744, 745, 746, 747, 748 and 749. These lots are shown by a dark grey dot on the Lot Types Plan on page 10. A copy of this resource consent is attached to each sale and purchase agreement.

The below diagrams showcase indicative acceptable typologies for the most common extra small lot sizes - noting that they all show a garage which is "zero lotted" on their most southern or eastern boundary and that this is an expected and encouraged design outcome.

REFER RESOURCE CONSENT #010.2019.10790.001

DIAGRAM — 4
Extra Small Lot Typologies



COMPREHENSIVE DEVELOPMENT BLOCKS

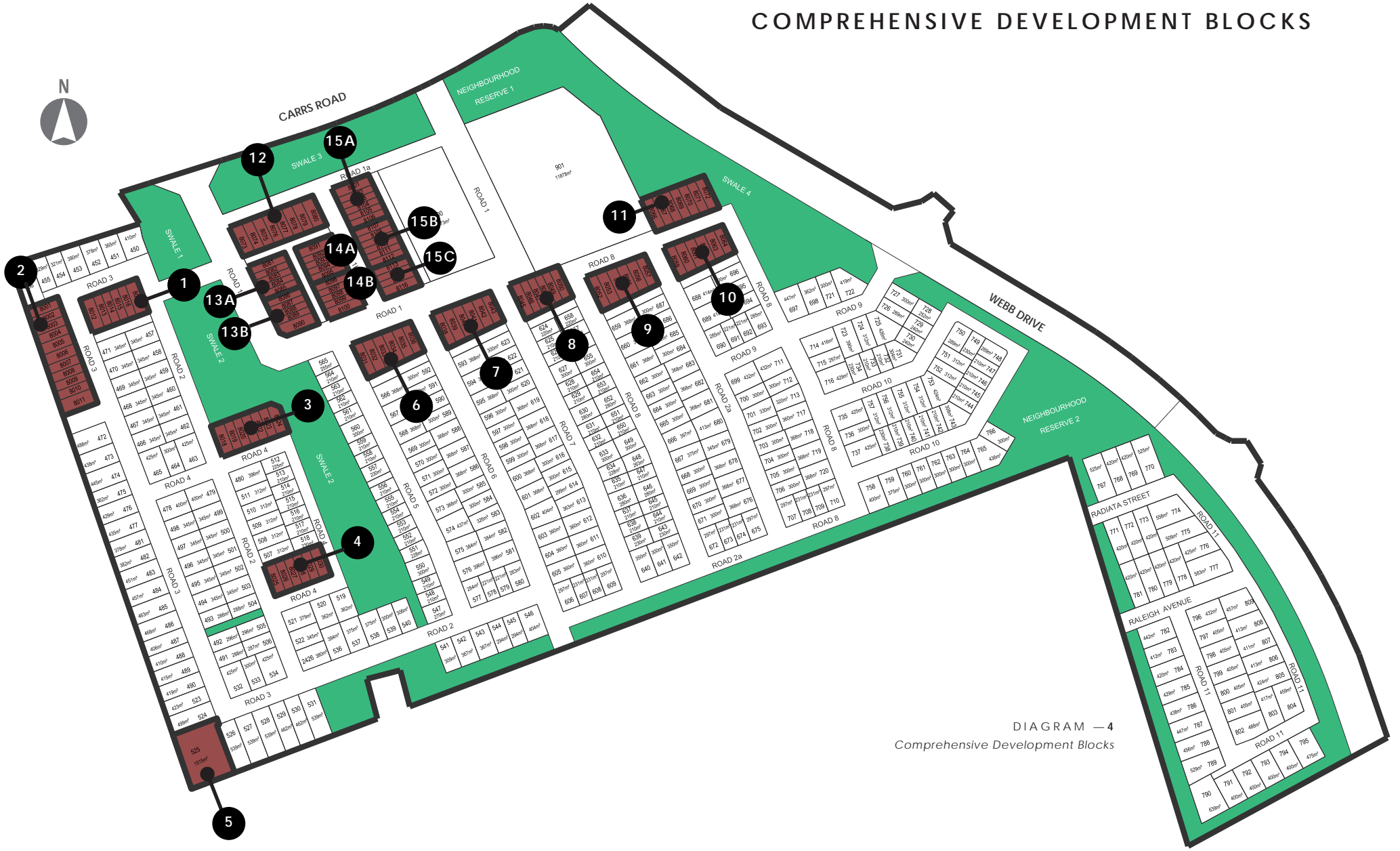


DIAGRAM — 4
Comprehensive Development Blocks

COMPREHENSIVE DEVELOPMENT BLOCKS

There are 19 separate comprehensive development blocks as outlined on diagram 4 on the previous page. Each of these blocks is to consist of a series of two to three storey attached terrace or duplex homes. Apartment typologies may be considered by the DRP if the design outcome is excellent noting that you will require additional resource consents from HCC. Architectural variation is to be provided between the blocks and a gap between built form is to be included where two development blocks have a shared boundary. A series of assessment criteria outline the performance standards that the DRP will use to assess the design outcomes for these homes. Additional requirements are outlined below.

- The design of the comprehensive development blocks are to be bespoke design solutions and you **must** engage a reputable and competent architectural firm to undertake the design.
- You must undertake all three stages of the review process as outlined on pages 53 -55.
- Design must integrate / consider the design of adjoining freestanding homes.
- Early engagement with the DRP is required to ensure that the design meets the panels expectations.

NOTE - This section only applies to the Comprehensive Development Blocks



"Look and Feel Examples For Comprehensive Development Blocks"

ASSESSMENT CRITERIA

1. Buildings need to be designed to form a positive relationship with the street and parks so that:

- They provide for streetscape and park amenity, through the careful placement of entry doors, windows, porches, balconies, entry courtyards as these attributes help to create an active frontage to the street.
- They demonstrate the transition between the street or park (public realm), the building's front yard (semi-public realm) and the building's rear yard.
- Visitors know how to access the building.

2. Design balconies so that they face onto public roads / parks, including a clear outlook which is not of adjacent properties. It is preferable that balconies which face roads be designed as recessed elements so they do not protrude from the face of buildings.

3. Site buildings to maximise sunlight into indoor and outdoor areas:

- Maximise north, west and east facing windows.
- Maximise exposure to private open space.

4. Make provision within each residential unit for:

- Collection of recyclable materials and an area for rubbish bins, ensuring they are located and designed not to be visible from the street or parks.



"Look and Feel Examples For Comprehensive Development Blocks"

- Storage area for outdoor equipment e.g. bicycles, prams, sports equipment etc.
5. Use landscaping to provide visual interest, create privacy and shelter people from prevailing winds.
 6. Maximise privacy between dwellings by taking extra care over the interface at the sides of adjacent buildings which are not connected by a party wall.
 7. Design buildings so they provide visual interest, diversity and variation. This helps to avoid monotonous repetition of building form including: roof pitches, materials, decks, courtyards, balconies and other detailing.
 8. Design buildings to address local conditions including street orientation, laneway configuration (if there is one), views and climate. Use eaves to control summer sun, provide shelter from rain and shelter courtyards from wind.
 9. Avoid locating satellite dishes and clothes lines at the front of buildings. Locate these items so they are not clearly visible from the street or park.
 10. Garages which are accessed from the street need to be designed and located so that:
 - There is sufficient space to park a car between the site's front boundary and the front of the garage.
 - Garages are set back from the dwelling's main façade.
 - They relate to the building's design in terms of height, roof form, materials, detailing and colours.



"Look and Feel Examples For Comprehensive Development Blocks"

HOMESTAR™ RATING

All houses will be designed to achieve a minimum of a Homestar™ Rating of 6 or equivalent. The below link to the Homestar™ checklist for standalone homes is to give an idea of the design and construction aspects required to meet a rating of 6 and is for information only. The DRP will not be requiring that the official Homestar process be undertaken.

https://www.nzgbc.org.nz/Attachment?Action=Download&Attachment_id=3844

BUILDING HEIGHT

The maximum height of buildings is 10m.

* For stage 24, please refer to the relevant HCC District Plan General Residential Zone height rule.

GARAGE DOORS

The design guidelines encourage garage doors to be setback at least 0.5 metres from the front of the house to reduce the dominance of garages on the streetscape. Garage doors should occupy a maximum of 50% of the width of the front elevation of the house and be a minimum of 5m from the transport corridor boundary to ensure space for a car to park without blocking the footpath.

ON SITE CARPARKING

A minimum of three on site car parks are required for homes with four or more bedrooms with a minimum of two of these being in either a side by side or in a stacked garage. At grade car parking must be in front of a

garage door and no separate parking pads not in front of the garage will be approved.

HOUSE ORIENTATION

Houses should be designed to positively address the street — front doors and indoor living areas should have a relationship with the street. Windows from living areas should be included in the front of each house and should face the street.

ROOF FORM

Roof forms should be designed to emphasize the vertical dimensions and be simple in form — either gables, mono-pitched, skillion or similar simple roof forms are acceptable. No hip roofs will be accepted. A high proportion of attached homes are to have steep gabled roof forms.

The roof form over the living part of the house should be more dominant than the roof form over the garage, through increasing or stepped height. The residential roof form should be the primary roof form and should include the pedestrian entrance. The roof form over the garage should generally be secondary and less prominent.

VARIETY

Variation is required through form, roof-line, massing, materials, colour and detail. No two houses should be of the same or similar design within a sequence of four houses in a street.

* This is at the discretion of the Design Review Panel.

Roof forms designed to emphasise the vertical dimensions

'Look And Feel' Examples For Architecture

A staggered building line is encouraged along the street



Paua Architects, Le Quesnoy Place, Cambridge



Le Quesnoy Place, Cambridge, by Paua Architects



Architect Luc Bouliane



Space Division Architects, Auckland

Lots fronting lane and open space



Seaview House, by Jackson Clements Burrows Architects

Massing articulated to emphasise the pedestrian entrance to the house

'Look And Feel' Examples For Fences, Walls And Letterboxes

Willemsen U Architects



Low boundary fence interface with open space



DMOA Architecten

Lots fronting open space

Privacy fence

Anselmi Ridge



Hobsonville, Auckland



Teche Architecture + Interior Design



Outdoor living areas



Front doors and indoor living areas with a relationship to the street

Elwood, by Inform Designs

Cambridge Building Services

Proctor And Matthews Architects



Massing articulated to emphasise the pedestrian entrance to the house

OUTDOOR LIVING AREAS

Outdoor living areas shall be provided on each lot. The outdoor living space shall be a minimum area of 40m² and large enough to accommodate a circle with a minimum diameter of 6 metres. The outdoor living area must be accessed directly from a living area inside the house and face north of east or west. Note that some Extra Small Lots have a rules relaxation on circle diameter. See page 12. Also note that this rule does not apply to the Comprehensive Development Blocks and a separate Resource Consent may need to be applied for through HCC for these comprehensive blocks.

* For stage 24, please refer to the relevant HCC District Plan General Residential Zone Outdoor Living Area rules.

RECESSION PLANES

There are no height in relation to boundary or recession plane controls in the Ruakura Medium Density Zone rules. Instead side, rear and front yard setbacks are used to control separation between homes. * For stage 24, please refer to the relevant HCC District Plan General Residential Zone Recession and Height in Relation to Boundary rules

PRIVACY

Privacy should be provided for each lot through the use of rear privacy fences, front yard planting and the placement and design of front elevation windows. Privacy fencing in the front yard should be designed to complement the design of the house and only on north facing lots

SOLAR ACCESS FROM THE NORTH

Houses should be placed and designed to ensure solar access to the north side of each lot and the house. No blank or windowless walls should face north.

MASSING

Massing should be articulated to ensure interesting steps and forms within the house that relate to the overall design. The mass of the living part of the house should be dominant over the garage or the secondary massing. The mass of the garage should recede from the front of the house.

ENTRANCE

The pedestrian entrance to each house should be emphasised through the use of architectural massing, roof form, colour, increased architectural detail and quality around the pedestrian entrance.

The pedestrian entrance to the house should be directly connected to the street i.e. not cut off by a fence or planting. An architectural structure can be placed over the front pedestrian entrance way to give emphasis to the front door and its relationship to the street.

WINDOWS

Windows should be placed and designed to look over the street. The size, shape, proportion and arrangement of the windows should contribute positively to the contemporary form of the house. External features can be used to provide shade over windows, such as louvres.

VERANDAS AND BALCONIES

Verandas and balconies should be strong and functioning parts of the front elevation of the houses. Verandas and balconies should be designed to —

- Provide articulated house frontage
- Activate the street and provide opportunity to interact with neighbours
- Provide visual surveillance
- Create a connection between internal and external living spaces

OUTBUILDINGS AND STRUCTURES

The design of outbuildings and structures should complement the design of the main house.

TV AERIALS AND MASTS

TV aerials and masts should not be attached to the front elevation or front roof edge of houses. Aerials and masts should be set back, while still being sited and oriented to be functional.

LINTELS

All lintels (including all door and window lintels) are to be clad in the same material as the adjoining wall unless they are made into an architectural feature i.e. significantly recessed.

