

3.4 **SUBDIVISION**

All subdivision shall require consent to a **controlled activity application** or alternatively to a discretionary activity application or both dependant upon the standards any applicant chooses to meet.

Every application shall meet the specified controlled activity standard, or alternatively where the applicant chooses, the discretionary activity standard where one exists, for each of the following:

- **3.4.1 General Layout** (For sites in *
- General Layout **New Urban**
area only)
- **3.4.2 Suitability of Land, Site Size, Orientation and Access**
 - Natural Hazard
 - Site Size and Shape
 - Access
 - Design and Orientation
- **3.4.3 Neighbourhood Reserve Contributions**
 - Neighbourhood Reserve Contributions
- **3.4.4 Movement Network**
 - Movement Network
- **3.4.5 Pedestrians and Cyclists**
 - Pedestrians and Cyclists
- **3.4.6 Street Design**
 - Street Design
- **3.4.7 Street Construction**
 - Street Construction
- **3.4.8 Utilities Provision**
 - Utilities Provision

In addition every application shall comply with the requirements of rule 14.1 and in the "**Omaha Spit Development**" policy area only, no subdivision shall be allowed unless it is provided for in the consent granted to a comprehensive development plan TP/163/91 on 18 September 1991.

CONDITIONS WHICH MAY BE IMPOSED CONTROLLED AND DISCRETIONARY ACTIVITIES:

In granting consent to a Controlled Activity or a Discretionary Activity for subdivision the Council may impose any condition that ensures that the specified standards and performance criteria are achieved.

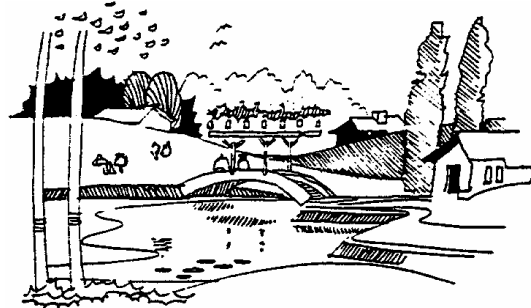
* See definition of **New Urban** in Section 20.

DIST/PC26SC3C

3.4.1

GENERAL LAYOUT(For sites in the **New Urban** * area only)**OBJECTIVES**

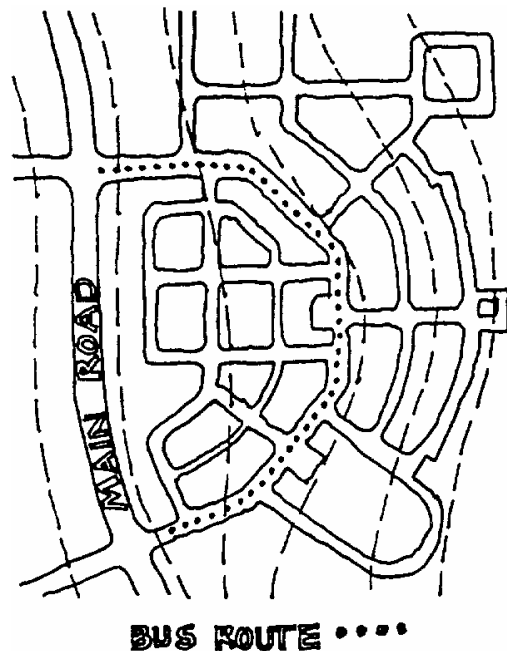
- O1 To provide for the development of residential areas that encourage community development by creating neighbourhood focal points, special character and identity.
- O2 To facilitate an ecologically sustainable approach to urban development by minimising fossil fuel use, protecting environmental assets, and providing for varying intensities of development.
- O3 To provide a movement network which establishes good internal and external access for residents, maximises safety, encourages public transport patronage and minimises the impact of through traffic.
- O4 To provide residential areas which meet the diverse needs of the community with a wide choice in housing and other associated community and commercial uses.
- O5 To provide a reserve network, of appropriate land, that can meet the diverse needs of today's residents, and be adapted to the needs of future users.



O1 Creation of neighbourhood focal points.

PERFORMANCE CRITERIA

- PC1 The subdivision layout to give a residential environment a strong and positive identity, by responding to site characteristics, setting, landmarks and views, and through the street and open space networks.
- PC2 Neighbourhood identity to be reinforced by the consideration of focal points for local community and retail facilities within reasonable walking distance for most residents
- PC3 The street network to provide a high level of internal accessibility and good external connections for local vehicle movements, in conjunction with a traffic management system that restrains vehicle speed and deters through traffic.



O3 Movement network which establishes good internal and external access for residents.

* See definition of New Urban in Section 20.

PC4 The street layout and site density to minimise fossil fuel use as far as is practicable by reducing local vehicle travel distances, maximising public transport effectiveness, encouraging walking and cycling to daily activities, and facilitating use of solar energy.

PC5 The street and site layout to enable efficient provision of physical services.

PC5 The site layout to provide for a variety of housing types, and for other compatible land uses, arranged in a way that encourages provision of local services, facilities and employment, while minimising land use conflicts.

PC6 The subdivision layout to provide site sizes consistent with the function of the activity area including if appropriate, sites capable of accommodating comprehensively designed multiple household unit developments in areas close to focal points.

PC7 In the low density activity area the subdivision layout to reflect the objective of providing larger sites and the retention of existing vegetation and natural features.

PC8 The layout to provide well distributed neighbourhood reserves that will contribute to the legibility and character of the development, are cost-effective to maintain, and provide for a range of informal and passive activities.

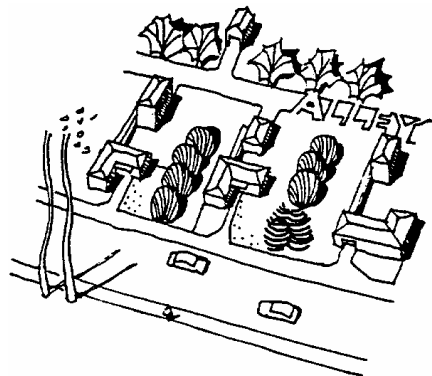
PC9 The layout to retain significant vegetation, incorporate natural and cultural features, and use drainage methods that protect and enhance water courses.

PC10 The layout to integrate with the surrounding urban environment, and encourage development to front major streets, through use of service roads, side or rear access, front way exit or other vehicle access mechanisms.

PC11 The layout should generally be such that major linear or regional open spaces are located to define the boundaries of neighbourhoods, rather than dissect them.



PC7 Retention of existing vegetation.



PC10 Layout to integrate with surrounding urban environment.

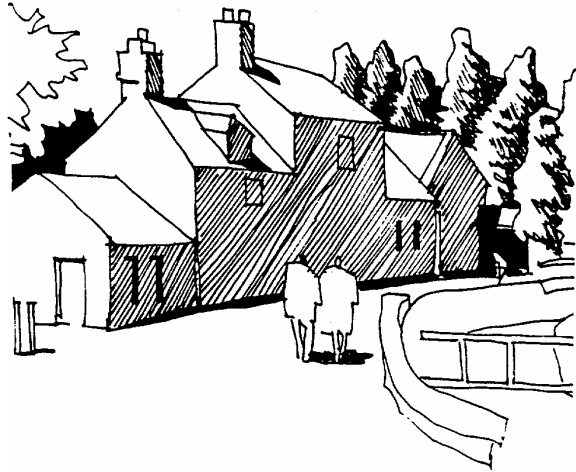
PC12 The layout to enhance personal safety and minimise potential for crime, vandalism and fear, by avoiding blank walls or high fences to streets, and providing for urban open spaces to be under local surveillance.

PC13 The pedestrian network to be safe, attractive and efficient, running largely along streets fronted by houses.

CONTROLLED ACTIVITY

For Land in all Activity Areas

Any situation in which the Performance Criteria are met.



PC13 Provision of a safe pedestrian network.

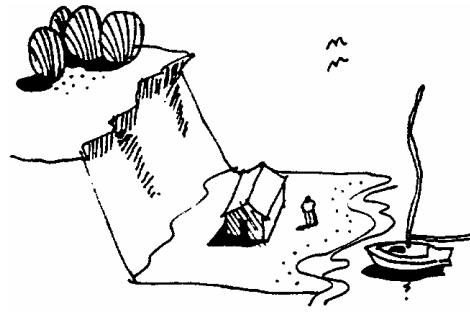
3.4.2 SUITABILITY OF LAND AND SITE SIZE ORIENTATION AND ACCESS

OBJECTIVES

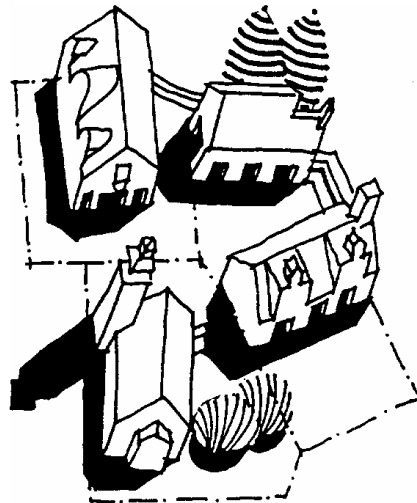
- O1 To ensure that land to be subdivided is suitable for its proposed end use in terms of physical characteristics such as stability, slope and susceptibility to natural hazards.
- O2 To provide sites with area and dimensions that meet user requirements, are consistent with the anticipated environmental outcomes of each activity area and are orientated where practicable to enable microclimate management including the application of energy conservation principles.
- O3 To provide vehicular access to sites which is adequate for their proposed end use.

PERFORMANCE CRITERIA

- PC1 Land from which residential sites are created to be free of instability (or have an approved report setting out the conditions affecting the site), and the risk of flooding in an event with an Annual Exceedance Probability (AEP) of 1%, or inundation, or any other natural hazard, which may endanger life or property.
- PC2 Site sizes to be consistent with the intended level of intensity of respective activity areas. In particular in the low intensity activity areas to provide large site areas affording extensive areas of space around dwellings, in the medium intensity activity area to provide sites of sufficient size to enable activities associated with family living - including outdoor recreation, food/fruit production, amenity planting, service areas and accommodation of motor vehicles - to occur, in the high intensity activity area to provide small sites providing minimal areas of space about buildings.
- PC3 Site sizes to meet the projected requirements of people with different housing needs.



PC1 Site unsuitable because of susceptibility to flooding.



PC3 Site sizes for different housing needs.

PC4 The existing landform to be the basis of any subdivision pattern in the low intensity activity area and where possible in other activity areas. Rooding and service corridors are to be laid out accordingly.

Significant stands of vegetation to be retained and protected wherever possible.

PC5 The majority of sites in new residential areas to have a size and orientation that allows household unit locations to maximise access to winter sunshine.

PC6 Sites to have the appropriate area and dimensions to enable the siting and construction of a dwelling and ancillary buildings, the provision of private outdoor space, convenient vehicle access and parking and to permit solar access, and any other relevant site and design requirements of the District Plan.

PC7 Sites to have adequate physical and legal access at the frontage sufficient to enable permitted activities to establish and operate freely.



PC4 Retention of significant stands of vegetation wherever possible.

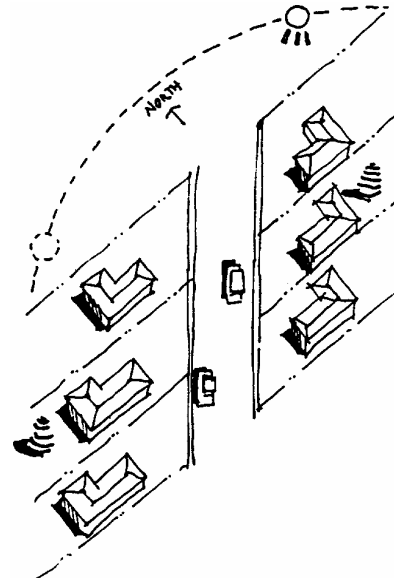
CONTROLLED ACTIVITY

Natural Hazard

For land in all Activity Areas

Each site shall contain a stable building area, flood free in an event with an Annual Exceedance Probability (AEP) of 1%, suitable for building foundations complying with the requirements of the New Zealand Building Code - Acceptance Solution B1/AS4 of Approved Document B1/4:Structure Foundations, and with stable practical vehicle access from the frontage to the building area. Such building area shall be not less than 225 square metres, shall have a least dimension of not less than 10 metres, and shall be clear of all public or common private utilities and required yards.