LANDSCAPE

The following elements are required to comply with minimum standards —

- FENCES AND WALLS
- SERVICE AREAS
- LETTERBOXES
- DRIVEWAYS
- FENCING AND DRIVEWAY PLANTS
- PLANTING
- ENTRANCE PATHS AND DRIVEWAYS
- EXTERIOR LIGHTING
- ON-LOT STORMWATER EFFICIENCY

*NOTE IT IS A REQUIREMENT THAT ALL LANDSCAPE WORKS BE DELIVERED TO THE SATISFACTION OF THE DRP PRIOR TO ANY OCCUPIER TAKING POSSESSION



FRONT YARD

FENCES AND WALLS

Fences and low walls should be designed to contribute positively to streetscape amenity and complement the design and materials of the house. Letterboxes should be incorporated into the front fence where possible, complementing the front fence design. All fencing returns or gates visible from the street should match the front fence material or colour.

Materials that are not permitted in the front fence are —

- Unstained or unpainted pine
- Sheet panels (e.g. fibre cement) and acrylic spray finish

Fences on sloping sites should be designed with a sectioned or stepped profile. Retaining walls should be screened with planting and preferably stepped. Pine must be stained or painted. Exposed pole retaining walls are not permitted.

SERVICE AREAS

Service areas should be readily accessible from each house, with an area of 20 square metres and a minimum dimension of 3 metres.

Service areas (containing rubbish and recycling bins, garden storage, gas systems and bottles etc.) should be contained within side yards or at the rear of the lot and should be screened from view from the street.

Note that some Extra Small Lots have a rules relaxation on area requirements. See page 12. Also note that this rule does not apply to the Comprehensive Development Blocks and a separate Resource Consent may need to be applied for through HCC for these comprehensive blocks.

* For stage 24, please refer to the relevant HCC District Plan General Residential Zone Service Area rules.

LETTERBOXES

Letterboxes should be designed as part of the front yard landscape design and constructed to be complementary to the house. They don't need to be the same, but elements of the colour, form, texture or materials should complement the house. Letterboxes should not be made from unrelated materials and not be purchased and 'plonked' in front of the house. They should be considered in the design and the implementation of the front yard landscape plan.

Letterboxes are to be placed between the driveway and front door path to prevent people from parking over the front door path.

DRIVEWAYS

Indicative driveway locations are shown on pages 23-25. Alternative locations can be submitted and approved at the DRP's discretion. All driveways will be of exposed aggregate concrete construction with 8% black oxide using Bowers concrete. By specifying the concrete supplier for the vehicle crossing/driveway it will ensure consistency across Greenhill Park. Concrete cuts are to be at a fine grain and rectangular geometries used. Parking pads which are separate to the driveway are discouraged unless suitably screened and integrated into the design. Driveways must be open to the street and gates are not permitted.

* This at the discretion of the Design Review Panel.

FENCE AND WALL DESIGN GUIDELINES

| Code | Boundary Fence Interface | Height |
|------|---|-----------------|
| A | Front yard onto street (not compulsory) | 1.0 metres Max |
| B | Side yard onto neighbour (compulsory) | 1.0 metres Max |
| C | Side/rear yard onto neighbour (compulsory)— behind front yard | 1.8 metres Max |
| D | Gate visible from street (compulsory) - 50% permeable, generally 6m back from road reserve and minimum 1m behind front of house | 1.8 metres Max |
| E | Corner site northern yard onto transport corridor (not compulsory) - 50% permeable | 1.8 metres Max |
| F | Side yard onto parks, reserves, cycleways and walkways | 1.0 metres Max |
| G | Back yard onto parks, reserves, cycleways and walkways | 1.0 metres Max* |

PRIVACY FENCE (P)

Fences can step up higher than 1.0 metres only if the yard is adjoining a park, reserve, cycleway or walkway and the fence is designed to complement the design and materials of the house and is integrated into the overall design of the garden. All privacy fences will have a minimum visual permeability of 50% and should be no greater than 50% of the width of the yard.

* This at the discretion of the Design Review Panel

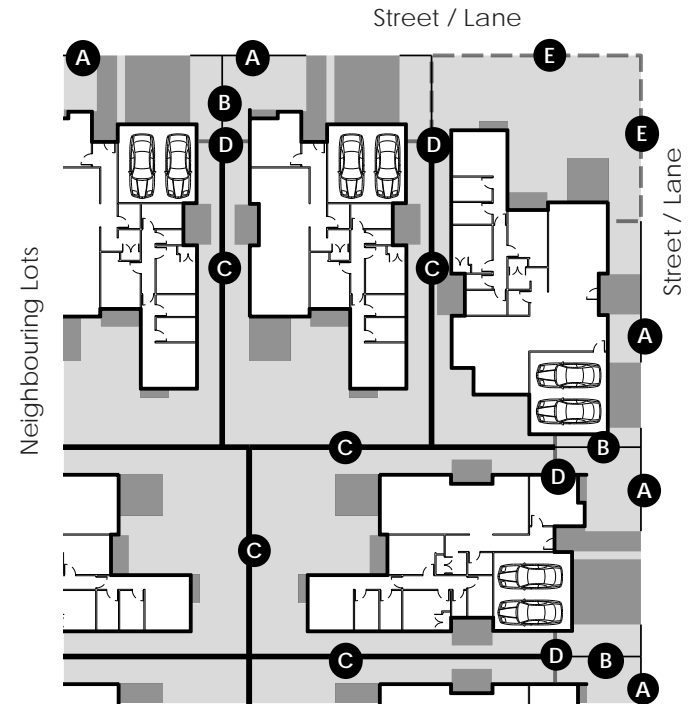


DIAGRAM — 5

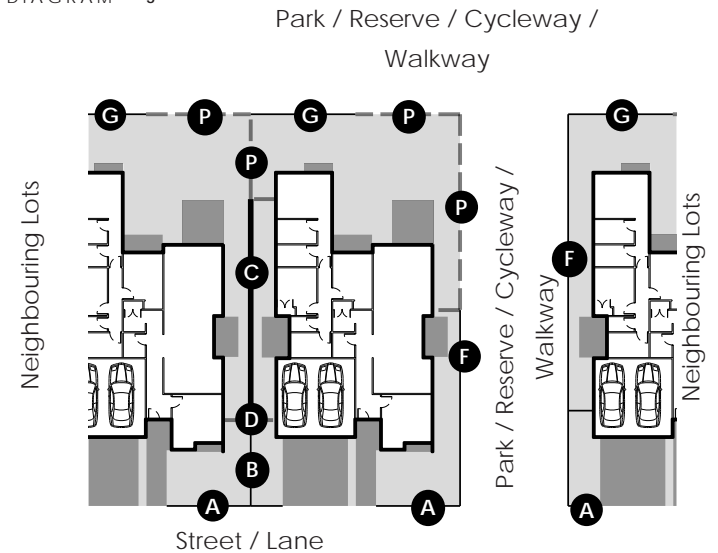


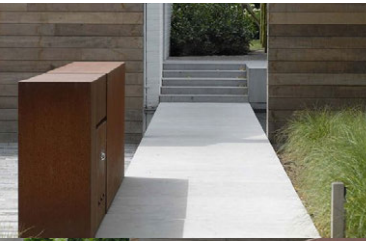
DIAGRAM — 6

'Look And Feel' Examples For Fences, Walls And Letterboxes

Filip Van Damme

Contemporary Australian Garden Design

Letterbox designed to be complementary to the house



Low boundary fence interface with street or lane



Inarc



Hearty Design Studio



Sheed Architecture And Design



Privacy fence



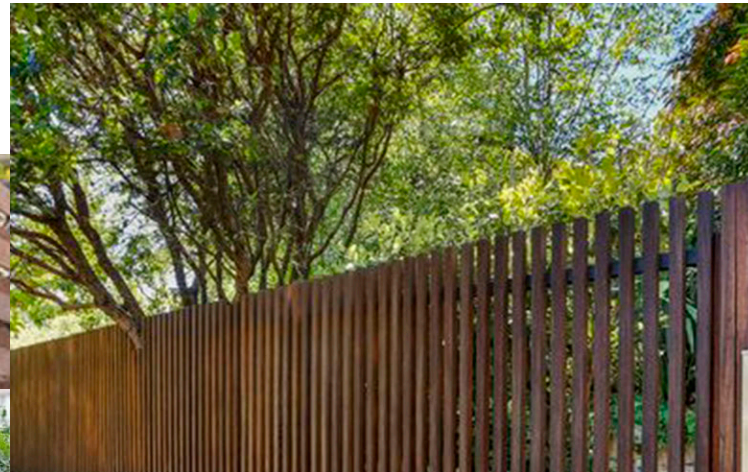
Wagner Residence



Horst Architects

'Look And Feel' Examples For Fences, Walls And Letterboxes

Future Green Studio



Anthony Wyer + Associates



Low boundary fence interface with street or lane



Gates should be integrated with the fence design

Letterbox integrated in the fence design

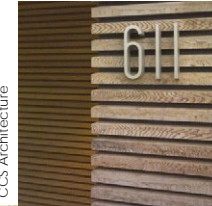
Privacy fence designed to complement the design and materials of the house



McKinney York Architects

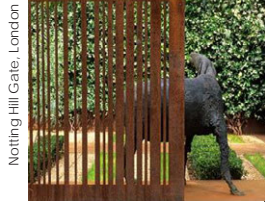
DMDA Architekten

'Look And Feel' Examples For Fences, Walls And Letterboxes



CCS Architecture

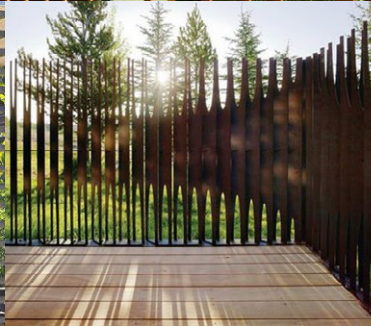
Low boundary fence interface with street or lane



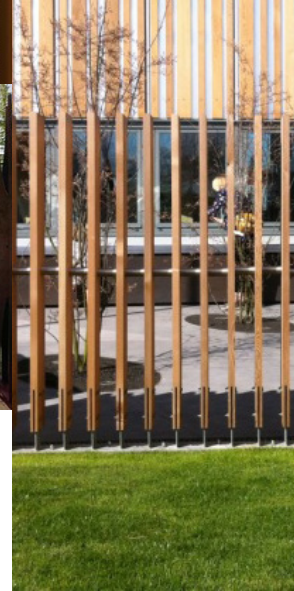
Notting Hill Gate, London



Shed Architecture And Design



Jackson, Wyo Architects



Hereford College Of Arts Hub



Steffen Welsch Architects

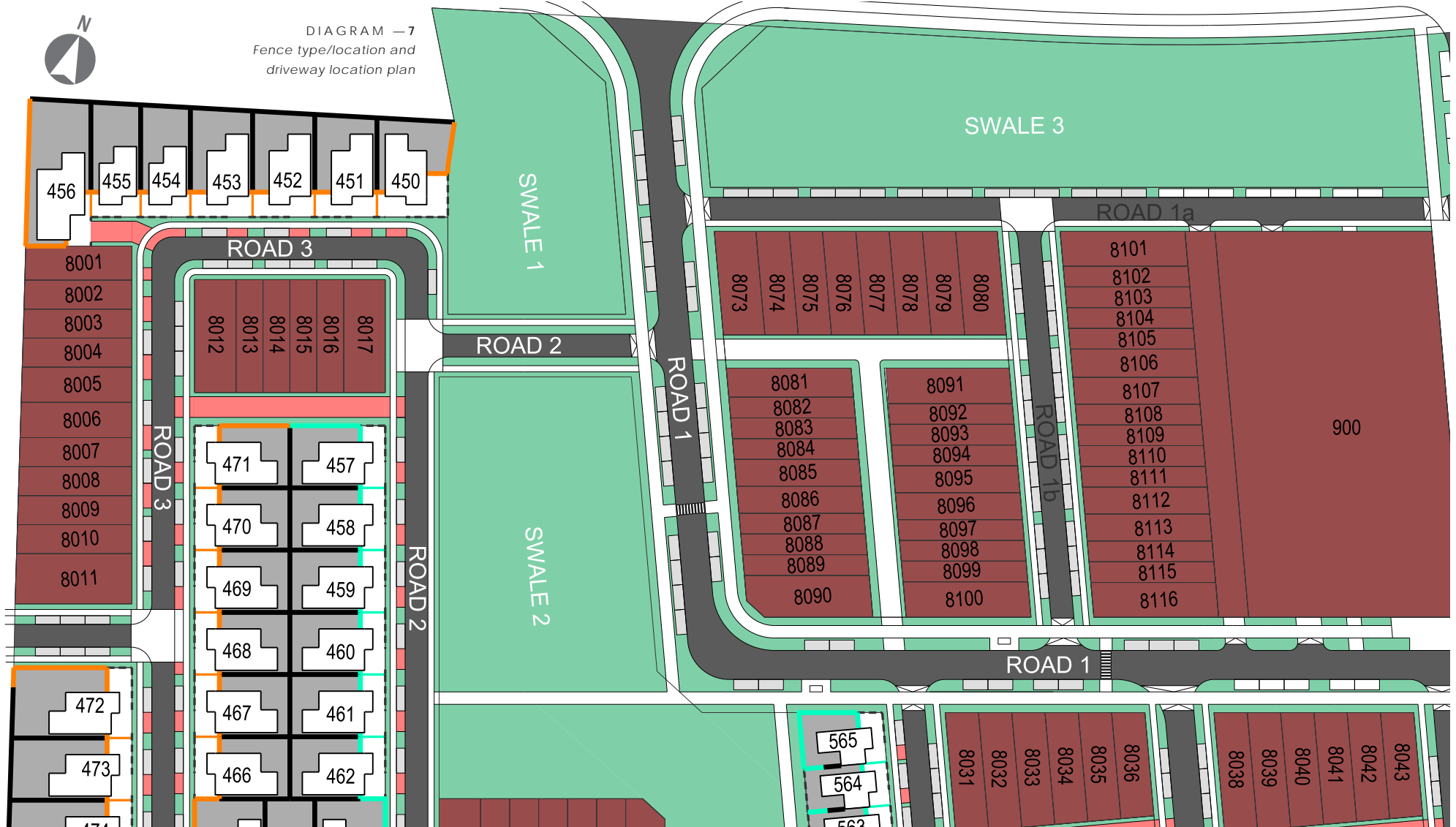


Filip Van Damme

FENCING AND DRIVEWAY PLAN - NORTHWEST



DIAGRAM —7
Fence type/location and
driveway location plan



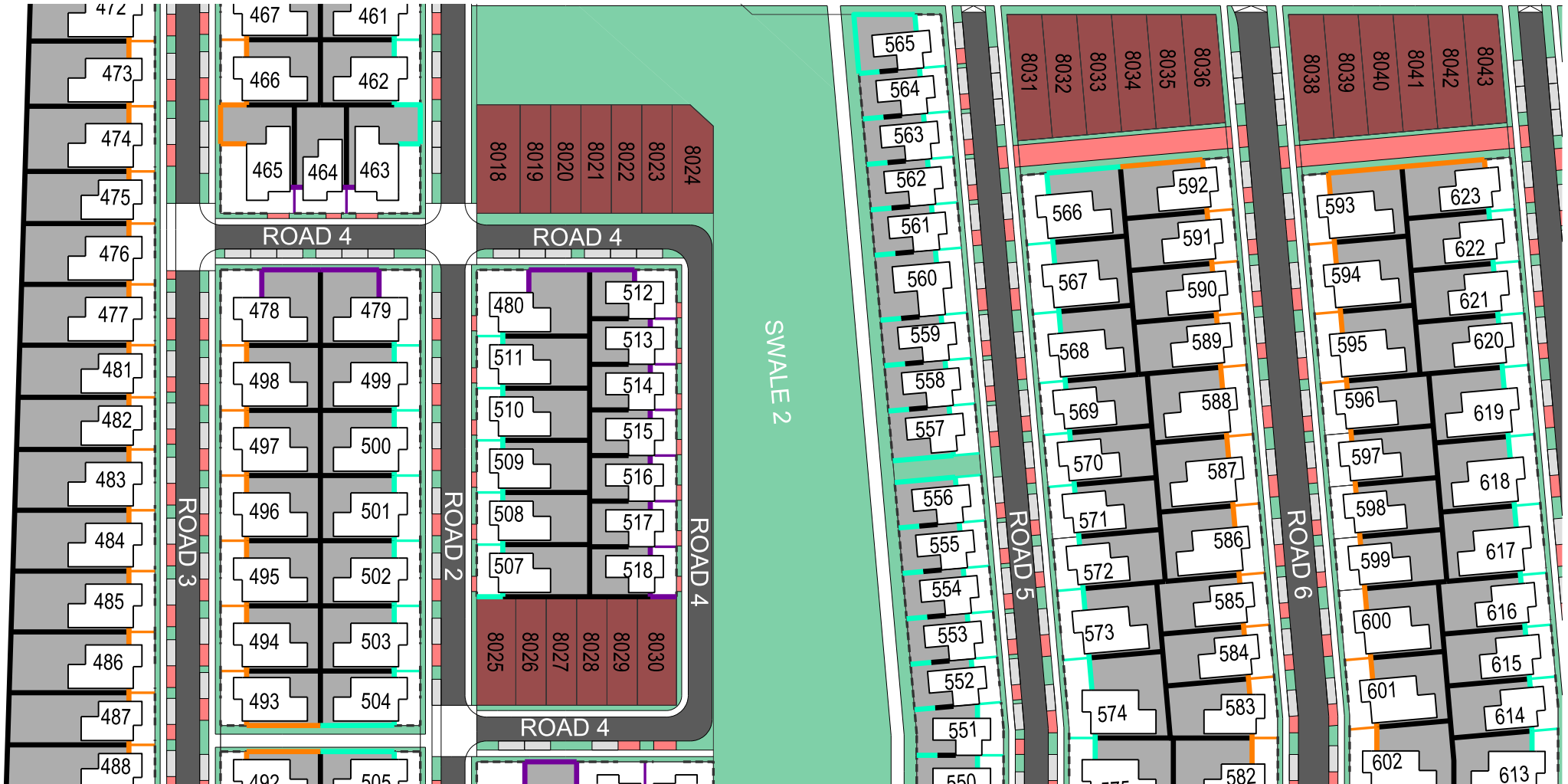
Key (refer following pages for
fence designs)

- | | | | |
|--|--|--|-------------------------------------|
| | Indicative Driveway Location | | Type B 1.0m Fence |
| | Comprehensive Development Lot (Bespoke Design Required) | | Type C 1.8m Screen Fence |
| | Indicative backyard extent | | Type C 1.0m Fence |
| | Type A 1.8m Screen Fence | | Type D 1.8m Screen Fence |
| | Type A 1.0m Fence | | Type D 1.0m Fence |
| | Type B 1.8m Screen Fence | | 1.0m Bespoke Design (Optional) |
| | | | Type E 1.8m Backyard Fence |
| | | | Type F 1.8m Webb Drive Screen Fence |

NOTES

1. Alternative fence designs can be approved at the Design Review Panels (DRP) discretion.
 2. Interpretation of the fence layout against a proposed house design to be reviewed by the DRP prior to installation including proposed surface finish.
 3. All houses shown are indicative and meant to give an indication of fences relationship to house only.
 4. Screen fences shown are to be adapted to suit actual house design, screen fences along open spaces can be replaced by the same type of 1m fence if required and vice versa*.
 5. All gates to match adjoining fence design in height, materiality and design.
 6. All front yard fences to be set back from the adjoining building line (or neighbours whichever is set further back) by a minimum of 1m including the screen fence return. If the adjoining house has not been built then a minimum dimension of 6m from the street edge to be used*.
 7. Front door paths and lot side driveways have not been shown, neither have letterboxes.
 8. Driveway locations are indicative only and alternative locations will be considered by the DRP.
- * Seek DRP guidance if uncertain about the application of this rule

FENCING AND DRIVEWAY PLAN - WEST

















GREENHILL PARK DESIGN GUIDELINES STAGES 16-20

DIAGRAM — 8

Fence type/location and driveway location plan



Key (refer following pages for fence designs)

- | | | | |
|---|---|---|-------------------------------------|
|  | Indicative Driveway Location |  | Type B 1.0m Fence |
|  | Comprehensive Development Lot (Bespoke Design Required) |  | Type C 1.8m Screen Fence |
|  | Indicative backyard extent |  | Type C 1.0m Fence |
|  | Type A 1.8m Screen Fence |  | Type D 1.8m Screen Fence |
|  | Type A 1.0m Fence |  | Type D 1.0m Fence |
|  | Type B 1.8m Screen Fence |  | 1.0m Bespoke Design (Optional) |
| | |  | Type E 1.8m Backyard Fence |
| | |  | Type F 1.8m Webb Drive Screen Fence |

NOTES

1. Alternative fence designs can be approved at the Design Review Panels (DRP) discretion.
 2. Interpretation of the fence layout against a proposed house design to be reviewed by the DRP prior to installation including proposed surface finish.
 3. All houses shown are indicative and meant to give an indication of fences relationship to house only.
 4. Screen fences shown are to be adapted to suit actual house design, screen fences along open spaces can be replaced by the same type of 1m fence if required and vice versa*.
 5. All gates to match adjoining fence design in height, materiality and design.
 6. All front yard fences to be set back from the adjoining building line (or neighbours whichever is set further back) by a minimum of 1m including the screen fence return. If the adjoining house has not been built then a minimum dimension of 6m from the street edge to be used*.
 7. Front door paths and lot side driveways have not been shown, neither have letterboxes.
 8. Driveway locations are indicative only and alternative locations will be considered by the DRP.
- * Seek DRP guidance if uncertain about the application of this rule

FENCING AND DRIVEWAY PLAN - SOUTHWEST



GREENHILL PARK DESIGN GUIDELINES STAGES 16-26

DIAGRAM — 10
Fence type/location and driveway location plan

Key (refer following pages for fence designs)

- | | | | |
|--|---|--|-------------------------------------|
| | Indicative Driveway Location | | Type B 1.0m Fence |
| | Comprehensive Development Lot (Bespoke Design Required) | | Type C 1.8m Screen Fence |
| | Indicative backyard extent | | Type C 1.0m Fence |
| | Type A 1.8m Screen Fence | | Type D 1.8m Screen Fence |
| | Type A 1.0m Fence | | Type D 1.0m Fence |
| | Type B 1.8m Screen Fence | | 1.0m Bespoke Design (Optional) |
| | | | Type E 1.8m Backyard Fence |
| | | | Type F 1.8m Webb Drive Screen Fence |

NOTES

1. Alternative fence designs can be approved at the Design Review Panels (DRP) discretion.
 2. Interpretation of the fence layout against a proposed house design to be reviewed by the DRP prior to installation including proposed surface finish.
 3. All houses shown are indicative and meant to give an indication of fences relationship to house only.
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 5. All gates to match adjoining fence design in height, materiality and design.
 6. All front yard fences to be set back from the adjoining building line (or neighbours whichever is set further back) by a minimum of 1m including the screen fence return. If the adjoining house has not been built then a minimum dimension of 6m from the street edge to be used*.
 7. Front door paths and lot side driveways have not been shown, neither have letterboxes.
 8. Driveway locations are indicative only and alternative locations will be considered by the DRP.
- * Seek DRP guidance if uncertain about the application of this rule



FENCING AND DRIVEWAY PLAN - NORTHEAST

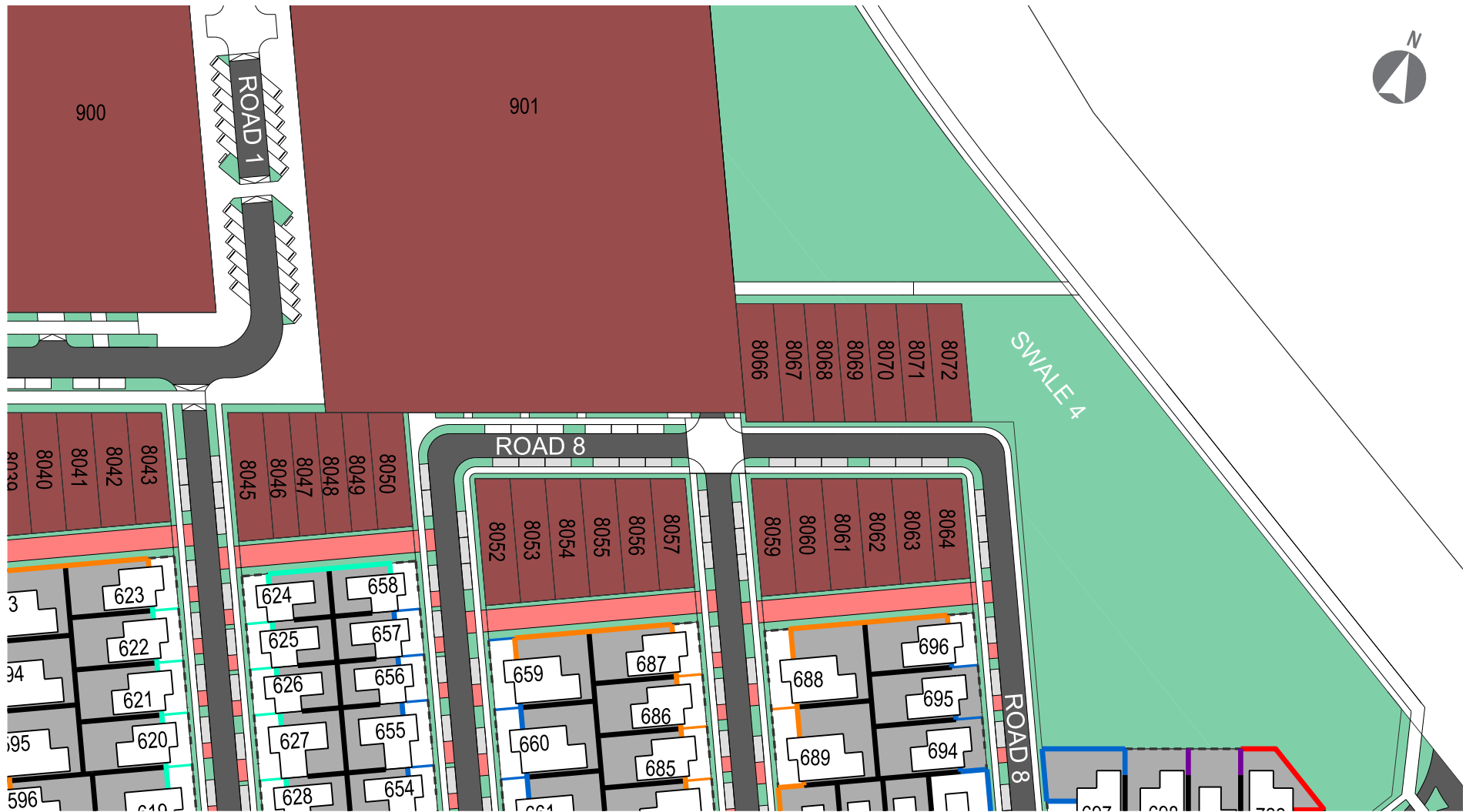


DIAGRAM — 11
Fence type/location and driveway location plan

Key (refer following pages for fence designs)