In all cases where it is necessary to modify any land within the subdivision to satisfy this rule, the subdivision consent application shall be supported by a report prepared by a registered engineer with relevant specialist experience detailing the works necessary and proposed.



PC5 Site size and orientation to maximise access to winter sunshine.

Site Size and Shape

(All site areas specified are net site areas)

For land within Low Intensity Activity Area:

- Sites with an area of 8000 m² or greater capable of containing a square for building purposes measuring 50 m x 50 m.
- Sites with an area of 4000 m² (**new urban** areas only) or 6,000 m² (**established** area only) or greater designed to accommodate a household unit where the household unit has been consented to by Council and is in existence as part of an approved multiple household unit.

For land within the Medium Intensity Activity Area:

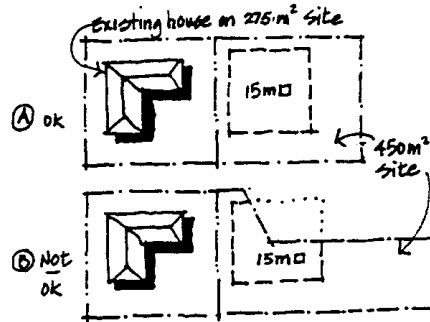
- In the "Township" policy area, sites with an area of 1000 m² or greater capable of containing a square measuring 15 m x 15 m unless the sites will not be served by a reticulated sewerage system in which case the area of each site shall be 1500 m² or more, and the applicant must satisfy the Council that an adequate means of on site sewage collection, treatment and disposal can be provided.
- In the "East Peninsula" policy area sites with an area of 700 m² or greater capable of containing a square measuring 15 m x 15 m.
- In areas other than the "Township" and "East Peninsula" policy areas sites with an area of
 - 500m² in the **new urban** area*
 - 600m² in the **established** area#

capable of containing a square measuring 15 m x 15 m unless the sites will not be served by a reticulated sewerage system in which case the area of each site shall be 1500 m² or more, and the applicant must satisfy the Council that an adequate means of on site sewage collection, treatment and disposal can be provided.

- In areas other than the "East Peninsula" policy area sites with an area of 375m² or greater designed to accommodate a household unit where the household unit has been consented to by the Council and is in existence.
- * See definition of **New Urban** in Section 20
- # See definition of **Established** in Section 20

For land within the High Intensity Activity Area:

- Sites with an area of 450m² or greater capable of containing a square measuring 15 m x 15 m, Provided that there shall be no further subdivision of sites in the "future commercial" policy area.
- Sites with an area of 275m² or greater designed to accommodate a household unit where the household unit has been consented to by the Council and is in existence, Provided that there shall be no further subdivision of sites in the "future commercial" policy area.



Sites required to have 15m x 15m square.

Access

For land within the Low Intensity Activity Area:

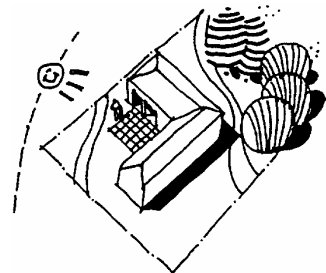
- A minimum frontage 16 metres where the combined area of sites solely dependant on such access is 2.4 ha or less, and a minimum frontage of 17.5 metres where the combined area of sites solely dependant on such access is more than 2.4 ha.

Up to 5 sites may gain frontage over a jointly owned access lot or right of way for the benefit of the sites or a combination of both.

For land within the Medium and High Intensity Activity areas:

- A minimum frontage of 3.7 metres where up to 3 sites use the frontage, and a minimum frontage of 6 metres where 4 or more sites use the frontage.

Up to 10 sites in the medium intensity activity area and up to 5 sites in the high intensity activity area may gain frontage over a jointly owned access lot or right of way for the benefit of the sites or a combination of both.



Design and orientation of sites to maximise access to winter sunshine.

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Design and Orientation:

- For all Activity Areas:
Sites which maximise access to winter sunshine, retain existing landform where practicable and significant stands of vegetation.
- For Pt Lot 24 DP 11482 Blk VII Kumeu SD and Pt DP 24846 Blk VII Kumeu SD (Waimauku Township) or any subsequent subdivision thereof:
Any application for subdivision of any part of the abovementioned land shall be accompanied by a plan illustrating how the subject land can be subdivided, serviced and roaded in the future in order to meet the standards set out in Rule 3.4 for sites in the Medium Intensity activity area - Township Policy area.

DISCRETIONARY ACTIVITY**Natural Hazard**For Land within All Activity Areas

Any site containing an area flood free in an event with an Annual Exceedance Probability (AEP) of 1% with stable practical vehicle access from the frontage to the building area and for which any other controlled activity criteria are not met, but for which a report, prepared by a registered engineer with specialist knowledge relevant to the criteria not met, setting out the limitations affecting the site has been submitted to and the findings of the report accepted by the Council.

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing any application made in terms of:

Natural Hazard

- *In the case of land instability, erosion or inadequate foundation soils strengths, the applicant shall provide a geotechnical report, prepared by a Registered Engineer experienced in soil mechanics, detailing the site subsoil conditions and setting out any limitations on building location or design, or excavation, and appropriate design soil parameters for the safe development of the site without resort to the provisions of section 36 of the Building Act 1991.*

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- *In the case of sites limited by inundation the applicant shall provide a detailed level survey of the site in terms of DOSLI datum, and, in the case of sites in catchments for which the Council has no flood level data, a report by a Registered Engineer experienced in catchment hydraulics determining the 1% AEP flood levels at the site.*
- *In the case of an application made to reduce the building area below 225 m² or to reduce the least dimension of the building area below 10 metres, the Council will consider the ability to locate a dwelling complying with the performance criteria of the building code and complying with the other development controls in this plan.*
- *Where any application is made to include a building area that is not clear of public or common private utilities the advice of the utility operator will be sought in relation to any application. The encroachment should not affect the safe and efficient running of any utility network or part of any network and should ensure that reasonable means of access is available for inspection and maintenance of the utility, at no additional expense than would normally be the case.*

Such sites shall be subject to a Consent Notice under s221 of the Resource Management Act.

Site Size and Shape Access

For Land within the Low Intensity Activity Area:

- Any situation in which the controlled activity standard is not met but the performance criteria are met and the minimum shape dimension is not reduced below 30 metres.

For Land within the Medium and High Intensity Activity Areas:

- Any situation in which the controlled activity standard for access, site size and shape are not met, but the performance criteria are met.

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing any application made in terms of:

Site Size and Shape:

- *The site should be of such a shape to permit the erection of a dwelling complying with the performance criteria of the building code and complying with other development controls in this plan.*
- *The site should be of such shape to permit access to any building area on the site to be achieved over the same site, except in the case of a site served by a jointly owned access lot.*
- *In the Medium and High Intensity Activity Areas the controlled activity standard for site size should not be reduced more than 10%.*

Access

- *In relation to the width of the access, the Council will consider:*
 - *The ability of the site to fulfil its residential function without undue hardship for occupants.*
 - *The convenience and safety of the access for users and adjoining sites.*
 - *The ability of the access to be used by vehicles associated with residential activities.*

In relation to the number of sites gaining frontage, the Council will consider:

- *The number of sites and potential dwellings proposed to be served.*
- *The impact on the ability of sites to be serviced by refuse collection mail delivery etc.*
- *Whether or not agreements for maintenance of the right of way or access lot formation will be entered into.*
- *The effects of additional traffic on the amenity of the properties to be served by any affected access.*

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3.4.3 NEIGHBOURHOOD RESERVE CONTRIBUTIONS

OBJECTIVES

- O1 To ensure that neighbourhood reserves of appropriate quality and quantity are provided in convenient locations to meet the needs of the community.
- O2 Natural and cultural features should be used wherever possible as a basis for the location of neighbourhood reserves.
- O3 To ensure that the increased demand placed upon the established neighbourhood reserve network as a result of additional dwellings is ameliorated.
- O4 To recognise that in the low intensity Residential Activity Area, the activities normally associated with neighbourhood reserves can be accommodated within the individual sites.

PERFORMANCE CRITERIA

- PC1 Neighbourhood reserves should be provided having considered:

The distance and accessibility of the neighbourhood reserve to users.

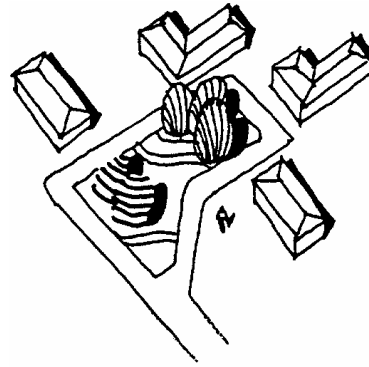
The quality of the reserve in terms of its potential to be used for structured and unstructured activities.

The relationship of the reserve to the surrounding street and site layout such that the personal safety, surveillance and convenience of users is promoted.

Opportunities to link open space networks, community facilities and public services.

The size of the population that will be served by the neighbourhood reserve.

The presence of other neighbourhood reserves in the vicinity (e.g. land adjoining or nearby to existing neighbourhood reserves may obviate the need to provide additional land, in which case a cash contribution, or land, or works, or services or a combination of these may be required).



- O1 Reserves to be provided in convenient locations.

- PC2 A neighbourhood reserve should be consistent with and/or complementary to the neighbourhood reserve network identified in Appendix 3E.

CONTROLLED ACTIVITY

For land within the Low Intensity Activity Area

- No neighbourhood reserve contribution shall be required.

For land in the Medium and High Intensity Activity Area

- No neighbourhood reserve contribution shall be required for subdivision of existing household units.

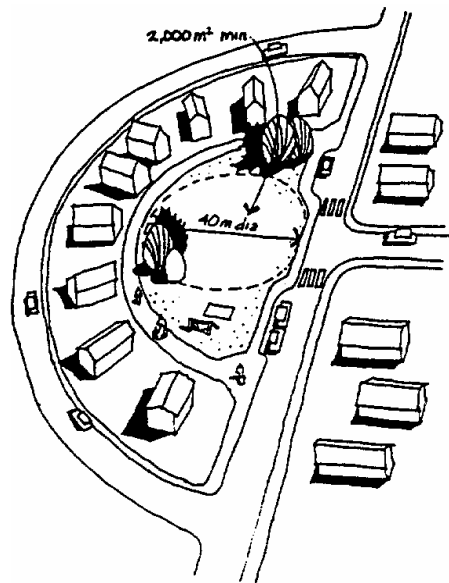
Subdivision of 67 sites or less

- A cash contribution equal to the value of 30m² per each additional residential site created shall be required, unless the proposed subdivision includes land that has been identified for neighbourhood reserve purposes in Appendix 3E in which case the identified land or a combination of the identified land and cash shall be required.

The value of 30m² shall be determined as the average value of 30m² of all additional residential sites (except a residual or parent site), and shall be calculated by a registered valuer.

Subdivision of more than 67 sites

- A neighbourhood reserve contribution complying with the following criteria shall be required:
 - (1) A contribution in land of 30m² per each additional residential site created.
 - (2) No reserve shall be less than 2000m² in size (excluding accessways).
 - (3) Neighbourhood reserves should be located so as to ensure that all sites in the subdivision are within 500 metres walk of an existing or proposed reserve.



Area and shape criteria for neighbourhood reserves.