- Indicative Driveway Location
- Comprehensive Development Lot (Bespoke Design Required)
- Indicative backyard extent
- Type A 1.8m Screen Fence
- Type A 1.0m Fence
- Type B 1.8m Screen Fence
- Type B 1.0m Fence
- Type C 1.8m Screen Fence
- Type C 1.0m Fence
- Type D 1.8m Screen Fence
- Type D 1.0m Fence
- 1.0m Bespoke Design (Optional)
- Type E 1.8m Backyard Fence
- Type F 1.8m Webb Drive Screen Fence

NOTES

1. Alternative fence designs can be approved at the Design Review Panels (DRP) discretion.
 2. Interpretation of the fence layout against a proposed house design to be reviewed by the DRP prior to installation including proposed surface finish.
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 5. All gates to match adjoining fence design in height, materiality and design.
 6. All front yard fences to be set back from the adjoining building line (or neighbours whichever is set further back) by a minimum of 1m including the screen fence return. If the adjoining house has not been built then a minimum dimension of 6m from the street edge to be used*.
 7. Front door paths and lot side driveways have not been shown, neither have letterboxes.
 8. Driveway locations are indicative only and alternative locations will be considered by the DRP.
- * Seek DRP guidance if uncertain about the application of this rule

FENCING AND DRIVEWAY PLAN - EAST

DIAGRAM — 12
Fence type/location and
driveway location plan



Key (refer following pages for fence designs)

- | | | | |
|--|---|--|-------------------------------------|
| | Indicative Driveway Location | | Type B 1.0m Fence |
| | Comprehensive Development Lot (Bespoke Design Required) | | Type C 1.8m Screen Fence |
| | Indicative backyard extent | | Type C 1.0m Fence |
| | Type A 1.8m Screen Fence | | Type D 1.8m Screen Fence |
| | Type A 1.0m Fence | | Type D 1.0m Fence |
| | Type B 1.8m Screen Fence | | 1.0m Bespoke Design (Optional) |
| | | | Type E 1.8m Backyard Fence |
| | | | Type F 1.8m Webb Drive Screen Fence |

NOTES

1. Alternative fence designs can be approved at the Design Review Panels (DRP) discretion.
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3. All houses shown are indicative and meant to give an indication of fences relationship to house only.
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6. All front yard fences to be set back from the adjoining building line (or neighbours whichever is set further back) by a minimum of 1m including the screen fence return. If the adjoining house has not been built then a minimum dimension of 6m from the street edge to be used*.
7. Front door paths and lot side driveways have not been shown, neither have letterboxes.
8. Driveway locations are indicative only and alternative locations will be considered by the DRP.
* Seek DRP guidance if uncertain about the application of this rule















FENCING AND DRIVEWAY PLAN - SOUTHEAST



DIAGRAM — 13

Fence type/location and driveway location plan

Key (refer following pages for fence designs)

- | | | | |
|---|---|---|-------------------------------------|
|  | Indicative Driveway Location |  | Type B 1.0m Fence |
|  | Comprehensive Development Lot (Bespoke Design Required) |  | Type C 1.8m Screen Fence |
|  | Indicative backyard extent |  | Type C 1.0m Fence |
|  | Type A 1.8m Screen Fence |  | Type D 1.8m Screen Fence |
|  | Type A 1.0m Fence |  | Type D 1.0m Fence |
|  | Type B 1.8m Screen Fence |  | 1.0m Bespoke Design (Optional) |
| | |  | Type E 1.8m Backyard Fence |
| | |  | Type F 1.8m Webb Drive Screen Fence |

NOTES

1. Alternative fence designs can be approved at the Design Review Panels (DRP) discretion.
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 5. All gates to match adjoining fence design in height, materiality and design.
 6. All front yard fences to be set back from the adjoining building line (or neighbours whichever is set further back) by a minimum of 1m including the screen fence return. If the adjoining house has not been built then a minimum dimension of 6m from the street edge to be used*.
 7. Front door paths and lot side driveways have not been shown, neither have letterboxes.
 8. Driveway locations are indicative only and alternative locations will be considered by the DRP.
- * Seek DRP guidance if uncertain about the application of this rule

FENCING AND DRIVEWAY PLAN - SOUTH

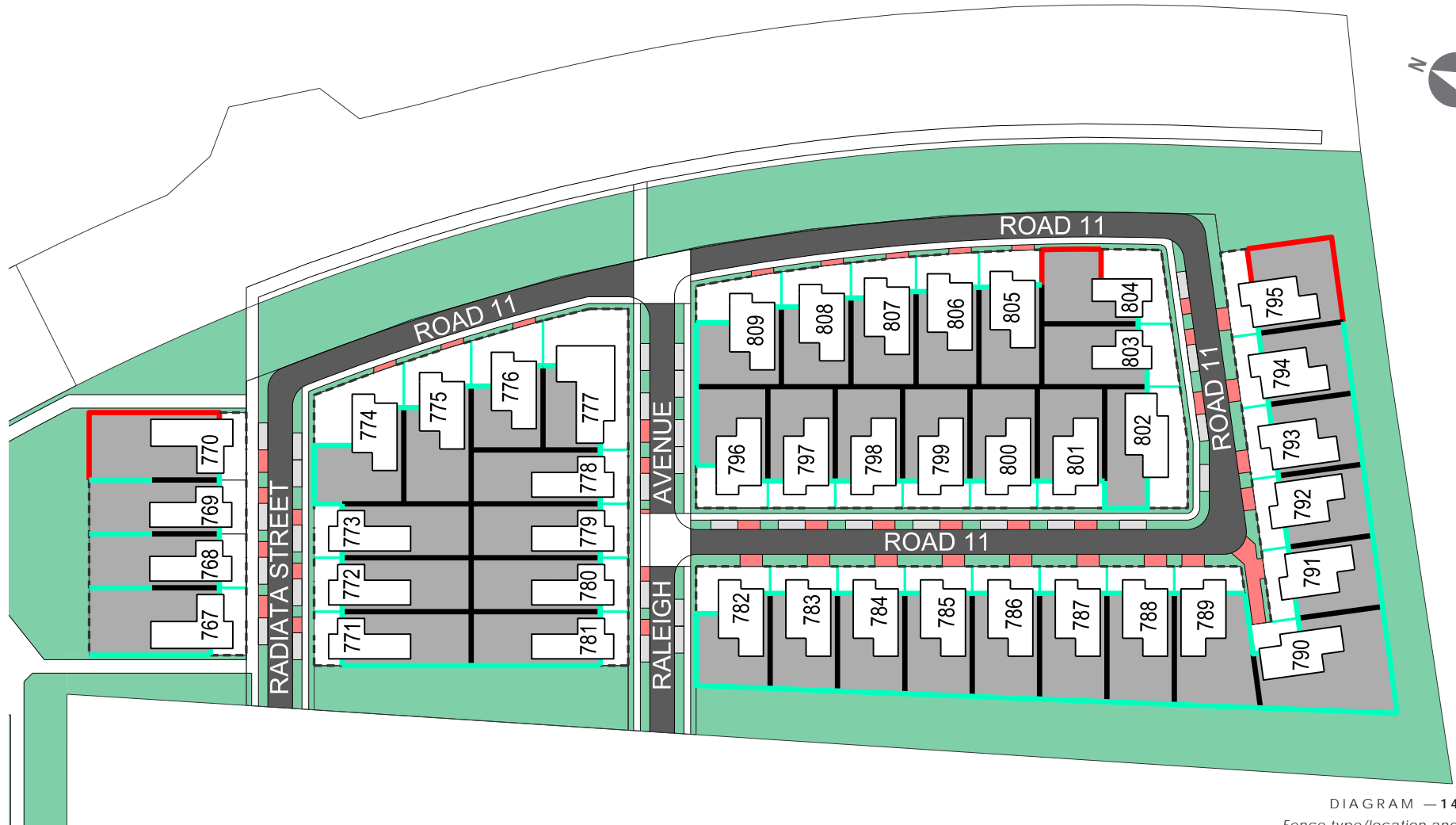
















DIAGRAM — 14
Fence type/location and
driveway location plan

Key (refer following pages for fence designs)

- | | | | |
|---|---|---|-------------------------------------|
|  | Indicative Driveway Location |  | Type B 1.0m Fence |
|  | Comprehensive Development Lot (Bespoke Design Required) |  | Type C 1.8m Screen Fence |
|  | Indicative backyard extent |  | Type C 1.0m Fence |
|  | Type A 1.8m Screen Fence |  | Type D 1.8m Screen Fence |
|  | Type A 1.0m Fence |  | Type D 1.0m Fence |
|  | Type B 1.8m Screen Fence |  | 1.0m Bespoke Design (Optional) |
| | |  | Type E 1.8m Backyard Fence |
| | |  | Type F 1.8m Webb Drive Screen Fence |

NOTES

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2. Interpretation of the fence layout against a proposed house design to be reviewed by the DRP prior to installation including proposed surface finish.
3. All houses shown are indicative and meant to give an indication of fences relationship to house only.
4. Screen fences shown are to be adapted to suit actual house design, screen fences along open spaces can be replaced by the same type of 1m fence if required and vice versa*.
5. All gates to match adjoining fence design in height, materiality and design.
6. All front yard fences to be set back from the adjoining building line (or neighbours whichever is set further back) by a minimum of 1m including the screen fence return. If the adjoining house has not been built then a minimum dimension of 6m from the street edge to be used*.
7. Front door paths and lot side driveways have not been shown, neither have letterboxes.
8. Driveway locations are indicative only and alternative locations will be considered by the DRP.
* Seek DRP guidance if uncertain about the application of this rule

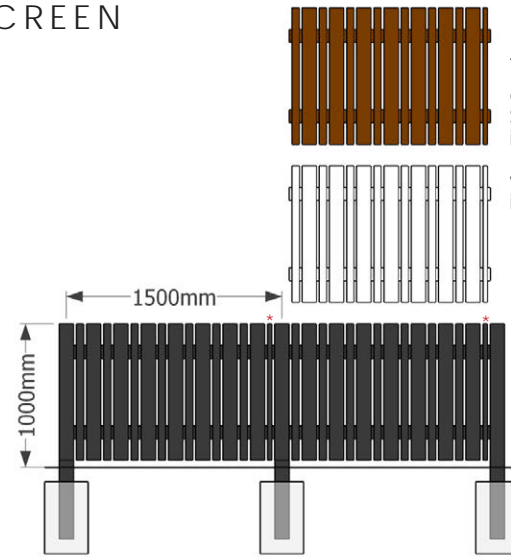
FENCING - FRONT YARD AND SCREEN FENCE TYPES A+B

Each lot in stages 16 - 26 has been allocated a minimum acceptable fencing design as illustrated on this and the following pages and located on the previous pages. Variations of these designs can be approved at the DRP's discretion. Front yard 1.0m side boundary fences are compulsory. **Front yard 1.0m street edge fences are optional and are encouraged to be bespoke designs and reflect the design of the home using similar materials, forms and colours. Similarly reserve edge fences are encouraged to be bespoke designs.** Either a black paint, white paint or dark stain finish must be used on all fences and it is encouraged to consider which colour would compliment the house design and colour scheme best. Colour selection is to be approved by the DRP. No "natural finish" timber will be accepted nor will rough sawn timber which is visible from the street. Both sides of all fences to be painted / stained at the time the fence is built

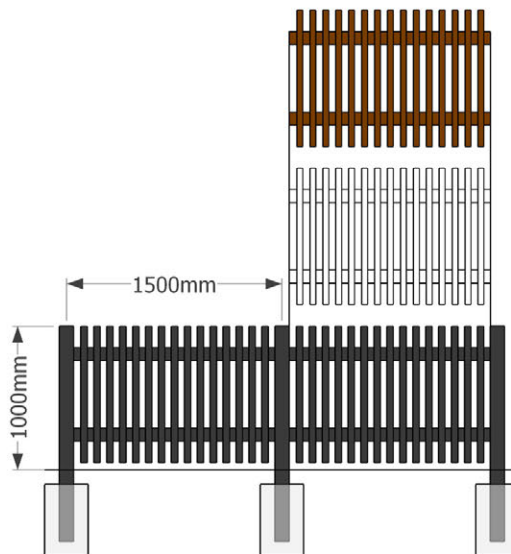
Note: All gate posts on 1.8m type A or B screen fence returns to be 112.5 x 112.5mm H5 glue laminate timber to prevent twisting.

100x100mm H4 posts at max 1500mm centres. 90x45mm H3.2 dressed rails with 45 x 40mm H3.2 dressed battens. Battens to be flush with front of posts. 45mm gap between battens. Sections to step at post location instead of rake if level change is required. Max 100mm gap from base of fence to ground.

DIAGRAM — 15
Fence types A and B

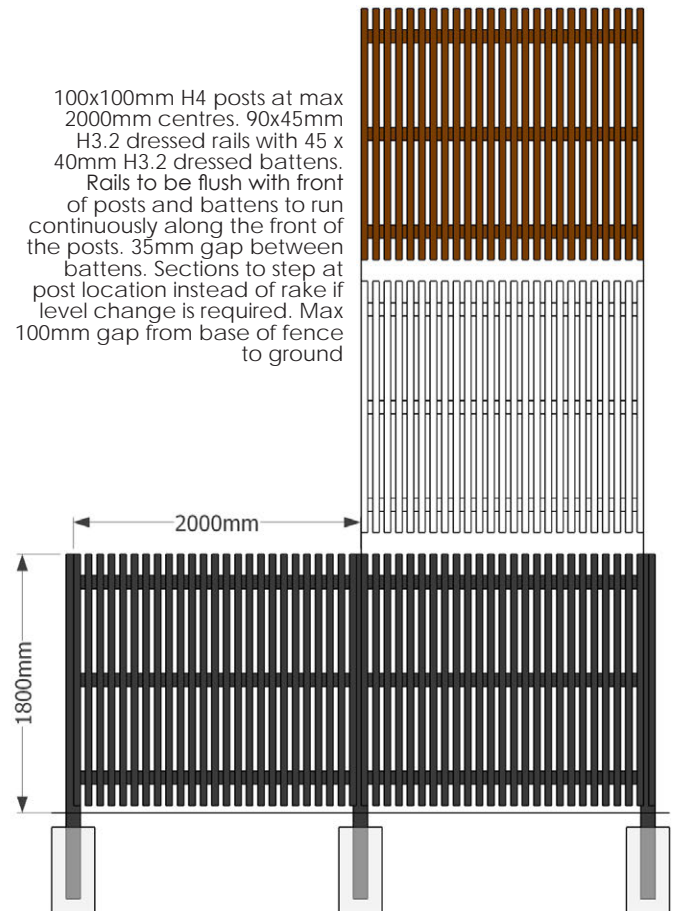


1.0m FRONT YARD FENCE TYPE A



1.0m FRONT YARD FENCE TYPE B

100x100mm H4 posts at max 1500mm centres. Alternating vertical 95 x 19mm and 45 x 19mm H3.2 dressed pailings. Pailings to be sit proud of front of posts. 25mm gap between pailings. Sections to step at post location instead of rake if level change is required. Max 100mm gap from base of fence to ground. *Adjust final pailing width next to post to ensure a 95mm wide section is located centre to centre with the post.



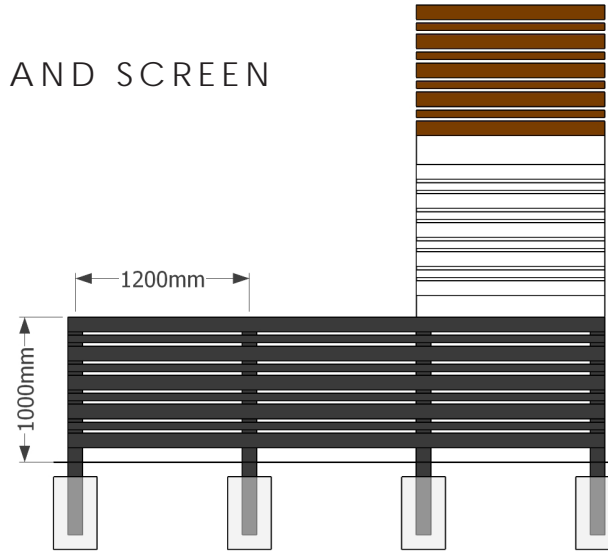
100x100mm H4 posts at max 2000mm centres. 90x45mm H3.2 dressed rails with 45 x 40mm H3.2 dressed battens. Rails to be flush with front of posts and battens to run continuously along the front of the posts. 35mm gap between battens. Sections to step at post location instead of rake if level change is required. Max 100mm gap from base of fence to ground

1.8m SCREEN FENCE TYPE A + B

DIAGRAM — 8

FENCING - FRONT YARD AND SCREEN FENCE TYPES C+D

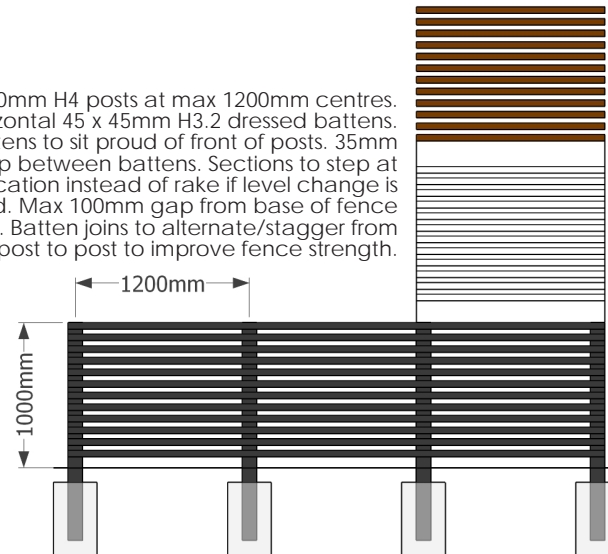
Note: All gate posts on 1.8m type C or D screen fence returns to be 112.5 x 112.5mm H5 glue laminate timber to prevent twisting.



1.0m FRONT YARD FENCE TYPE C

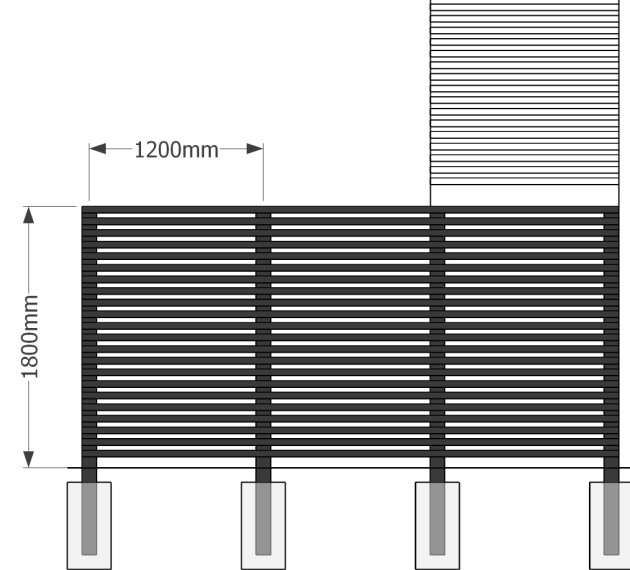
100x100mm H4 posts at max 1200mm centres. Alternating horizontal 95 x 19mm and 45 x 19mm H3.2 dressed pailings. Pailings to be sit proud of front of posts. 25mm gap between pailings. Sections to step at post location instead of rake if level change is required. Max 100mm gap from base of fence to ground. Pailing joins to alternate/stagger from post to post to improve fence strength.

100x100mm H4 posts at max 1200mm centres. Horizontal 45 x 45mm H3.2 dressed battens. Battens to sit proud of front of posts. 35mm gap between battens. Sections to step at post location instead of rake if level change is required. Max 100mm gap from base of fence to ground. Batten joins to alternate/stagger from post to post to improve fence strength.



1.0m FRONT YARD FENCE TYPE D

100x100mm H4 posts at max 1200mm centres. Horizontal 45 x 45mm H3.2 dressed battens. Battens to sit proud of front of posts. 35mm gap between battens. Sections to step at post location instead of rake if level change is required. Max 100mm gap from base of fence to ground. Batten joins to alternate/stagger from post to post to improve fence strength.



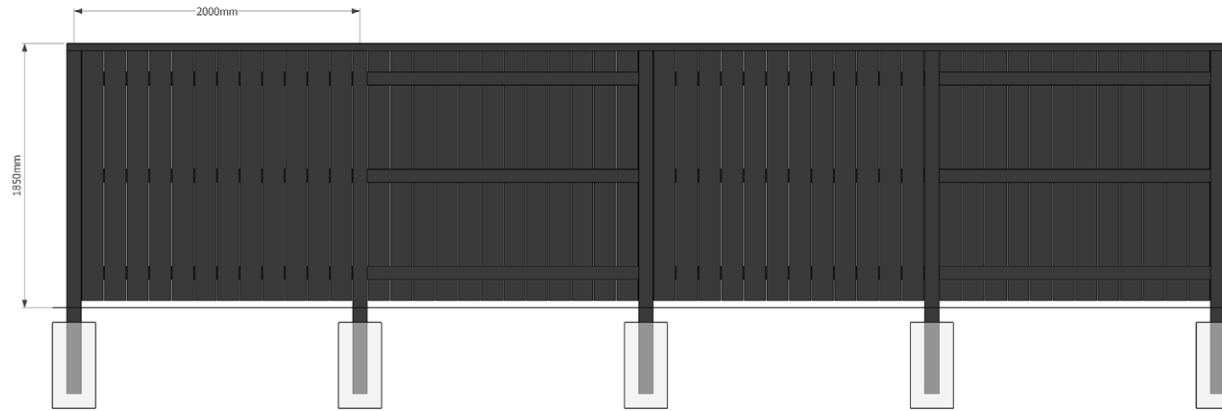
1.8m SCREEN FENCE TYPE C + D

DIAGRAM — 16
Fence types C
and D

DIAGRAM — 9

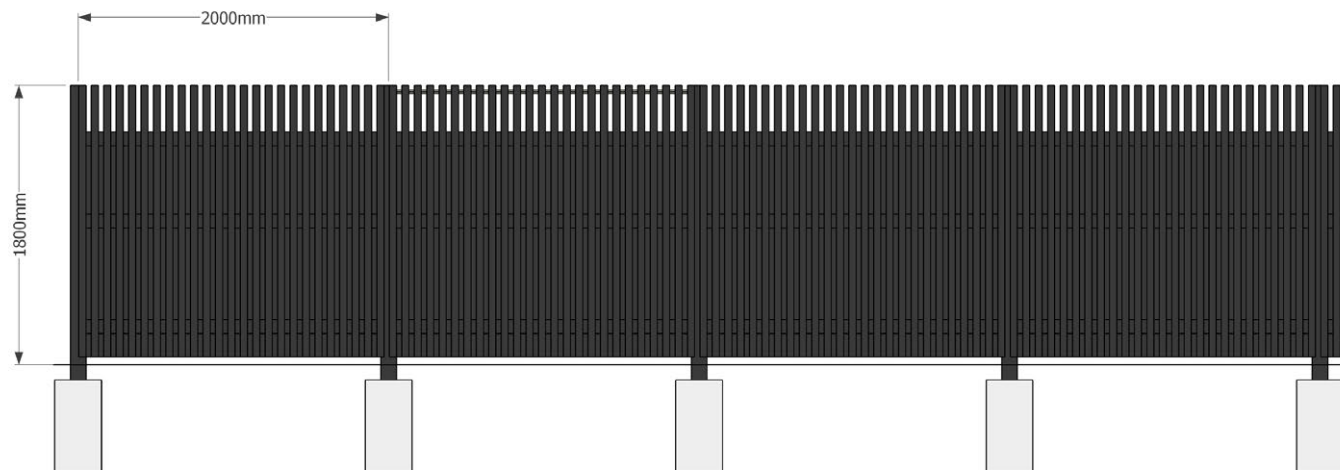
FENCING - BACKYARD FENCE AND WEBB DRIVE SCREEN FENCE

TYPE E - 1.85m BACKYARD FENCE



100x100mm H4 posts at max 2000mm centres. 100x50mm H3.2 rough sawn rails with 150 x 25mm H3.2 rough sawn pailings. 100 x 50mm H3.2 rough sawn cap. Pailings to be flush with front of posts and to swap sides at each post. 5-10mm gap between pailings. Sections to step at post location instead of rake if level change is required. Max 100mm gap from base of fence to ground. Fence to be painted black.

TYPE F - 1.8m WEBB DRIVE SCREEN FENCE



The screen fencing along Webb Drive is designed to be visually appealing from the street while still providing noise attenuation within the back yards of adjoining properties. The fence is to be built lot by lot and allowance for the fence to continue at either end is required. No Plywood backing is required when the fence is side on to Webb Drive against an open space link.

100x100mm H4 posts at max 2000mm centres. 90x45mm H3.2 dressed rails with 45 x 40mm H3.2 dressed batters. Rails to be flush with front of posts and batters to run continuously along the front of the posts. 35mm gap between batters. 19mm H3.2 plywood to be fixed to lot side of fence to a maximum height of 1.5m above ground. Plywood to be painted black on both sides prior to installation. Sections to step at post location instead of rake if level change is required. Max 100mm gap from base of fence to ground.