- (4) Neighbourhood reserves should be suitable for structured and unstructured play and at least 75% of the area of the 40m diameter circle shall have an inclination of no more than 4°.
- (5) The shape factor of the neighbourhood reserve should be such that it is able to contain a 40m diameter circle.
- (6) All parts of a neighbourhood reserve outside the 40m diameter circle specified in (5) above to have a minimum dimension of 5 metres.
- (7) Neighbourhood reserves should relate to the street and site layout in a manner that promotes personal safety, surveillance and convenience for users of the reserve.
- (8) Neighbourhood reserves should have a continuous street frontage of at least 5 metres.
- (9) Where land is required, it shall be vested in the Council at no charge and shall be in a completed and grassed state.

Credits

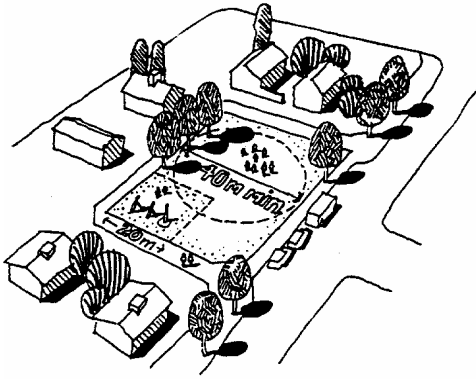
Land Subdivided Prior to or on 15 February 1994

Reserve credits formally accepted by the Council prior to or on 15 February 1994 shall be credited towards any contribution payable under this rule and Rule 3.5.

Land Subdivided After 15 February 1994

A neighbourhood reserve contribution that has been assessed and paid in land in excess of the requirements specified in Rule 3.4.3 and which has been formally accepted by the Council for future credits shall be credited towards any future contribution payable at the rate of 30 m² for each new site or household unit.

Where the Council requires land (as identified in Appendix 3E in excess of the normal amount to be vested for neighbourhood reserve purposes the Council shall; either (a) grant credits to the subdivider as described above; or (b) pay a cash compensation for the additional land vested as neighbourhood reserve.



Area and shape criteria for neighbourhood reserves.

Assessment Criteria for Accepting Credits

In deciding whether future credits will be accepted by the Council, the Council shall have regard to the Neighbourhood Reserve network identified in Appendix 3E and the Performance Criteria in Rule 3.4.3.

Application of Credits Acquired Prior to or on 15 February 1994

Credits acquired prior to or on 15 February 1994 may be used to offset a reserve contribution required for any subdivision or household unit which requires a reserve contribution, unless the proposed subdivision includes land that has been identified for a neighbourhood reserve (refer Appendix 3E) in which case the identified land shall be required and any cash difference shall be refunded or further credits carried over.

Application of Credits Taken After 15 February 1994

Credits may only be applied to a subdivision or development in the vicinity of the land for which the original reserve contribution was taken, provided that their application is consistent with the Neighbourhood Reserve network identified in Appendix 3E and the Performance Criteria in Rule 3.4.3.

DISCRETIONARY ACTIVITY

In the **New Urban*** area any situation involving a subdivision where the performance criteria are met but any one or more of the criteria specified for reserve contributions are not met.

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing any application for a discretionary activity:

The extent to which the land can function (or will contribute to the functioning of an industrial neighbourhood reserve) whilst achieving the objectives and performance criteria.

* See definition of New Urban in Section 20.

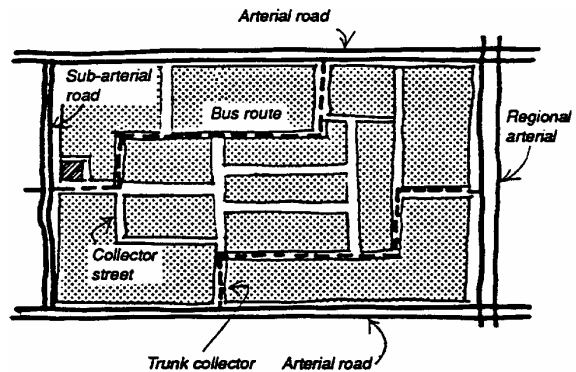
3.4.4 MOVEMENT NETWORK

OBJECTIVES

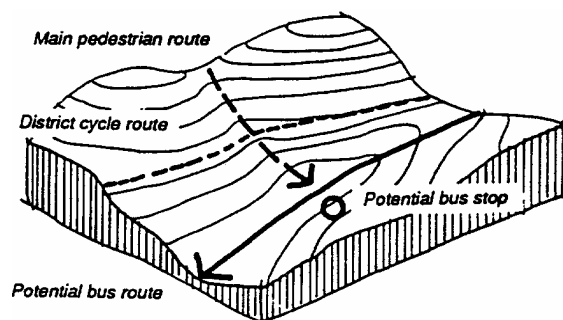
- O1 To provide acceptable levels of accessibility, safety and convenience for all street and road users in residential areas, while ensuring acceptable levels of amenity, and protection from the impact of traffic.
- O2 To provide a safe, convenient and legible movement network for pedestrians and cyclists, incorporating all weather paths and access to points of attraction within and adjoining the development.
- O3 To provide a network of streets with clear physical distinctions between each type of street, based on function, legibility, convenience, traffic volumes, vehicle speeds, public safety and amenity.
- O4 To provide for bus routes which are both accessible from all dwellings and activity centres, and efficient to operate.
- O5 To provide an acceptable level of streetscape.
- O6 To integrate the street network with natural drainage and open space systems.
- O7 To cater for the efficient provision of public utilities networks including water supply, sewerage, electricity, telecommunications and gas services.
- O8 To establish a movement network which provides convenient linkages to activity centres either within or adjoining the development.
- O9 To provide the basis for cost-effective design and construction of the street network.

PERFORMANCE CRITERIA

- PC1 Within any network in a residential area the component streets to conform to the adopted functions set out.
- PC2 The arterial road network to be designed and located so that it provides routes which are more convenient for external traffic than the residential street network. Arterial roads to be provided at intervals of not more than 1.5 kilometres and have adequate capacity to accommodate projected movement.
- PC3 The internal street layout to conform to the requirements and the principles of this Code.



The movement network should provide for pedestrian and cycleways, bus routes, and roads/streets. All must be planned from the start and well integrated



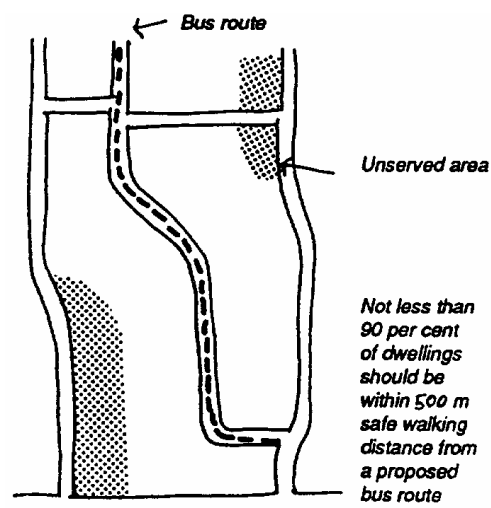
The most vulnerable groups using street networks - pedestrians, cyclists and bus travellers - should be considered first.

- PC4 The design features of each type of residential street to convey its primary functions and encourage appropriate driver behaviour.
- PC5 Connection between residential streets to be either controlled by T-junctions, roundabouts or other appropriate traffic management treatment to slow and control traffic.
- PC6 Where *access streets* or *places* form part of a pedestrian or cycle network, access links to provide suitable connections to adjoining access streets or open space systems so that the pedestrian and cycle networks are functional, cost-effective and capable of visual surveillance by residents.
- PC7 The street and road network to provide for or be physically capable of providing for bus routes within acceptable walking distance of all dwellings.
- PC8 Bus routes to be as direct as possible. The alignment and geometry of the streets that form the bus route to allow for the efficient and unimpeded movement of buses without facilitating high traffic speeds.
- PC9 Provision for pedestrians and cyclists to be in accordance with Rule 3.4.5 - **Pedestrians and cyclists.**

CONTROLLED ACTIVITY

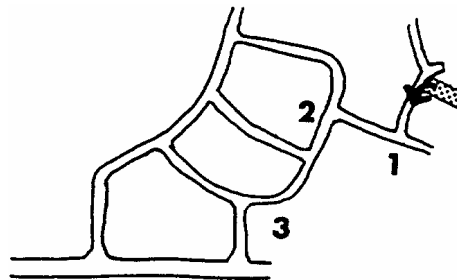
The following are considered to meet the objectives and performance criteria:

- Street and road network conforming to a *local structure plan, outline development plan* (or similar), for the area showing an existing and proposed major road network above the level of collector road which satisfies projected travel.
- At least 90 per cent of household units being within 500 metres safe walking distance from an existing or potential public transport route (a potential route is any situation where street design and street construction make a street able to function as part of a network and physically capable of accommodating the regular passage of buses) and not more than 750 metres from the nearest stop or potential stop.
- The streets suitable for bus routes through the development being no more than 30 per cent longer than bus routes on the arterial network.



- Provision for pedestrians and cyclists in accordance with Rule 3.4.5 - **Pedestrians and cyclists.**
- The street network with the characteristics specified in Tables 3.4.4A.
- Trunk collectors less than 150 metres in length, except where the topography or the location of arterial and sub-arterial roads make a longer distance unavoidable.
- No more than three turning movements at intersections or junctions required to travel from any address to the most convenient collector street or higher order road.
- Internal intersections either being T-junctions or roundabouts or controlled by other appropriate traffic management treatments to slow and control traffic.
- Internal road junctions spaced in accordance with the "Rodney District Council Code of Subdivision - Engineering Standards for Subdivision and Developments, standard details".
- The desired design street speeds, specified in Table 3.4.4A, achieved according to the following design principles.

MAXIMUM TURNING MOVEMENTS



No more than three turning movements should be required between any address and the nearest collector street, or arterial road. Street design and other features should enhance legibility.

In steep terrain more turning movements may be required.

Table 3.4.4A CLASSIFICATION OF RESIDENTIAL STREETS

Residential Streets Type and function	Design speed (km/h)	Indicative traffic vol. (veh/d) ⁽¹⁾
Access place The <i>access place</i> is a street in which the residential environment is dominant and traffic is completely subservient. A low-speed environment to allow pedestrians and cyclists to share the carriageway. The number of household units served must be small and should not exceed 30. The maximum effective length of an access place should ensure its status as a residential place. An <i>access place</i> may include an access lane to give rear access to lots.	15	300
Local street A <i>local street</i> is a street where the residential environment is dominant, traffic is subservient, speed and volume are low, and pedestrian and cycle movements are facilitated. Vehicle speeds should be controlled by street length and/or alignment. Preferably, a local street should serve fewer than 100 household units and no more than 200.	30 40	1000 2000

Collector road

The *collector road* collects traffic from the access places and local streets and carries high volumes of traffic. A reasonable level of residential amenity and safety is to be maintained by restricting traffic volumes and vehicle speeds. Vehicle speeds on collector roads should be controlled by street alignment and intersection design.

50 3000

Principal route

The principal route provides a connection between the residential streets and the traffic route system where it is desirable to concentrate local traffic to an outlet, but not to attract through traffic. Its function is to facilitate the convenient and safe movement of residential traffic to and from the arterial road system. It is not a typical residential street. Large-scale residential forms of development may be considered on these streets with special siting conditions ensuring acceptable amenity.

70 6000

Arterial road: major routes catering for more than 7000 vpd.

LIMITING STREET LENGTH

- *Street lengths* as specified in Table 3.4.4.B where limited to control vehicle speed.

Table 3.4.4B STREET LEG LENGTH AND DESIGN SPEED

Street leg length (metres)	Design speed ⁽¹⁾ (km/h)
40	25
75	30
100	35
120	40
140	45
155	50

(1) For down grades between 5 and 10 per cent the maximum speed is increased by 5 km/h; for grades of 10 per cent and more, the maximum speed is increased by 10 km/h.

INTRODUCING BENDS

- Where bends are introduced, the radius of the bend in relation to the design speed to be in accordance with the Rodney District Council "Code of Subdivision - Engineering Standards for Subdivision and Developments Standards Details".