DIAGRAM — 17
Fence types E and F

'Look And Feel' Examples For The Front Yard Landscape Design

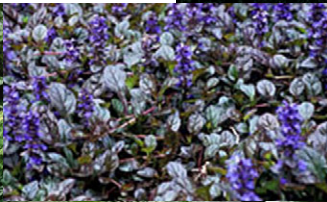
Bernardes Arquitetura



Ajuga reptans 'Catlin's Giant'



Eckersley Garden Architecture



Eckersley Garden Architecture



Rhopalostylis chathamica

PLANTING GUIDELINES

FRONT YARD PLANTING DESIGN

Planting shall be undertaken in the front yard of each lot and **include the area within the road reserve between your boundary and the back of the footpath or kerbline if there is no footpath**. The design for each front yard shall be implemented and maintained by the lot owner at the time of construction of the house and completed prior to the occupation of the house.

Specimen tree and plant species for the front yard planting design are to be selected from the Greenhill Park Plant List.

* Other plant species can be approved at the discretion of the Design Review Panel.

Planting should be selected for optimum growing conditions and not require an unnecessary amount of maintenance to get it established or for it to thrive in the long term. Planting should define front boundaries, reinforce entrances, frame views from the house onto the street, provide privacy and separation between each lot and allow solar access to windows and living areas.

Due to the compact size of each lot, plants should be set-out in layers of height to maximise the perceived depth of the planted borders. All plants should be arranged so that they touch when they reach their mature size.

Plants should be set-out with layers of height in mind. Tall species should typically be arranged at the back against walls and fence lines graduating to smaller species in the front of the border. In very narrow borders where there is little room to layer, layer heights from side to side instead.

All front yard planting, other than specimen trees, must be 1.2m maximum in overall height at maturity or maintained as a 1.2m high hedge to maintain outlook to the street.

Spread organic mulch thickly to a depth of at least 75mm around the plants following planting to provide good weed suppression and keep the soil as moist as possible.

All work undertaken should be of a very high quality and appearance. All set-out should be set square and aligned perpendicular to the house.

SPECIMEN TREES

Each front yard shall have at least one tree planted as part of the overall design and implementation of the front yard plans. The tree is to be a minimum grade of Pb 150 and 2+ metres high at the time of planting. When planting a tree, consideration should be given to the mature size of the tree, and to the use of root barriers when planting in close proximity to houses, hardscapes or services. Trees should be positioned between side boundaries and as close as possible to the front boundary. Trees should not be planted in a hedge.

CORNER LOTS

The front yard treatment should continue around the corner for at least one third of the total side elevation. There should be at least one tree planted on each outward facing yard on corner lots.

BACK YARD

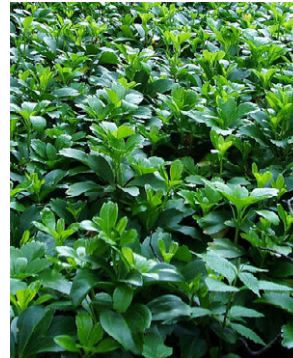
It is encouraged that fruit trees are planted in each back yard.

'Look And Feel' Examples For The Front Yard Landscape Design



Matthew Cunningham Landscape Design LLC

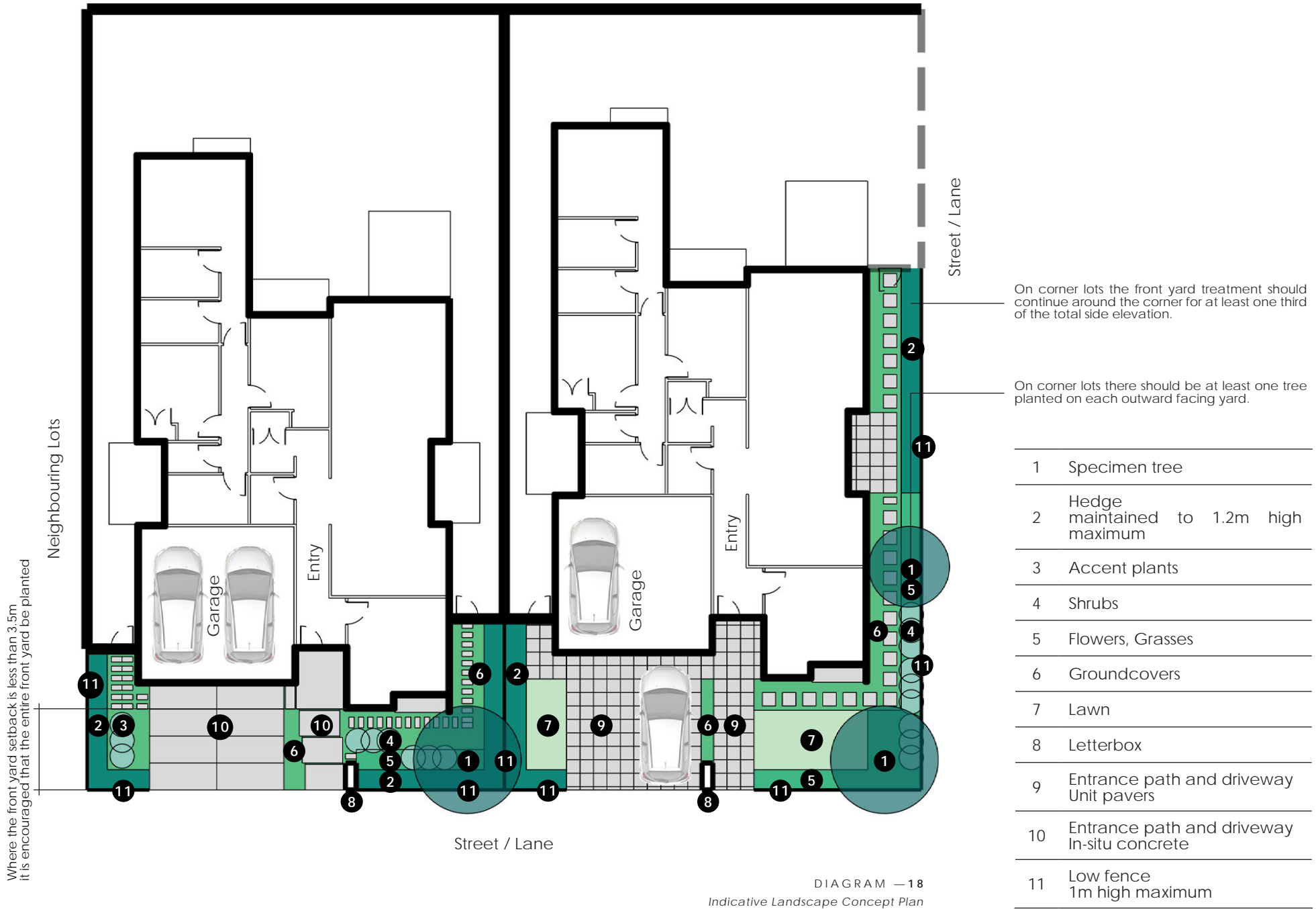
Pachysandra terminalis



Christian Fournet



Ophiopogon planiscapus 'Black Dragon'



ENTRANCE PATHS AND DRIVEWAYS

Entrance paths and driveways should be high quality hard surface materials. Entrance paths should be constructed to directly link the entry of the house to the street, with no interference from parked vehicles.

Materials that are permitted are —

- In-situ exposed aggregate concrete construction with 8% black oxide using Bowers concrete. A broomed concrete finish is not permitted. Control joints for driveways should be at 3m centres maximum. The width of the entrance path will determine the centres for control joints along the path e.g. if the path is 1.5m wide, the control joints could be at 1.5m centres to create a square grid or 3m centres to create a rectangular grid (the maximum length to width ratio should be 2:1).
- Unit pavers
- Stone

* Other materials can be approved at the discretion of the Design Review Panel.

EXTERIOR LIGHTING

Exterior lighting should be carefully designed with regard to placement, intensity, timing, duration and colour. All light fittings should be integrated into the architecture or landscape. Louvres, hoods and other attachments designed to direct light and minimise light pollution are required for any exterior lighting.

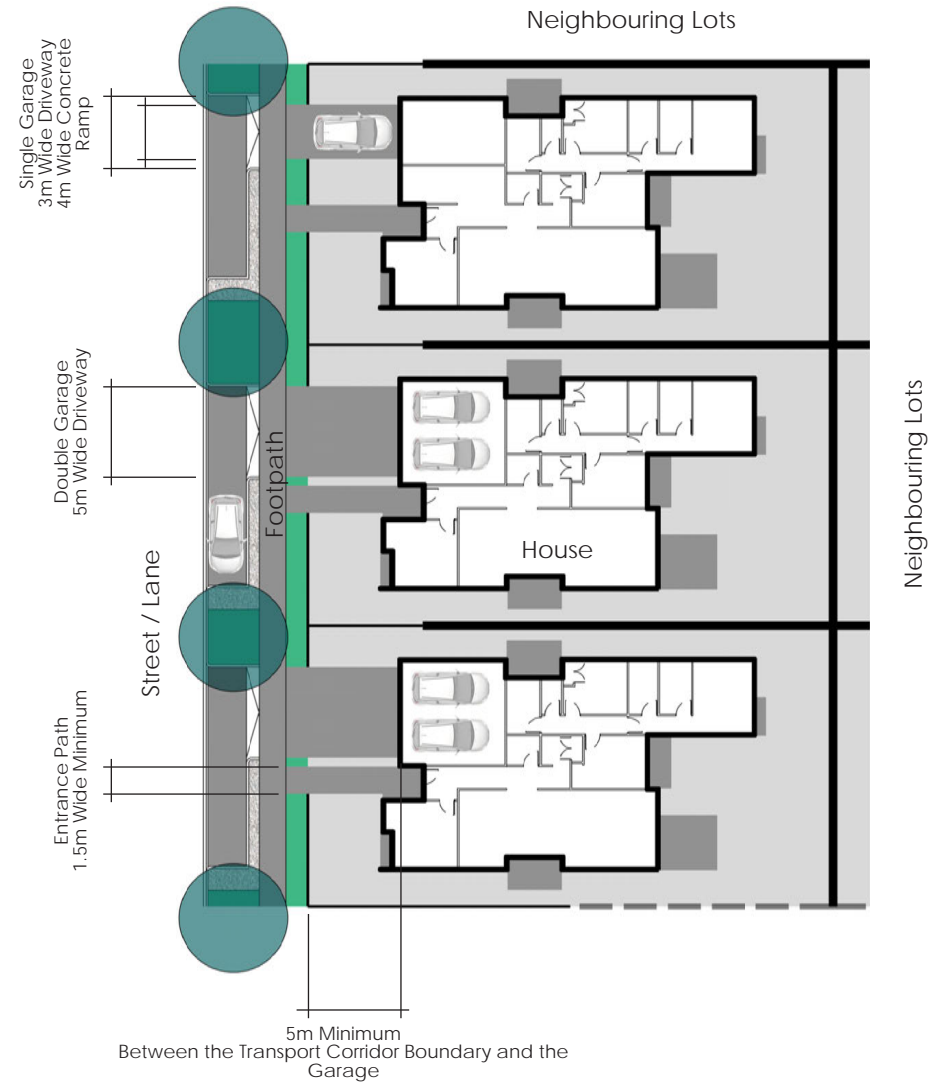


DIAGRAM — 19
Entrance Paths And Driveways

'Look And Feel' Examples For Entrance Paths And Driveways

Irregular stone flagstones

Stefan Morael Tuin Architect, Brussel

Scott Lewis Vineyard Retreat

In-situ concrete with an exposed aggregate finish



Stone tiles

In-situ concrete with a coloured oxide added, and an acid washed finish



Houston Landscapes



F. H. Pavés Wares - Holland, Spain

Matthew Williams for Gardenista



Unit pavers



In-situ concrete with an acid washed finish











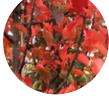



Inarc

Horst Architects

GREENHILL PARK PLANT LIST

SPECIMEN TREES

| | Botanical Name | Common Name | Evergreen | Deciduous | Sun | Partial Shade | Shade |
|---|---|-----------------------------------|-----------|-----------|-----|---------------|-------|
|  |  | Acer palmatum | | • | • | • | |
| | Acer palmatum 'Bloodgood' | japanese maple | | • | • | • | |
|  |  | Cercidiphyllum japonicum | | • | • | • | |
| | Cercis canadensis 'Forest Pansy' | redbud | | • | • | • | |
|  |  | Cornus contraversa | | • | • | • | |
| | Cornus florida 'Cloud 9' | dogwood | | • | • | • | |
|  |  | Magnolia grandiflora 'Little Gem' | • | | • | • | |
| | Magnolia 'Cleopatra' | magnolia | | • | • | • | |
|  |  | Magnolia 'Star Wars' | | • | • | • | |
| | Magnolia 'Yellow Bird' | magnolia | | • | • | • | |
|  |  | Pyrus calleryana 'Candelabra' | | • | • | • | |
| | Styrax japonicus | japanese snowbell | | • | • | • | |

All front yard trees to be a minimum grade of Pb 150 and 2+ metres high at the time of planting.

BACK YARD FRUIT TREE



Such as — Apple, Citrus (lemon, mandarin, grapefruit), Crabapple, Feijoa, Nectarine, Peach, Pear, Plum. Ensure you select a cold-hardy variety.

HEDGES



| Botanical Name | Common Name | Evergreen | Deciduous | Sun | Partial Shade | Shade |
|-----------------------------------|--------------------|-----------|-----------|-----|---------------|-------|
| Camellia sasanqua 'Setsugekka' | camellia | • | | • | • | • |
| Corokia 'Geenty's Green' | korokio | • | | • | | |
| Corokia 'Bronze King' | korokio | • | | • | • | |
| Griselinia littoralis | broadleaf | • | | • | | |
| Michelia figo | port wine magnolia | • | | • | • | |
| Laurus nobilis | bay tree | • | | • | • | |
| Lonicera nitida | box honeysuckle | • | | • | • | |
| Prunus laurocerasus | cherry laurel | | | • | • | |
| Teucrium fruticans | tree germander | • | | • | | |
| Viburnum tinus 'Eve Price' | laurustinus | • | | • | • | • |

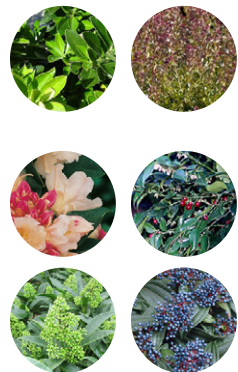
All hedges should be a minimum grade of Pb 12 at the time of planting, a single species and maintained as a maximum 1.2m high hedge to maintain outlook from the house to the street.

ACCENT PLANTS



| Botanical Name | Common Name | Evergreen | Deciduous | Sun | Partial Shade | Shade |
|----------------------------------|------------------------------------|-----------|-----------|-----|---------------|-------|
| Buxus species | box | • | | | • | • |
| Cotinus coggygria 'Royal Purple' | purple smoke bush | | • | • | • | |
| Hydrangea paniculata 'Levana' | panicle hydrangea | | • | • | • | |
| Hydrangea paniculata 'Tardiva' | panicle hydrangea | | • | • | • | |
| Malus 'Ballerina Waltz' PVR | waimea nurseries columnar apple | | • | • | | |
| Pseudopanax crassifolius | lancewood | • | | • | • | |
| Rhopalostylis chathamica | pitt island / chatham island nikau | • | | • | • | |
| Syringa 'Alice Eastwood' | lilac | | • | • | • | |
| Viburnum opulus 'Sterile' | snowball tree | | • | • | • | • |

SHRUBS



| Botanical Name | Common Name | Evergreen | Deciduous | Sun | Partial Shade | Shade |
|--|-------------------|-----------|-----------|-----|---------------|-------|
| Euonymus 'Emerald Gem' | dwarf euonymus | • | | • | • | • |
| Lonicera nitida 'Honey Hedge Ruby' | box honeysuckle | • | | • | • | |
| Rhododendron species — to 1.2m high maximum | rhododendron | • | | | • | |
| Sarcococca ruscifolia var. chinensis | chinese box | • | | | • | • |
| Skimmia 'Kew Green' | skimmia kew green | • | | | • | • |
| Viburnum davidii | david viburnum | • | | • | • | • |

All shrub plants to be a minimum grade of Pb 8 at the time of planting.

FLOWERS



| Botanical Name | Common Name | Evergreen | Deciduous | Sun | Partial Shade | Shade |
|-----------------------------------|--------------------------|-----------|-----------|-----|---------------|-------|
| Alstroemeria species | peruvian lily | | • | • | • | |
| Anemone x hybrida | japanese anemone | • | | • | • | |
| Dietes iridioides | wild iris | • | | • | • | |
| Helleborus species | winter rose | • | | • | • | |
| Iris germanica | bearded iris and hybrids | | • | • | | |
| Liriope muscari 'Evergreen Giant' | lily turf | • | | • | • | • |
| Liriope muscari 'Monroe White' | lily turf | • | | | • | • |
| Liriope muscari 'Samantha' | lily turf | • | | • | • | |
| Rosmarinus officinalis | rosemary | • | | • | | |

All flowering plants to be a minimum grade of Pb 5 at the time of planting.

GRASSES



| Botanical Name | Common Name | Evergreen | Deciduous | Sun | Partial Shade | Shade |
|----------------|----------------------------|-----------|-----------|-----|---------------|-------|
| Carex dipsacea | teasel sedge | • | | • | • | |
| Carex testacea | orange sedge | • | | • | | |
| Poa cita | new zealand silver tussock | • | | • | | |

All grasses to be a minimum grade of Pb 5 at the time of planting.

GROUNDCOVERS



| Botanical Name | Common Name | Evergreen | Deciduous | Sun | Partial Shade | Shade |
|--|-----------------|-----------|-----------|-----|---------------|-------|
| <i>Acaena inermis</i> 'Purpurea' | purple bidibid | • | | • | | |
| <i>Ajuga reptans</i> 'Catlin's Giant' | blue bugle | • | | | • | |
| <i>Dianella nigra</i> | turutu | • | | • | • | |
| <i>Farfugium japonicum</i> var. <i>giganteum</i> | tractor seat | • | | | • | • |
| <i>Leptinella squalida</i> 'Platt's Black' | brass buttons | • | | • | | |
| <i>Liriope spicata</i> | lily turf | • | | • | • | |
| <i>Ophiopogon planiscapus</i> | mondo grass | • | | • | • | |
| <i>Ophiopogon planiscapus</i> 'Black Dragon' | mondo grass | • | | • | • | • |
| <i>Pachysandra terminalis</i> | japanese spurge | • | | | • | • |
| <i>Thymus serpyllum</i> 'Coccineus' | creeping thyme | • | | • | | |
| <i>Trachelospermum jasminoides</i> | star jasmine | • | | • | • | |

All groundcover plants to be a minimum grade of Pb 5 at the time of planting.

ON-LOT WATER EFFICIENCY MEASURES

WATER SUPPLY AND WASTEWATER DISPOSAL

The efficiency of taps, showers and toilets contribute to how much water we use. A reduction in the use of potable water by each house directly relates to the amount of wastewater generated (i.e. reduced water use results in reduced wastewater generation). To reduce potable water demand and the amount of wastewater generated, as a minimum, each house is required to install low demand fittings for kitchen, bathroom and laundry facilities.

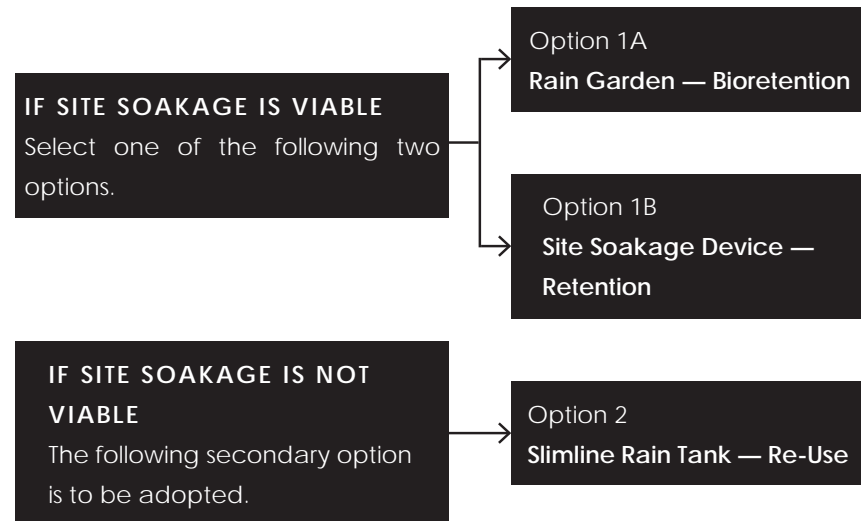
All household fittings are required to have a minimum 3 Star Rating.

STORMWATER DISPOSAL

Each lot is required to adopt an on-lot stormwater efficiency measure to ensure that surface water runoff is appropriately managed.

First, the suitability of the site for soakage needs to be assessed. Soakage is the process of helping stormwater soak into the ground using specially designed soakage devices. Soakage allows for the infiltration of stormwater into the soil which recharges the groundwater table below.

A site infiltration test is mandatory for all lots to confirm the in-situ soils are



capable of achieving the minimum percolation rates. Refer to Hamilton City Council 'Three Waters Practice Note HCC 03: Soakage' for guidance on soil testing.

* Other alternative stormwater efficiency options will also be considered subject to approval by Greenhill Park and Hamilton City Council.

The selected option is to be designed by a suitably qualified Engineer and approved by the Hamilton City Council Building Control Unit. Refer to page 33 to 36 of these guidelines for further information of the design requirements for Options 1A, 1B & 2.

Hamilton City Council also encourages the installation of multiple stormwater efficiency options within a property, where practical.

Option 1A

RAIN GARDEN — BIORETENTION

Design to provide minimum 'live storage' retention for runoff from a 10mm rainfall event for trafficked hard-stand areas.

The following table outlines indicative storage volumes and estimated rain garden areas for a range of lot sizes.

| Lot Area (m ²) | Live Storage Volume (m ³) | Rain Garden Area (m ²) |
|----------------------------|---------------------------------------|------------------------------------|
| 300 | 0.8 | 4.1 |
| 350 | 0.9 | 4.7 |
| 400 | 1.1 | 5.4 |
| 450 | 1.2 | 6.1 |
| 500 | 1.4 | 6.8 |
| 550 | 1.5 | 7.4 |

Based on hard-stand coverage equal to 30% of total lot area

KEY REQUIREMENTS

- Rain garden to be located to capture runoff from main hard-stand areas within the lot (as much as practical).
- Maximum live storage depth to be 300mm (safety requirements to be considered when device is at maximum storage capacity).
- A channel and grate to be installed across vehicle entrance to capture hard-stand run off and direct it to rain garden.

- Rain garden to be integrated with garden design (refer to page 34 for details).
- Overflow to be connected to stormwater connection provided.

FOR MORE INFORMATION

Refer to Hamilton City Council 'Three Waters Practice Note — HCC04 — Bio-retention (Rain Gardens)' for information on typical design requirements.

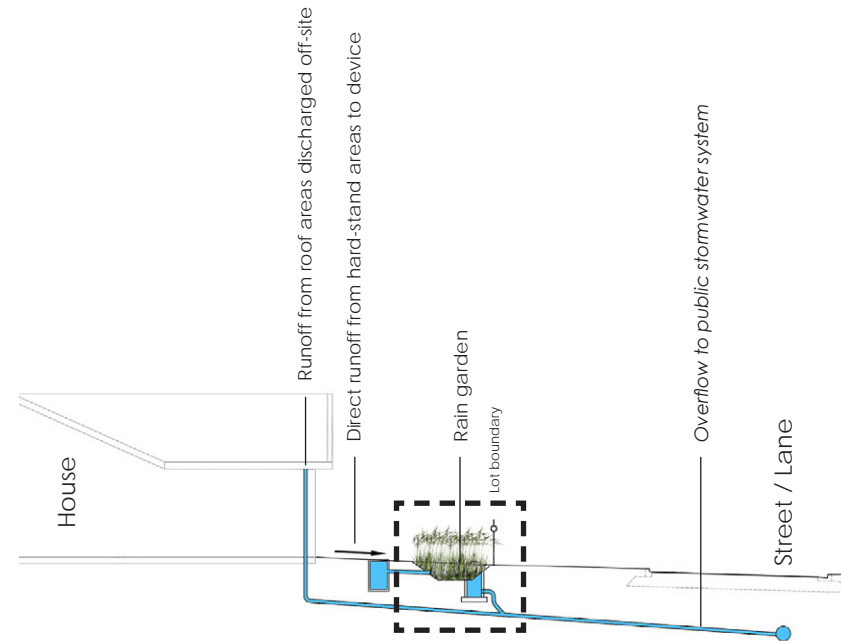


DIAGRAM — 20
Rain Garden — Bioretention

GREENHILL PARK RAIN GARDEN PLANT LIST

Native plants are encouraged, but other exotic plant species which complement your front yard planting design could be used. Deciduous plants should not be used as their leaf-fall can block the outflow.

The plants selected need to —

- Be able to tolerate short periods of inundation and longer dry periods
- Be perennial rather than annual
- Have deep fibrous root systems and a spreading growth form
- Form a dense, weed-suppressing cover



| Botanical Name | Common Name |
|-----------------------|------------------|
| Apodasmia similis | oioi |
| Blechnum penna-marina | alpine hard fern |
| Libertia ixioides | mikoikoi |
| Carex dipsacea | teasel sedge |
| Carex secta | purei |
| Carex virgata | pukio |
| Dianella nigra | turutu |
| Libertia grandiflora | mikoikoi |
| Lobelia angulata | panakenake |
| Pimelea prostrata | pinatoro |

All rain garden plants to be a minimum grade of Pb 8 at the time of planting. * Other plant species can be approved at the discretion of the Design Review Panel.