INTRODUCING SLOW POINTS

- Where *slow points* are used with or without bends in order to achieve a prescribed speed, the length of street between slow point or bend is not less than 100 metres.

3.4.5 PEDESTRIAN AND CYCLISTS

OBJECTIVES

- O1 To provide a safe, convenient, and legible movement network for pedestrians and cyclists utilising the street system as far as practicable.
- O2 To encourage the use of walking and bicycling to daily activities as distinct from recreational walking and cycling.

PERFORMANCE CRITERIA

PC1 A network of pedestrian ways and cyclist ways to be in accordance with any approved cycle way plan, which has been prepared by the Council having considered:

- projected travel demand;
- opportunities to link open space networks, community facilities and public services; and
- environment, location, safety and weather factors.

PC2 Design of street network to accommodate pedestrian use of street pavement in access places. At least one footpath to be provided for local streets at all times and two for collector roads, principal roads and arterial roads.

PC3 The street network should aim towards providing a permanent network of low speed routes for cyclists and to promote the use of any streets included in such routes for on-pavement cycling for daily activities. Design of street pavements in all residential streets to facilitate use by cyclists. Abutting cul de sacs to have a cycle path connection.

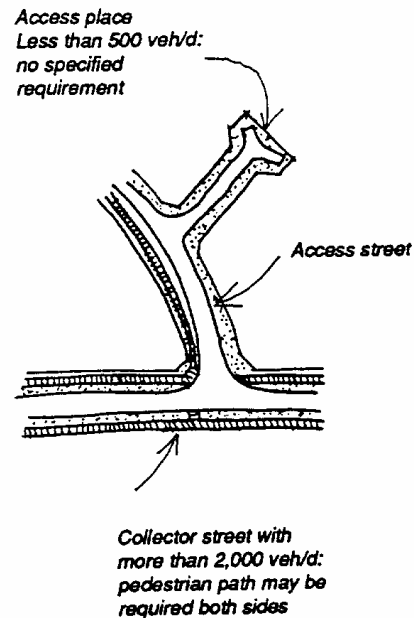
PC4 Where shared use of street pavement is not appropriate, provision to be made for construction of a non-skid durable path of sufficient width and strength for:

- use by pedestrians;
- use by cyclists where warranted.

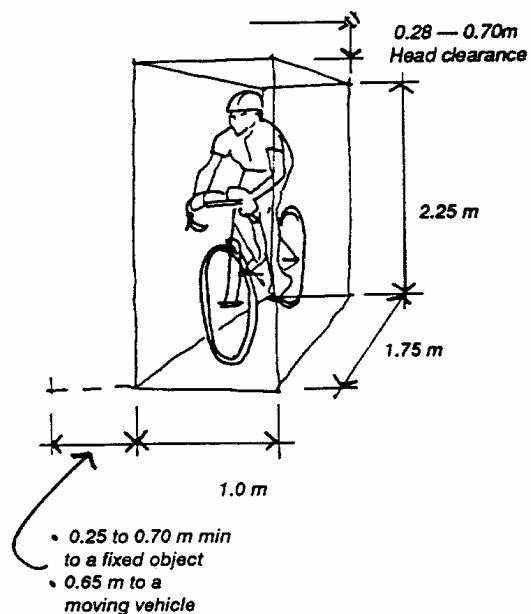
PC5 Design of footpaths or shared paths to facilitate ease of use by the disabled, aged and very young.

PC6 Gradients on all residential streets (but particularly on major cycle routes) should be gentle wherever possible to facilitate use by cyclists.

FOOTPATH PROVISIONS



BICYCLE OPERATING SPACES



PC7 The maximum longitudinal gradient of cycle paths shall be no greater than any adjacent street pavement.

PC8 Alignment of paths to allow safe and convenient use by pedestrians and cyclists and be varied to preserve trees and other significant features and focus on vistas and landmarks to add visual interest where possible.

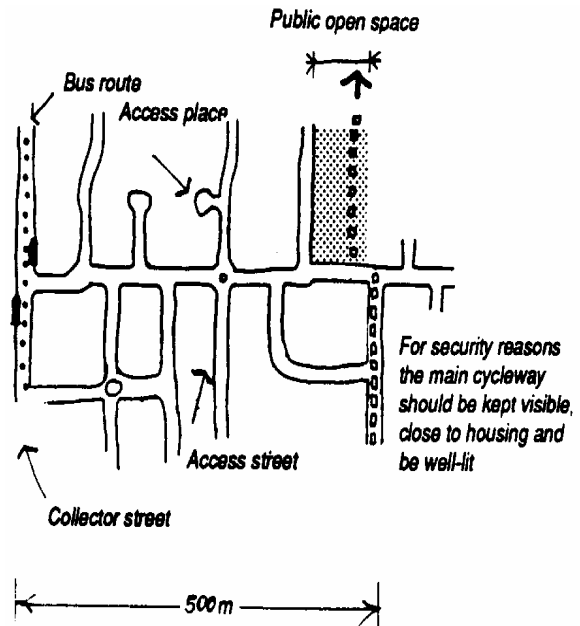
PC9 Widening of paths to be provided at meeting points on high facilities to allow for passing of pedestrians/cyclists in opposite directions, and to allow for seats in appropriate locations.

CONTROLLED ACTIVITY

The following are considered to meet the design element, objective and performance criteria:

- Pedestrian footpaths and cyclist paths provided according to Table 3.4.6A and subject to the additional Performance Measures below.
- Where provision must be made for a separate pedestrian footpath (refer Table 3.4.6A) such paths shall be of bitumen, concrete or blockwork to the approved construction standard.
- Where street pavements are 6 metres or less in width, footpaths may abut a kerb, though a preference exists for a verge separation between path and road surface.
- Where an approved plan exists (i.e. comprehensive pedestrian cycle network) pedestrian footpaths and cycle paths provided in accordance with that plan and constructed in accordance with the approved construction standard.
- Wider footpaths in excess of 1.4 metres shall be required in the vicinity of meeting points, schools, shops and other activity centres.
- Shared paths of at least 2 metres in width may be provided anywhere in the local street network that forms a major route used by inexperienced cyclists e.g. on collectors or trunk collectors near to primary schools.
- Cycle paths adjacent to trunk collector streets or designated cycle routes shall be 2.0 metres in width.
- Blockwork paving should be avoided where it is proposed that pedestrians and cyclists are to share the same path.

CYCLEWAY LOCATIONS



- Where slow points or carriageway narrowings are provided in accordance with Rule 3.4.4 movement network, provision shall be made for cyclists either by speed compatibility, or off pavement diversions.

3.4.6 STREET DESIGN

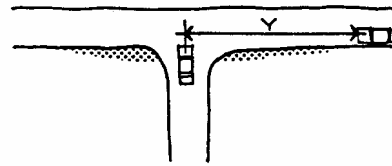
OBJECTIVES

- O1 To provide sufficient width of *carriageway* and *verge* to allow streets to perform their designated functions within the street network.
- O2 To allow cars and buses, pedestrians (including disabled persons) and cyclists and other users of the street to proceed safely and without unacceptable inconvenience and delay.
- O3 To provide street geometry which is consistent with the needs of the street function, physical land characteristics and safety.
- O4 To accommodate on-street parking where required.
- O5 To provide a safe and pleasant environment for residents and other users of adjoining properties.
- O6 To minimise the carriageway's visual impact on residents.
- O7 To accommodate public utility services and drainage systems.
- O8 To minimise street construction and maintenance costs without compromising other objectives.

PERFORMANCE CRITERIA

- PC1 The *street reserve* width to be sufficient to cater for all functions that the street is expected to fulfil, including the safe and efficient movement of all users, provision for parked vehicles, acting as a buffer against traffic nuisance for residents, the provision of public utilities and landscaping.
- PC2 The *carriageway* width to allow vehicles to proceed safely at the operating speed intended for that type of street in the network, with acceptable minor delays in the peak period. This is to take into consideration the restrictions caused by parked vehicles where it is intended or likely that this will occur on the carriageway.
- PC3 The safety of pedestrians and cyclists, where it is intended they use the *carriageway* to be assured by providing sufficient but not excessive width.

ROAD DESIGN AND VISIBILITY

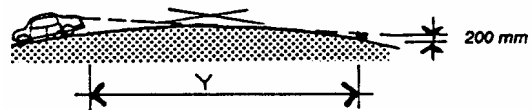
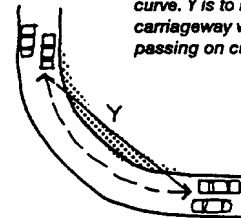


(a) Priority junctions and driveways

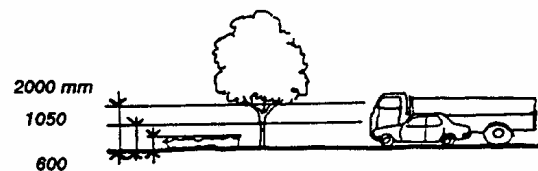
Uninterrupted visibility to be provided over entire shaded area. Hilly terrain may require junctions to be moved away from crests to satisfy sight distance requirements.

(b) Horizontal curves

Shaded area to be kept clear of objects obstructing visibility including planting with foliage in the height range 0.6 m to 2.0 m. Area determined by plotting sight distances for all positions around curve. Y is to be increased where carriageway width does not allow passing on curve.



(b) Vertical curves



(c) Carriageway edge

Planting with foliage in the height range 0.6 m to 2.0 m should not restrict the available sight distance to less than Y on streets with frontage access

Y = the required stopping distance for the design speed of the street

- PC4 The design features of each type of *residential street* to convey its primary function and encourage appropriate driver behaviour.
- PC5 The *carriageway* width to allow for unobstructed access to individual lots. Motorists to be able to enter or reverse from a lot in a single motion. Design of the carriageway to discourage motorists from travelling above the intended speed by reflecting the functions of the street in the network, in particular, the width and horizontal and vertical alignment not to be conducive in excessive speeds.
- PC6 Appropriate *street reserve* width to be provided to enable the safe location, construction and maintenance of required paths and public utility services (above or below ground) and to accommodate the desired level of landscaping.
- PC7 The *verge*, when considered in conjunction with the horizontal alignment and permitted fence and property frontage treatments, to provide appropriate sight distances taking into account expected speeds and pedestrian and cyclist movements.
- PC8 Stopping sight distances and junction or intersection sight distances to be based on the legal gazetted speed limits for the area.
- PC9 The horizontal and vertical alignment to be in accordance with the Rodney District Council "Code of Subdivision - Engineering Standards for Subdivision and Developments Standard Details".
- PC10 NZS4404 guidelines relating to vertical curvature, sight distance, turning radii and road geometry to be considered as appropriate.
- PC11 The design of intersections or junctions to allow all desired movements to occur safely without undue delay. Projected traffic volumes to be used in designing all intersections or junctions on traffic routes.
- PC12 Bus routes to have the minimum carriageway widths specified in Table 3.4.6B.
- PC13 Where required, separate provision to be made for vehicles to park safely.
- PC14 In *access places* adequate provision to be made at the end of any no through street for those vehicles which frequently use such streets to turn around.

PC15 The drainage function of the carriageway and/or street reserve to be satisfied by the cross-section profile of the total street reserve.

CONTROLLED ACTIVITY

The following are considered to meet the design element objectives and performance criteria:

- Carriageway widths for each type of street as specified in Table 3.4.6A.
- Parking provision within the street reserve as specified in Table 3.4.6A.
- Kerbing of the type specified in Table 3.4.6A. Compliance with Section 331(2) of the Local Government Act 1974 making provision for disabled persons is required.
- Pedestrian and cyclist facilities of the type and dimension specified in Table 3.4.6A.
- Verge width having the highest value of the following minim:
 - The minimum width necessary to accommodate services, 1.4 metres wide footpaths as required in Table 3.4.6A, verge parking as required in Table 3.4.6A and the desired level of landscaping;
 - The minimum verge width necessary to provide an acceptable level of safety for pedestrians and vehicles reversing from driveways on streets with frontage access as specified below for the various speeds.