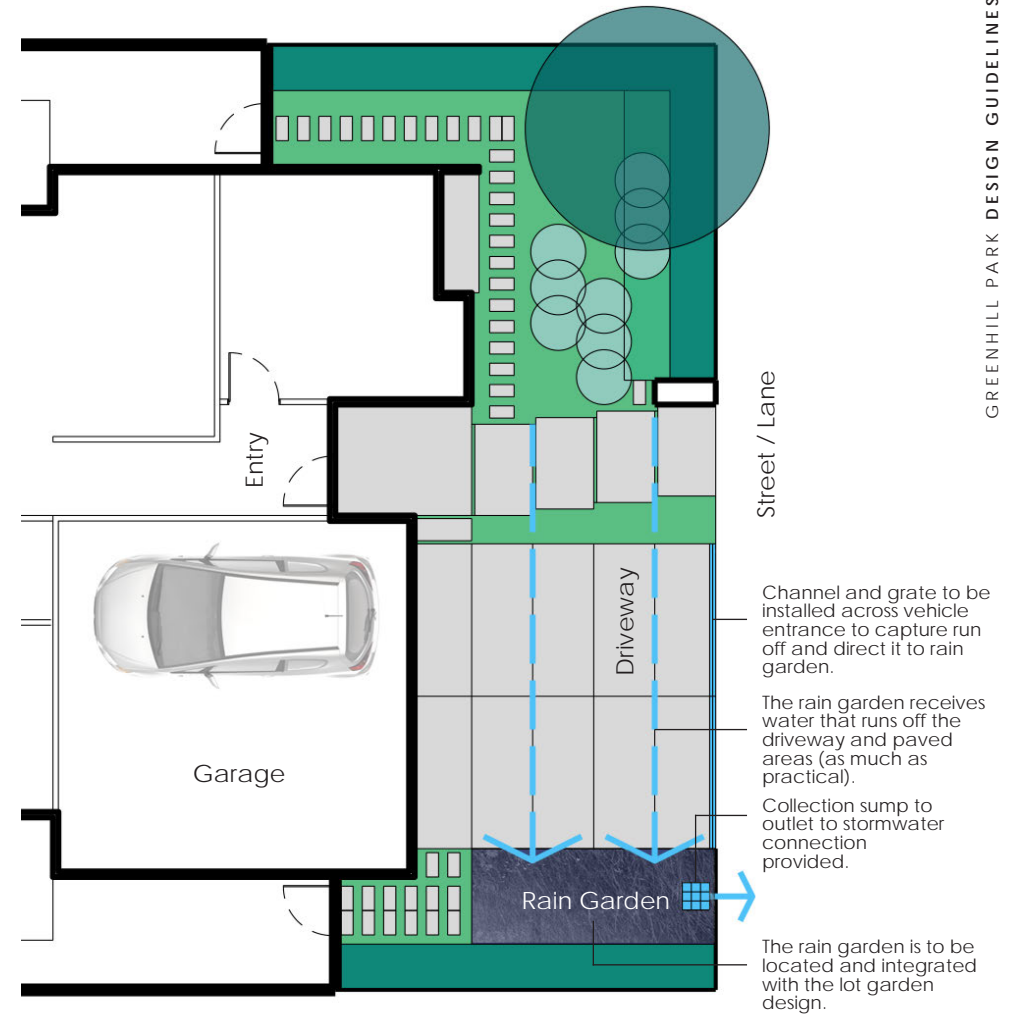


DIAGRAM — 21
Rain Garden Typical Location

Option 1B SITE SOAKAGE DEVICE — RETENTION

Design to provide minimum 'live storage' retention for runoff from a 10mm rainfall event for roof and trafficked hard-stand areas.

The following table outlines indicative storage volumes for a range of lot sizes.

| Lot Area (m ²) | Live Storage Volume (m ³) |
|----------------------------|---------------------------------------|
| 300 | 2.2 |
| 350 | 2.6 |
| 400 | 3.0 |
| 450 | 3.4 |
| 500 | 3.7 |
| 550 | 4.1 |

Based on 80% site coverage (roof and hard-stand areas)

KEY REQUIREMENTS

- Soakage device(s) to be located to capture runoff from roof downpipes and hard-stand areas (as much as practical).
- A channel and grate to be installed across vehicle entrance to capture hard-stand run off and direct it to soakage device.
- Soakage device to be integrated with garden design.
- Overflow to be connected to stormwater connection provided.

FOR MORE INFORMATION

Refer to Hamilton City Council 'Three Waters Practice Note HCC 03: Soakage' for information on typical design requirements.

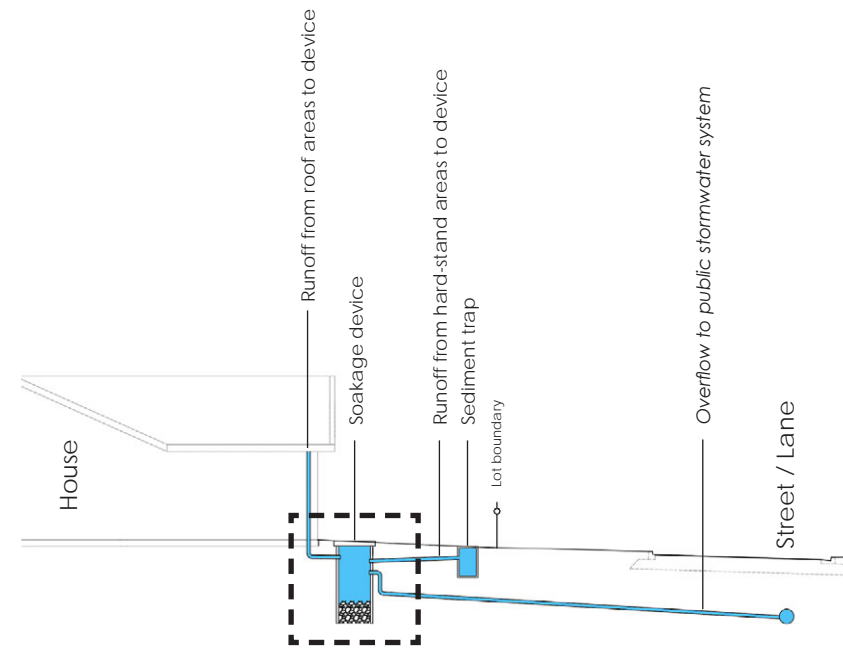


DIAGRAM — 22
Site Soakage Device — Retention

Option 2

SLIMLINE RAIN TANK — RE-USE

The slimline rain tank is to be connected to a separate grey-water household re-use system with a minimum capacity of 5,000L.

KEY REQUIREMENTS

- Rain tank to be connected into a fully integrated grey-water re-use system within the main dwelling with connections to toilets, laundry and irrigation systems.
- All roof run-off is to be captured by rain tanks and available for re-use. Run-off from hard-stand areas (driveways and paving) can be discharged directly into stormwater connection provided.
- A maximum of two (2) tanks may be used to achieve the required storage and align with downpipe locations.
- Overflow to be connected to stormwater connection provided.

LOCATION AND INSTALLATION

Slimline rain tanks should be placed in the rear or side yard of the lot as unobtrusively as possible. Care should be taken, where tanks are placed next to the house, to ensure they are placed adjacent to a blank wall and not in-front of a window.

COLOUR

The colour of all rain tanks should match the colour of the homes exterior wall cladding adjacent to the tank.

* Colours that do not match but are complementary to the design and materials of the house can be approved at the discretion of the Design Review Panel.

FOR MORE INFORMATION

Refer to Hamilton City Council 'Three Waters Practice Note — HCC02 —Rainwater Re-use Systems (Rain Tanks)' for information on design requirements.

APPROVED RAIN TANK PRODUCTS

Tanksalot® Slimline Tank www.tanksalot.co.nz

ThinTanks™ NZ Slimline Rainwater Poly Tank www.thintanks.co.nz

* Other rain tank products will also be considered subject to approval by Greenhill Park.

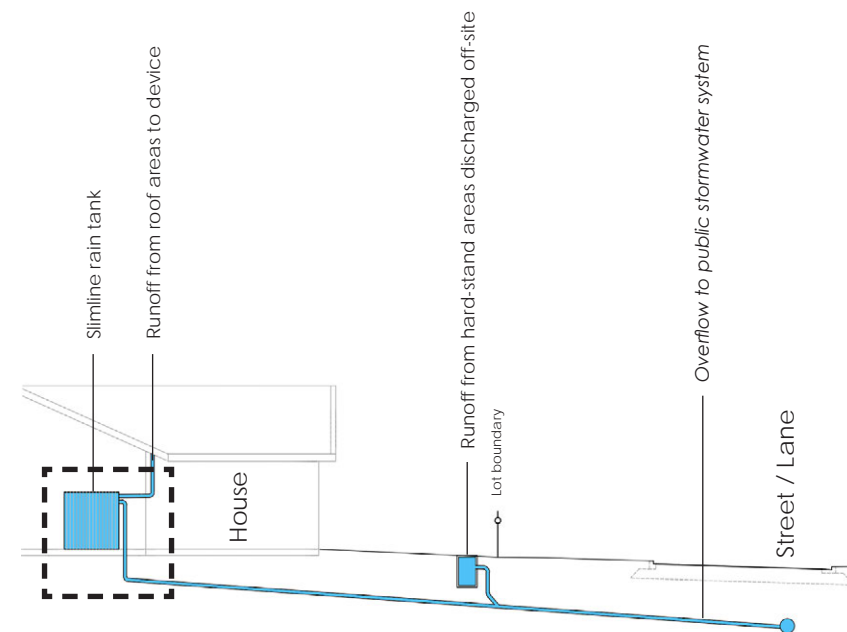


DIAGRAM — 23
Slimline Rain Tank — Re-use

DESIGN REVIEW PANEL

INTRODUCTION

The Greenhill Park Design Guidelines control the architectural and development quality, including the front yard landscape design and fencing, for all lots.

The Design Review Panel (DRP) is the process by which the designs for each lot shall be received, reviewed and approved. The Design Review Panel can approve anything at their discretion.

The DRP will receive designs in three stages —

STAGE 1 FEASIBILITY

STAGE 2 CONCEPT DESIGN

STAGE 3 DEVELOPED DESIGN

Each stage needs to obtain approval from the DRP, however the Feasibility Stage may not be required if the applicant is confident to proceed straight to the Concept Stage.

The DRP may meet with the applicant for each of the Concept Design and Detailed Design processes and provide a simple Design Panel Report, identifying any issues in the following categories. **Each review will typically take up to 10 working days once a submission is filed with the DRP and generally costs \$1,000 + gst if multiple reviews are required.**

The Design Review Panel will identify three types of issues —

FUNDAMENTAL

The application has design issues fundamental to its approval. Approval is not given and the issues need to be addressed and the applicant re-apply for approval of the design at the same design stage.

SIGNIFICANT

The Design Review Panel believe the design has significant issues and these need to be addressed at the next stage of the Design Review Panel process.

OTHER ISSUES

The Design Review Panel provides comment on ways the design can be improved. The applicant is encouraged to take these comments on board but the design is approved.

DRAWING AND INFORMATION REQUIREMENTS

All plans and drawings provided for each stage should be legible and to scale, with a north arrow, and the following lot information — Lot / DP number, street name, applicant name and contact details including, postal address, phone number and email address.

Please tick

STAGE 1 FEASIBILITY

The feasibility check is the first pass. Enough design detail to secure an overall design for the site so you know it can work. Compliance with the main controls — height, setbacks, side yards, etc., must be illustrated. A location plan must also be submitted.

STAGE 2 CONCEPT DESIGN

LOCATION PLAN

Showing the lots location in the context of stages 16 - 26.

SITE PLAN

With setbacks, contours, house and garage footprints, entrance path and driveway.

FLOOR PLANS

ELEVATIONS

3D RENDERED IMAGES

A3 full colour, high quality renders, based on a 3D computer generated model of the house and front yard landscape design including fencing.

LANDSCAPE PLAN

A landscape plan is required for the front yard of all lots. A landscape plan will also need to be prepared for the side yard if the lot is a corner lot or adjoins an open space. Plan to include all fencing, planting, hard surfaces (show concrete cuts) and letterbox design information.

PRELIMINARY MATERIALS, COLOURS AND FINISHES SCHEDULE

LIST OF ALL NON-COMPLIANCES

It is the designer's responsibility to provide a list of all non-compliance issues with the Rules and Design Guidelines.

Please tick

STAGE 3 DEVELOPED DESIGN

All drawings provided to be A3 CAD plans, at an approved scale.

The Design Review Panel is particularly interested in how the front elevation and street frontage works. Including the front facade, front door, entranceway, garage door, driveway and car parking. The design should accurately establish the finished floor levels of the house and garage slabs and resolve any level changes that front the street.

LOCATION PLAN

Showing the lots location in the context of stages 16 - 26.

SITE PLAN

With setbacks, contours, house and garage footprints, entrance path and driveway.

FLOOR PLANS

ELEVATIONS

3D RENDERED IMAGES

A3 full colour, high quality renders, based on a 3D computer generated model of the house and front yard landscape design including fencing.

LANDSCAPE PLAN

A landscape plan is required for the front yard of all lots. A landscape plan will also need to be prepared for the side yard if the lot is a corner lot or adjoins an open space. Plan to include all fencing, planting, hard surfaces (show concrete cuts) and letterbox design information.

MATERIALS, COLOURS AND FINISHES SCHEDULE

Materials, colours and finishes of all exterior finishes shall be nominated.

LIST OF ALL NON-COMPLIANCES

It is the designer's responsibility to provide a list of all non-compliance issues with the Rules and Design Guidelines.