10 km/h	2.5 metres
20 km/h	3.5 metres
30 km/h	4.0 metres
40 km/h or higher	4.5 metres

Where protuberances are provided to delineate parking areas on carriageway, subtract width between kerb and line defined by protuberance edge closest to centre of carriageway.

MEASURES TO CONTROL VEHICLE SPEED IN ACCESS STREET

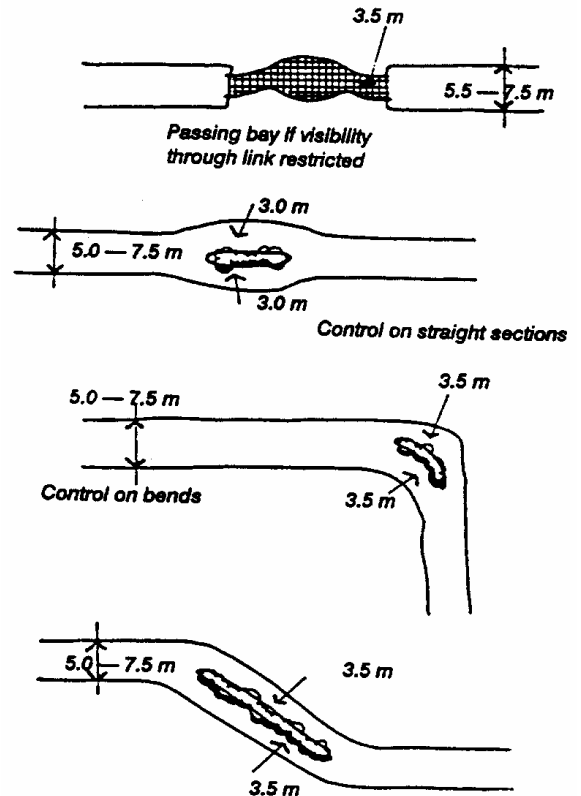


Table 3.4.6A - CHARACTERISTICS OF STREET TYPES

<u>Street Type</u>	<u>Indicative Traffic Volume</u>	<u>Design Speed km/hr</u>	<u>Traffic Lane Width m (exclusive of parking)</u>	<u>Parking Provisions Within Street Reserve</u>	<u>Dimensions of Parking Spaces</u>	<u>Kerbing</u>	<u>Footpath Provision</u>	<u>Cyclepath Provision</u>	<u>Verge Width (Each Side)</u>
Access place	300 veh/d	15	6.0 m ⁽¹⁾ (2)	1 hardstanding verge space per site	In accordance with Table 3.4.6B	Mountable/ ⁽⁶⁾ upright with drainage channel	1.4 m wide footpath (if required)	Not required	4 m minimum
Local street	Up to 1000 veh/d	30	6.0 m	1 hardstanding verge space per site	In accordance with Table 3.4.6B	Mountable/ ⁽⁶⁾ upright with drainage channel	1.4 m wide footpath (both sides)	Not required	4 m minimum
	1000 to 2000 veh/d	40	6.5 m						
Collector road	3000 veh/d (with access to residential lots)	50 (20 km/h at designated ped/cycle crossings) ⁽³⁾	7.0 m	1 hardstanding verge space per site		Upright with drainage channel ⁽⁶⁾	1.4 m wide footpath (both sides)	If required by an approved cycleway plan 2.0 m cycle path one side only in the verge or two 1.5 m wide cycle lanes marked on the carriageway ⁽⁴⁾	4.0 m minimum
Principal route	3000-7000 veh/d	100	Dual carriageway (2 x5m minimum) plus median. Indented bus bays on bus route	If required parking to be provided in areas/locations which can be exited in a forward direction and includes parallel parking		Upright with drainage channel ⁽⁶⁾	1.4m wide footpath (both sides)	2.0m cycle path one side only in the verge or two 1.5m wide cycle lanes marked on the carriageway	4.0m minimum
Arterial road	Subject to specific design								

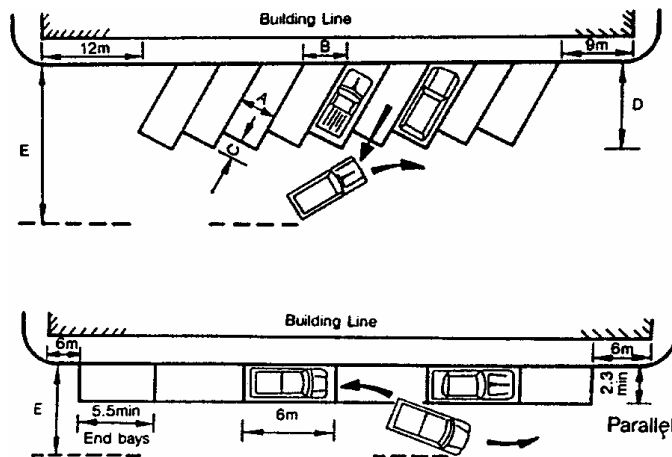
Footnotes:

- (1) Traffic calming devices shall be incorporated into street design.
- (2) No footpath shall be required if the width is 5 m (exclusive of parking requirements).
- (3) Requires special design and control so that vehicle speeds are reduced progressively.
- (4) Where cycle use can be anticipated, an uninterrupted cycle lane of 1.5 m in width is required along the kerb (to be delineated by a 150 mm wide white line).
- (5) Design speed on Principal route not to exceed legal speed limit.
- (6) Compliance with Section 331(2) of the Local Government Act 1974 making provision for disabled persons is required.

Table 3.4.6B - DIMENSIONS OF PARKING SPACES**TABLE 3.4.6B - PART A - PARKING SPACE DIMENSIONS**

(Note: All dimensions are metres unless otherwise specified.)

Parking angle	Width of parking space (A)	Width/Length of parking space on kerb (B)	Rear overlap (C)	Depth of parking space (D)	Depth of parking allowing for kerb overhang (D*)	Total depth including manoeuvring (E)
Parallel	2.3	6.0	-	2.3	2.3	Refer Part B
90°	2.5	2.5	-	5.4	4.8	Refer Part B
60°	2.5	2.9	1.45	5.95	5.3	Refer Part B
45°	2.5	3.5	2.5	5.6	5.1	Refer Part B
30°	2.3	4.6	3.95	4.7	4.3	Refer Part B

**TABLE 3.4.6B PART B - MINIMUM WIDTH FOR ON STREET PARKING**

(Note: All dimensions are metres unless otherwise specified.)

PARKING CRITERIA						ONE LANE		TWO LANES	
Angle Deg	A M	D* m	M m	D+M	D+M-J m	L m	W m	L m	W m
0	2.3	2.3	3.0	5.3	2.8	3.5	6.3	7.0	9.8
30	2.5	4.5-4.9	2.9	7.4-7.8	4.9-5.3	3.5	8.4-8.8	7.0	11.9-12.3
45	2.5	5.1-5.6	3.7	8.8-9.3	6.3-6.8	3.5	9.8-10.3	7.0	13.3-13.8
60	2.5	5.3-6.0	4.6	9.9-10.6	7.4-8.1	3.5	10.9-11.6	7.0	14.4-15.1
90	2.5	4.8-5.4	5.8	10.6-11.2	8.1-8.7	3.5	11.6-12.2	7.0	15.1-15.7
One Way Traffic Volume (veh/hr) in lanes adjacent to parking						0-800		800-1600	
Note:* The smaller values of D provide for kerb overhang									
						<p>A = Space Width (See Table Part A)</p> <p>D = Effective depth and parking space (See Table Part A)</p> <p>M = Manoeuvre Space</p> <p>J = Allowable encroachment into adjacent traffic lanes: Assume 2.5m generally, reduced encroachment may be considered where traffic speeds are greater than 50 km/h.</p> <p>L = Width for traffic lanes</p> <p>W = Total Width required from kerbline to separation line or median.</p> <p>E = D+M (See Table Part A)</p>			

- Streets designated as bus routes complying with the requirements of the Rodney District Council standard details Drawing No: 10000/5.
- Cross-falls on street pavements in accordance with the Rodney District Council "Code of Subdivision - Engineering Standards for Subdivision and Development Standard Details".
- Longitudinal gradient not exceeding 12.5 per cent except on access and local streets which may have grades up to 16.5 per cent.
- All vehicle turning movements accommodated by utilising the following standards from AUSTROADS:
 - for turning movements involving principal or collector streets, the 'design semi-trailer' with turning path radius 12.5 metres;
 - for turning movements involving access streets or local streets the 'design single unit' truck with turning path radius 12.0 metres;
 - for turning movements at the head of access places, sufficient area for the 'design single unit' truck to make a three point turn.

Where driveway entrances are to be used for turning movements, the required area is to withstand the relevant loads.

- Turning radii at intersections or driveways on collector streets which accommodate the intended movements without allowing desired speeds to be exceeded.
- Separate entry and exit driveways 3.0 metres wide on trunk collector streets.
- Roundabouts designed according to AUSTROADS guidelines, including the provisions of adequate sight distances.

DISCRETIONARY ACTIVITY

For land within all Activity Areas:

Any situation in which the performance criteria are met but the controlled activity standard or any part thereof is not met.

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing any application for a discretionary activity:

The applicant shall show by way of engineering calculations, reports and drawings that any alternative method is as effective or more effective in achieving the design element objectives and performance criteria as the specified controlled activity standard.

3.4.7 STREET CONSTRUCTION

OBJECTIVES

- O1 To provide street pavement and edge that reinforce the street's function and amenity and in particular to use pavement materials that reinforce its residential function.
- O2 To construct streets of appropriate strength to enable the carriage of vehicles at a minimum total cost to the community.
- O3 To provide a pavement edge that is appropriate for the control of vehicle movements, performs any required drainage function and is structurally adequate.

PERFORMANCE CRITERIA

Pavement construction

- PC1 Street pavements to be of a design strength sufficient to carry wheel loads of travelling and parked vehicles and which enables the carriage of vehicles at a minimum total cost to the community over a 20 year period, including maintenance costs.
- PC2 Street pavement to be of design strength not to be damaged by construction or building equipment.
- PC3 Street pavement surfaces to be of design quality and durability to ensure the safe passage of vehicles, pedestrians, cyclists, and disabled persons, discharge of rainwater, the preservation of all weather access and maintenance of a reasonable, comfortable riding quality.

Pavement edge

- PC4 The pavement edge treatment to provide sufficient strength to prevent edge fretting.
- PC5 The pavement edge treatment in conjunction with the cross-sectional profile of the street reserve to perform the required drainage function.
- PC6 The pavement edge to clearly delineate to all street users the edge of the carriageway.
- PC7 The pavement edge treatment to provide the appropriate level of control for vehicles.
- PC8 The pavement edge treatment to allow ready access to abutting properties at the appropriate locations.

CONTROLLED ACTIVITY

The following are considered to meet the design element objectives and performance criteria:

Pavement construction

- Flexible pavement construction based on the "State Highway Pavement Design and Rehabilitation Manual" produced by Transit New Zealand; or
- Concrete pavement based on the "State Highway Pavement Design and Rehabilitation Manual" produced by Transit New Zealand; or
- Interlocking block pavement based on the ARRB interlocking block pavement design method.

Pavement edge

- The kerb type specified for each type of street in the Rodney District Council "Code of Subdivision - Engineering Standards for Subdivision and Development Standard Details".
- Kerb and channel profiles as specified in the Rodney District Council "Code of Subdivision - Engineering Standards for Subdivision and Development Standard Details".
- Pavement edge material of concrete or stone.

DISCRETIONARY ACTIVITY

For land within all Activity Areas:

Any situation in which the performance criteria are met but the controlled activity standard or any part thereof is not met.

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing any application for a discretionary activity:

The applicant shall show by way of engineering calculations, reports and drawings that any alternative method is as effective or more effective in achieving the design element objectives and performance criteria as the specified controlled activity standard.

3.4.8 UTILITIES PROVISION**OBJECTIVES**

- O1 To provide utility services to each lot in a timely, efficient and cost-effective manner.
- O2 To provide for cost effective operation, management and maintenance of the utility services for the full design life of the utility.
- O3 To provide a sewerage system which is adequate for the maintenance of public health and the disposal of effluent in an environmentally appropriate manner.
- O4 To provide a land drainage system to regulate natural runoff to the extent that the effect of stormwater on the environment, property and people is contained within acceptable limits, and that will reduce potential for damage in flood conditions and control erosion.
- O5 To provide an adequate, reliable, safe, efficient and potable water supply for urban development.
- O6 To provide street lighting to ensure safety of pedestrians, cyclists and vehicles.
- O7 To provide clear accurate as built information regarding all utilities in a development.
- O8 To provide adequate power, telecommunications and where available gas reticulation for urban development.

PERFORMANCE CRITERIA

- PC1 The design and provision of utility services, including sewerage, storm drainage, water, electricity, street lighting, telephone and gas services to conform to the cost performance measures of the relevant servicing authorities.
- PC2 The following criteria to apply in the design and provision of any **sewerage system:**

2.1 DESIGN**(a) Design Life**

The system shall be designed for a minimum life of 80 years.

(b) Design Flows

The sanitary drainage system shall be designed to serve the whole of the natural upstream catchment area. The flow from all portions of the upper

catchment within the urban boundary shall be calculated assuming complete urbanisation.

Flows are to be calculated from historical flow data for developments similar to those proposed within the catchment.

When the above information is not available, the following may be used as a design basis:

- (i) Domestic sewage flows may be calculated on the basis of an average dry weather flow of 200 litres per day per person, with the population figures based on the Council's most recent population forecasts. A minimum peaking factor of 5 is required.
- (ii) Light water use industries, 0.4 litres/second/hectare gross area.
- (iii) Medium water use industries, 0.7 litres/second/hectare gross area.
- (iv) Consumers of large volumes of water, 1.3 litres/second/hectare. Unless the long term future occupancy of the land is known with certainty, a minimum design flow of 0.6 litres/second/hectare shall be used.

(c) **Hydraulic Design**

The hydraulic design of sanitary sewer pipelines shall be based on Hydraulics Research Paper No. 4 **Tables for the hydraulic design of stormwater drains, sewers and pipelines** or on graphs or other representation of the same method.

The pipe roughness coefficients used in the design shall be those commonly adopted for modern engineering design practice as representing the condition of the pipeline approximately 10 years after construction.

The flow velocity in the pipeline when flowing full shall exceed the scour velocity for the type of sewage waste being

transported. If detailed data on waste type is not available, a minimum velocity of 0.75m/second and a minimum diameter of 150 mm shall apply for gravity lines and a minimum velocity of 1.0m/sec and a minimum diameter of 100 mm for rising mains. If detailed data on waste type is available pipe diameters and flow velocities are to be such as to allow the passage of solid wastes through the system without blocking.

(d) **Location of Pipelines**

Sanitary drainage lines shall be sited in accordance with the normal pattern within the area.

Sanitary sewerage pipelines following the street alignment shall not normally be laid within the street.

Where the line is designed through the sites, it is to be located such that it will not reduce the building area available. Manhole structures are to be located such that boundary fences cannot be constructed over the top.

(e) **Connections**

Each site on the subdivision shall be served by a sanitary sewer connection located within the body of the site. Each connection shall be capable of serving the whole building area of the site by gravity from a ground level discharge.

Where the sanitary sewer line is outside the body of the site to be served by it, a connection line shall be provided to the site from the nearest manhole or by a connection not more than 6.0 m long from the sewer with the connection end at least 1 metre within the property. The connection is to be a maximum depth of not more than 1.2 metres and is to be located so that it will not be built over when buildings are erected in accordance with the controls specified in Rule 3.6.

Connections are to be located, marked and recorded such that they can be easily and quickly located by a drainlayer either by hand digging or the use of a small excavator.

(f) **Access for maintenance**

The sewer line shall be designed to allow ready access to all parts of the system for men and maintenance machinery after development has been completed on the sites.

(g) **Pump Stations**

Sewage pump stations shall be designed to have all the following:

- sufficient duty pumping capacity to handle the design peak flow rate;
- at least one stand by pump equal in capacity to the largest duty pump;
- wet well storage volume sufficient to limit the frequency of pump starts to not more than fifteen per hour at maximum flow conditions;
- standby storage volume of a minimum capacity of 4 hours calculated from the pump start level to overflow level and the peak 4 hour design flow rate;
- electrical systems to provide for automatic switching of duty pumps, and protection of all electrical equipment;
- all weather access for service vehicles;
- equipment for the lifting and removal of pumps;
- water supply for the washing of the wet well and storage well;
- overflow protection to prevent the discharge of rags, paper, debris.

2.2 PIPE MATERIALS

Ceramic, concrete, PVC, vitrified clay, concrete lined mild steel, cast iron, or HDPE pipes may be used. The wall thickness is to be such as to allow for a sacrificial loss over the design life of the system with the pipe still remaining operational without distortion or water loss.

All materials used shall conform with the relevant New Zealand standard. If such a standard does not exist, the appropriate Australian or British standard shall be used.

Pipe lines are to be designed in accordance with the pipe Manufacturer's recommendations and requirements, and modern engineering design practice.

2.3 CONSTRUCTION

The pipelines are to be constructed in accordance with the Manufacturer's requirements and recommendations, and modern engineering practice.

2.4 TREATMENT

Where the sewer network is to discharge to other than an existing Local Authority system, a sewage treatment plant shall be provided to treat and dispose of the sewage in accordance with conditions laid down by the Auckland Regional Council. The developer shall be responsible for the application and the obtaining of all necessary discharge permits and other approvals for the treatment disposal system.

PC3 The following criteria to apply in the design and provision of any **storm drainage** system:

3.1 DESIGN

(a) Design life

The system shall be designed for a minimum life of 80 years.

(b) Design flows

The drainage system shall be designed to serve the whole of the natural upstream catchment area and with due regard to the effect it may have on the downstream system. The flow from all portions of the upper catchment within the urban boundary shall be calculated assuming complete urbanisation.

Pipelines and stream channels are to be sized using flows calculated from historical rainfall and run off data for developments similar to those proposed within the catchment, using an AEP sufficient to give protection against flooding appropriate to the land use proposed. For roads, public accessways and reserves a minimum of 10% AEP is required. For residential development an AEP of 1% is required.

(c) Hydraulic Design

The hydraulic design of pipelines shall be based on Hydraulics Research Paper No. 4 **Tables for the hydraulic design of stormwater drains, sewers and pipelines** or on graphs or other representation of the same method.

The pipe roughness coefficients used in the design shall be those commonly adopted for modern engineering design practice as representing the condition of the pipeline approximately 10 years after construction.

The hydraulic design of open channels shall be based on the Manning Formula with roughness coefficients as commonly adopted for modern

engineering design practice as representing the condition of the channel approximately 10 years after construction.

(d) **Location of Pipelines**

Drainage lines shall be sited in accordance with the normal pattern within the area.

Drainage pipelines following the street alignment shall not normally be laid within the street reserve.

Where the line is designed through the sites, it is to be located such that it will not reduce the building area available. Manhole structures are to be located such that boundary fences cannot be constructed over the top.

(e) **Location of secondary flow paths**

Secondary flow paths for a 1% AEP flood are to be provided and located to reduce the potential for damage in flood conditions, away from buildings and areas of potential restriction by fences or property development. If through non-public land, overland flow paths are to be protected by appropriate easements and consent notices.

(f) **Connections**

Each site on the subdivision shall be served by a drainage connection located within the body of the site. Each connection shall be capable of serving the whole area of the site by gravity from a ground level discharge.

Where the drainage line is outside the body of the site to be served by it, a connection line shall be provided to the site from the nearest manhole or by a connection not more than 6 metres long from the drainage line with the connection end at least 1 metre within the site. The connection is to be a maximum depth of no more than 1.2 metres and it is to be located so that it will not be built over when buildings are erected

in accordance with the controls specified in Rule 3.6.

Connections are to be located, marked, and recorded such that they can be easily and quickly located by a Drain layer either by hand digging or the use of a small excavator.

(g) **Access for maintenance**

The drainage lines shall be designed to allow ready access to all parts of the system for men and maintenance machinery after development has been completed on the site.

3.2 PIPE MATERIALS

Ceramic, concrete, PVC, vitrified clay, concrete lined mild steel, cast iron, or HDPE pipes may be used. The wall thickness is to be such as to allow for a sacrificial loss over the design life of the system with the pipe still remaining operational without distortion or water loss.

Pipe lines are to be designed in accordance with the pipe Manufacturer's recommendations and requirements, and modern engineering design practice.

3.3 CONSTRUCTION

The pipelines are to be constructed in accordance with the Manufacturer's requirements and recommendations, and modern engineering practice.

3.4 STORMWATER DISCHARGE

Where the drainage network is to discharge to other than an existing Local Authority piped system, erosion control measures are to be provided at the point of discharge. The developer shall be responsible for the obtaining of all necessary water permits and other approvals for the discharge.

Water Supply and Reticulation

PC4 In relation to water supply, where a public supply is available within reasonable distance of the development, this shall be used as the source of supply to the development.

Isolated small subdivisions in a rural setting may be designed to be served by rain water storage tanks, or by individual privately owned bores.

For new urban developments in areas where a publicly owned supply is not available, a community water supply is to be provided as part of the development.

PC5 The following criteria to apply in the design and provision of any

water supply and reticulation

 system:

The following criteria apply in the design and provision of any water supply and reticulation system:

4.1 DESIGN

(a) **Design Life**

The system shall be designed for a minimum life of 80 years.

(b) **Design Flows**

The water reticulation system is to be designed to provide a supply adequate for fire fighting purposes and for estimated domestic, commercial and industrial consumption throughout the development.

Flows and pressures are to be calculated from historical data for developments similar to those proposed.

When the above information is not available, the following may be used as a design basis:

- (i) The minimum fire fighting residual running water pressure shall be 100 kPa at any hydrant.
- (ii) The minimum working residual water pressure shall be 300 kPa at ground level at any normal house lot.
- (iii) The domestic consumption may be calculated on 200 litres per head per day, with the population figures based on the Council's

most recent population forecast, and a peak flow rate of five times the average flow rate.

- (iv) The water demand for commercial and industrial areas, including fire fighting flows, shall be analysed and specifically allowed for in the design.
- (v) Fire fighting flows shall be determined from the Fire Services Code of Practice 1965 and amendments.
- (vi) The fire risk classifications shall be:
 - Detached or semi-detached housing in suburban areas, Class E
 - Schools, local suburban shopping areas and equivalent, Class D
 - Suburban industrial areas, Class C
- (vii) The minimum standard of water supply for fire fighting shall be:
 - Class E 25 litres per second
 - Class D 50 litres per second
 - Class C 100 litres per second

all with a minimum residual pressure of 100 kPa, assuming the flow is from one hydrant or a group of hydrants within 270 metres of the fire risk.
- (viii) Hydraulic design.

The hydraulic design shall be based on a system network analysis, with pipe friction coefficients being those commonly adopted for modern engineering design practice as representing the condition of the pipeline approximately 10 years after construction.
- (ix) Location of pipelines.

The water mains shall be located within the street reserve, and shall conform to the established local practice as agreed between the Council and the various service authorities, and as prescribed by the Council.
- (x) Connections.

Each site and/or dwelling unit shall be served by a water supply connection

terminating with a female gate valve 300mm outside the property boundary.

The diameter of the connection from the main is to be such as not to cause significant head loss between the main and the gate valve, or to cause the pressure at the gate valve to fall below 300 kPa at times of peak flow.

(xi) Fire hydrants.

Hydrants are to be of a pattern standard to the area, protected and identified to allow ready access by fire fighting personnel and their equipment.

Hydrants are to be provided at regular intervals along the street and located such that the required fire fighting flow rate can be delivered to the rear portion of any site in the development.

(xii) Valves.

The water supply network is to be subdivided into discrete parts by valving such that individual sections of the system may be closed down for maintenance while a supply is maintained to the balance. The sections of the system are to be designed to minimise the number of consumers affected during any such shut down.

4.2 MATERIALS

All pipes, valves, hydrants and fittings shall be of types and makes and diameters that are commonly used within the District.

Steel, PVC, HDPE and cast iron pipes may be used, with steel, cast iron or brass fittings.

4.3 CONSTRUCTION

The pipelines are to be constructed in accordance with the Manufacturer's requirements and recommendations, and modern engineering practice.

4.4 WATER TREATMENT

Where a development proposes to provide a water supply source, the method of treatment shall be specifically designed to deal with the quality of the raw water being extracted and the standards required for a public water supply system. The developer shall be responsible for the obtaining of all necessary water permits and other approvals required.

CONTROLLED ACTIVITY

The following are considered to meet the design element objectives and performance criteria:

Sewerage

- Sewage disposal and sewerage networks and facilities conforming to the Rodney District Council "Code of subdivision - Engineering Standards for Subdivisions and Developments, Standard Details".

Storm Drainage

- Storm Drainage systems and networks conforming to Rodney District Council "Code of subdivision Engineering Standards for Subdivisions and Developments, standard Details" and;

In accordance with the design flows in the adopted Catchment Management Plan for the catchment where available, or where such plan has not been prepared, the Auckland Regional Council Technical publication number 19 Guidelines for the Estimation of Floodflows in the Auckland Region or the IPENZ procedure for hydrological design of urban stormwater systems and Technical Memorandum No. 61 for rural catchments up to 25 km².

Water

- Water Supply systems conforming to the Rodney District Council "Code of Subdivisions - Engineering Standards for Subdivisions and Developments, Standard details".

Electricity

- Designed by a *qualified person* in accordance with the requirements of the relevant electricity supply agency.

Telecommunications

- Designed in accordance with service agency requirements.

Gas

- Designed by a *qualified person* in accordance with the requirements of the relevant gas supply agency.

Street lighting

- Street lighting designed in accordance with NZ Standard.

DISCRETIONARY ACTIVITY

For land within all Activity Areas:

Any situation in which the performance criteria are met but the controlled activity standard or any part thereof is not met, in terms of the following matters:

- Sewerage
- Storm drainage
- Water

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing any application for a discretionary activity:

The applicant shall show by way of engineering calculations, reports and drawings that any alternative method is as effective or more effective in achieving the design element objectives and performance criteria as the specified controlled activity standard.

3.5 DEVELOPMENT IMPACT FEES

Note: Financial contributions towards infrastructure upgrading off the site including reserve contributions for other than neighbourhood reserves shall continue to be taken as provided for under the transitional provisions of the Resource Management Act 1991.

DEVELOPMENT CONTROLS

3.6 **BUILDING/DEVELOPMENT CONTROLS**

3.6.1 **BUILDING SITING AND DESIGN**

OBJECTIVES

- O1 To site buildings to meet projected user requirements for privacy and daylighting.
- O2 To ensure scale, *height* and length of a building and walls relative to side and rear boundaries are of appropriate residential character.

PERFORMANCE CRITERIA

Daylight and sunlight

- PC1 *Habitable rooms* to be capable of receiving sufficient daylight to enable normal household activities to be undertaken without the need for artificial lighting.
- PC2 Where practicable household units to be sited so that the northern facade of the household unit will receive the maximum amount of sunshine in winter.

Privacy

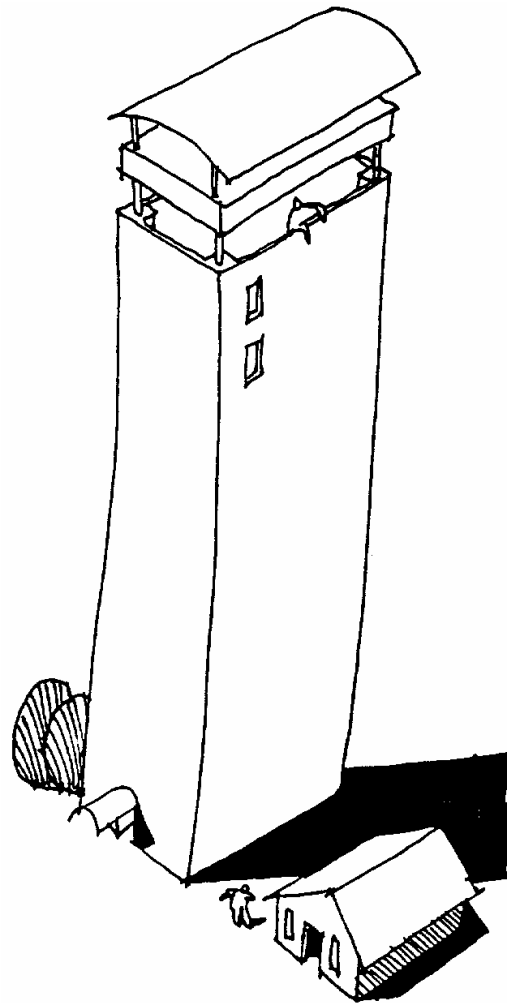
- PC3 Household units and outdoor spaces to be sited so that privacy of the household unit and that of adjoining and adjacent units is protected taking into account the intensity of residential activity in the area and local community expectations.

Building height and wall length

- PC4 Household unit and accessory building walls and roofs to be sited and be of such length and *height* to ensure no significant loss of visual and character amenity to adjacent household units and land.

Siting of Public or Common Private Utilities

- PC5 The siting of household units and accessory buildings so that they do not restrict or prevent the siting of, and subsequent access to public or common private utilities.



- PC3 Privacy of dwellings and outdoor spaces to be protected. An example of a non complying situation.

Site Coverage

PC6 Household units and accessory buildings to be of an appropriate scale to ensure areas of open space are available on the site for household requirements, residential amenity, and to limit the rate and volume of surface water runoff into the stormwater drainage system.

DEEMED TO COMPLY

The following are considered to meet the design element objectives and performance criteria:

Daylight and Privacy

For land in all Activity Areas

- Household units sited in compliance with the following standards of the Building Code in terms of the location of *windows*:
 - to face a court or other outdoor space to the sky or an open verandah, open carport or the like; and
 - not less than a horizontal distance of 1.2 metres from any boundary of an adjoining site or wall of an adjoining building that they face.

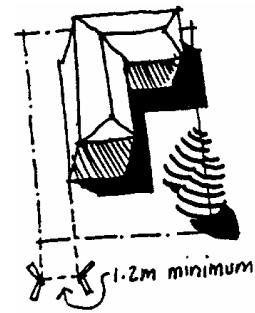
In Addition:

For land in the Medium and High Intensity Activity Areas

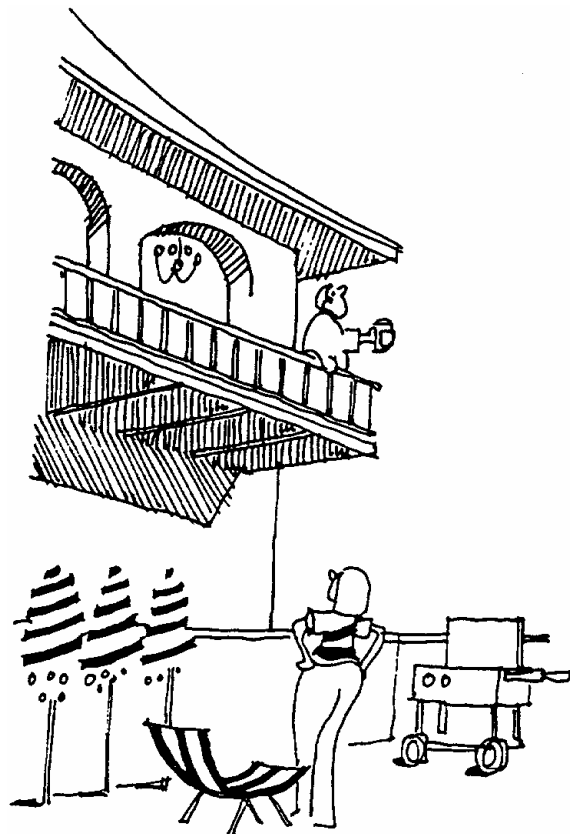
- Any two or three *storey* household unit to be sited to ensure any *balcony* or habitable room window does not *directly overlook* habitable room windows or private open space areas of any adjacent household unit on the same site. Where an upper *storey* window does cause such overlooking, such a window is to be infilled with translucent or opaque materials or have a window sill a minimum of 1.5 metres above the upper floor level.

Daylight and Privacy for Multiple Household Unit Developments

(Within a site at the time of resource consent or building consent whichever is the earlier.)



Windows located not less than a horizontal distance of 1.2 metres from boundary of an adjoining site.



Non-complying situation - balcony overlooking private open space of adjoining household unit.

For Land in All Activity Areas:

Provisions as for the above except for the following additional setbacks. These setbacks do not apply between windows and balconies of the same household unit:

- Habitable room window to habitable room window and balcony to habitable room window (this does not apply to windows/balconies separated by an angle of 90° or more in plan_or elevation):
 - 8.5 metres; or
- Balcony or habitable room to a visual screen such as a fence extension;
 - 3.0 metres
- Habitable room window to common property or common driveway;
 - 3.0 metres



Height to boundary control - 3 metres plus the shortest horizontal distance between that part of the building and any site boundary i.e. 3 metres plus a line at 45°.

HeightFor Land in All Activity Areas:

Buildings to have a maximum *height* of 9 metres, and to comply with the following:

No part of any building shall exceed a height equal to 3 metres plus the shortest horizontal distance between that part of the building and any site boundary, provided that where a site in a New Urban area (see definition of New Urban in Section 20) has a common boundary with land zoned commercial or industrial, or where a site has a common boundary with a road or street, this height in relation to boundary control shall not apply to the common boundary.

Yards (setbacks)For Land in All Activity Areas:

- Front Yard Refer to Rule 3.6.3 Streetscape
- Rear Yard 3 metres
- Side Yard 1.2 metres
- Shoreline Yard 20 metres#

Provided that for sites at Waiwera the yard shall be 3 metres, and for part allotment 10 CT 771/230 at Stillwater, the yard shall be 10 metres.

In addition:

For Land in Low Intensity Activity Areas Only

- Coastal Protection Yard 50 metres *

* Provided that this requirement shall not apply to Pt Allotments 28 and 241 Parish of Waiwera, CT 18B/860 and Lots 1 and 2 DP 81231 CT 37D/628 and CT 37D/62, Arkles Bay, Whangaparaoa.

Allowable Encroachments into Yards (setbacks)

- The buildings of any household unit including accessory buildings may be erected:
 - (i) In the **New Urban*** area up to or on two side and/or the rear boundary, or
 - (ii) in the **established**# area up to or on a single side and/or the rear boundary,

where:

- the written consent of the adjoining owner(s) is obtained (and it accompanies any building consent application); and
- the maximum length of building on any one boundary is 50% of the boundary length or 15 metres whichever is the lesser; and
- the building will not be sited over any public or common private utility or network; and
- the building will not be sited within any stormwater secondary flow path.

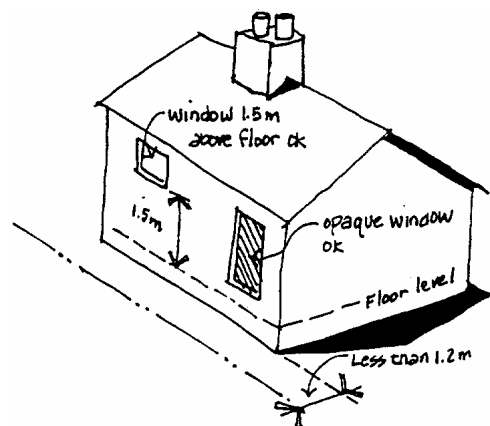
Walls closer than 1.2 metres to the boundary must not contain any openings unless they comply with the fire resistance levels of the building code and windows facing the boundary are infilled with translucent or opaque materials or have a window sill a minimum of 1.5 metres above each respective floor level. Roof lighting and ventilation are exempt from this requirement.

* See definition of **New Urban** in Section 20.

See definition of **established** in Section 20.



Buildings may be erected up to or on two side boundaries and/or the rear boundary where certain requirements are met.



Buildings closer than 1.2 metres to boundary to have windows and translucent or opaque materials or sills of 1.5 m above floor level.

- Decks, unroofed terraces, landings, steps or ramps with a maximum height of 0.3 metres may be sited within any yard, except the shoreline or Coastal Protection Yard provided that they do not in themselves prevent vehicular access to a complying parking space.
- Fascia, gutters, downpipes, and eaves; masonry chimney backs, flues, pipes, domestic fuel tanks, cooling or heating appliances or other services; light fittings, electricity or gas meters, aerials or antennae, pergolas or sun blinds, and
may encroach into any yard by not more than 0.3 metres.

Site Coverage

For Land in Low Intensity Activity Areas

- No maximum.

For Land in Medium Intensity Activity Areas

- Maximum 40% in areas other than the Township Policy area.
- Maximum 30% in the Township Policy area.

For Land in High Intensity Activity Areas

- Maximum 50%.

DISCRETIONARY ACTIVITY

For Land in All Activity Areas:

Any situation in which the performance criteria are met and where any or all of the following deemed to comply standards are not met.

- Daylight and privacy.
- Daylight and privacy for multiple household unit developments.
- Height in relation to boundary.
- Site coverage.
- Allowable encroachments into yards: for the **New Urban*** area in terms of siting a building over a public or common private utility or network, for the **established**# area, any encroachment.

* See definition of New Urban in Section 20.

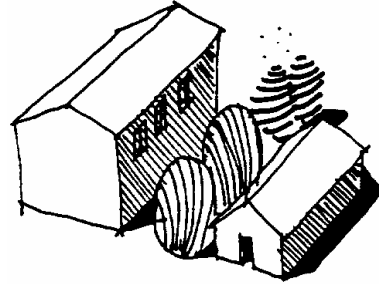
See definition of established in Section 20.

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing an application for a discretionary activity of the following type:

Daylight and Privacy

- For daylighting the level of daylight should be sufficient to enable normal household activities to be undertaken without the need to use artificial lighting during daylight hours.
- For privacy the Council will assess the extent of overlooking that occurs and the effectiveness of alternative means of reducing overlooking such as the use of screens or trellising on balconies or the shape and height of windows.



Use of trees/vegetation for screening.

Daylighting and Privacy for Multiple Household Unit Developments

- As for daylighting and privacy above, and in addition in relation to setbacks, the extent to which window placement and design, including height above floor level, and the use of trees/vegetation for screening prevents direct visual contact between habitable room windows of separate household units or habitable room windows and common property or driveway.

Height in Relation to Boundary

- The bulk and shape of the building should generally remain in character with the buildings in the Neighbourhood, and should enable the existing character of the streetscape to be retained and should not result in overbearing of adjoining sites.

Allowable Encroachments Into Yards

- The effect on adjoining properties in terms of:
 - shading of any dwelling living area or accessory building;
 - loss of or reduction in visual and/or aural privacy;
 - visual impact;
 - change in the residential character of the area.

Should not be appreciably different from a fully complying development.

Siting of a Building Over a Public or Common Private Utility or Network.

- *The advice of the utility operator will be sought in relation to any application. The encroachment should not affect the safe and efficient running of any utility network or part of any network and should ensure that reasonable means of access is available for inspection and maintenance of the utility, at no additional expense than would normally be the case.*

Site Coverage

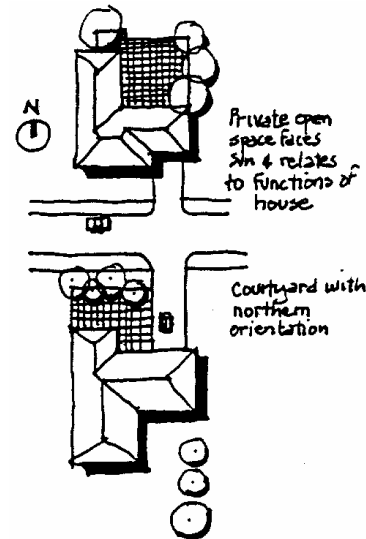
- *The extent to which the additional coverage of the site affects the residential scale and character of a site and surrounding area, and the effect on overall residential amenities and the stormwater drainage system including receiving waters.*

3.6.2 **PRIVATE OPEN SPACE****OBJECTIVE**

- O1 To provide private open space to each household unit to meet our requirements for outdoor activities and use.

PERFORMANCE CRITERIA

- PC1 *Private open space* areas to be of dimensions to suit the projected requirements of the household unit occupants and to accommodate both outdoor recreation needs as well as providing space for service functions such as clothes drying and domestic storage.
- PC2 Part of the *private open space* to be capable of enabling an extension of the function of the household unit for relaxation, dining, entertainment, recreation and children's play, and be directly accessible from the dwelling.
- PC3 Location of *private open space* to take account of outlook, natural features of the site and neighbouring buildings or open space.
- PC4 Orientation of *private open space* to provide for maximum year round use, and shall be located so as to receive a minimum of 4 hours sunshine on any day of the year.



PC1 Private open space to suit projected requirements of the household units.

DEEMED TO COMPLYFor Land in All Activity Areas:

- The useable private open space to be a minimum of 80 square metres in area for each household unit on a site and where:
 - the private open space is located so as to receive a minimum of four hours direct sunshine on any day of the year;
 - the minimum dimensions of *private open space* is 2.5 metres;
 - the private open space is capable of containing a rectangle of 4 metres by 6 metres not steeper than 1 in 8 (12.5%) and is directly accessible from the main living room of the household unit.

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- private open space is located or screened to minimise direct overlooking from outside the boundaries of the site except in the case of reserves.

DISCRETIONARY ACTIVITY

For Land in All Activity Areas:

Any situation in which the Performance Criteria are met and where any or all of the following deemed to comply standards are not met.

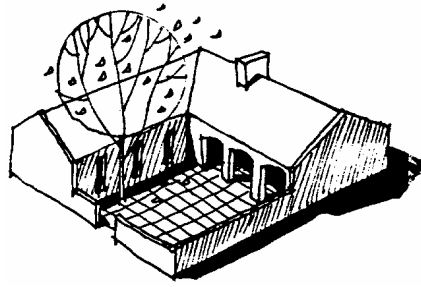
- The location of the private open space on the northern side of the household unit.
- The steepness of the land forming private open space.

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing any application made in terms of:

Private Open Space

- *The location of the private open space in relation to north, and the household unit(s) and significant features affecting sunlight e.g. fences, trees on the site.*
- *The proportion of the private open space area that does receive sunlight for at least 1 hour during midwinter, and the ease with which this area can be used for recreation and accessed from the household unit.*
- *The extent to which the location and design of the household unit and windows allow for inhabitants access to the sunlight inside the household unit.*
- *Where any application relates to the steepness of the land, the effect this has on the ability of the land to be used for both active and passive recreation.*



Private open space located or screened to minimise direct overlooking.

3.6.3 **STREETSCAPE****OBJECTIVE**

- O1 To provide attractive streetscapes which reinforce the functions of a street and enhance the amenity of dwellings.

PERFORMANCE CRITERIA

PC1 Residential development to provide an attractive streetscape setting with opportunities for landscaping and varying setbacks of residential buildings.

PC2 The streetscape to reflect the functions and characteristics of the street type in the network and incorporate a landscape approach which satisfies safety and maintenance requirements, enhances pedestrian quality, and the requirements for the placement of utility services in particular in relation to utility services the siting of household units and accessory buildings so that they do not restrict or prevent the siting of, and subsequent access to, public or common private utilities.

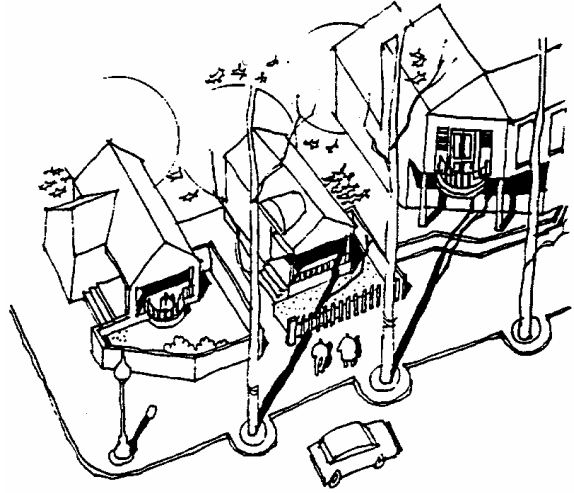
PC3 Development in built-up areas to complement existing attractive streetscapes of which it will be a part.

PC4 The streetscape to be considered as an entity, embodying the performance criteria for the elements of site size and orientation and access.

PC5 Garages and carport locations to be arranged so that they do not dominate the streetscape.

PC6 Landscaping to:

- complement the function of the street;
- incorporate existing significant vegetation wherever possible;
- be of an appropriate scale;
- be sensitive to site attributes such as streetscape character, land capability, microclimate, views and vistas.



PC2 Streetscape to reflect the functions and characteristics of the street type and to incorporate a landscape approach.

DEEMED TO COMPLY

For New Urban * areasFor Land in the Medium and High Intensity Activity Areas:

- Front Yard as follows:

The buildings of any household unit including accessory buildings except any household unit on a site with frontage to Centreway Road between West Hoe Road and Riverside Road, and Red Beach Road between State Highway 1 and Whangaparaoa Road may be erected up to or on the front boundary provided that:

- the maximum length of building on or within 3 metres of the boundary is 50% of the boundary length.; and
- Where any part of the building is on or within 3 metres of the boundary the owner provides at least two suitable trees to the Council at least 3 metres in height for planting in the street in the vicinity of the site; and
- the building siting does not cause vehicles to block existing or planned footpaths; and
- the building will not be sited over any public or common private utility or network.

For the remaining length of the front boundary and in all other instances the yard is 3 metres.

For Land in the Low Intensity Activity Areas:

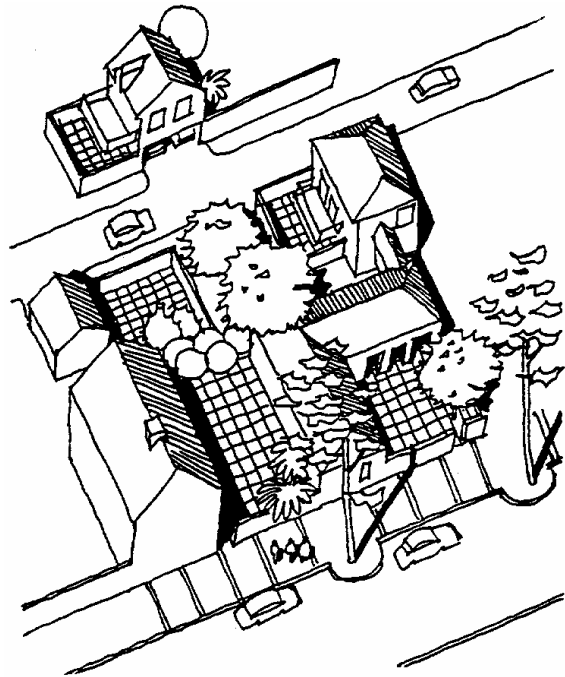
- Front yard 6 metres

Provided that buildings may be located up to within 3 metres of the front boundary where:

- The written consent of adjoining and directly adjacent landowners (including the road controlling authority) has been obtained; and
- Any building(s) cover a maximum of 25% of the area of the yard; and
- Parts of buildings located closer than 6 metres of the front boundary are a maximum of 4 metres in height.

And provided further that building siting does not cause vehicles to block existing or planned footpaths, and the building will not be sited over any public or common private utility or network.

* See definition of New Urban in Section 20.



Buildings may be erected up to or on the front boundary where certain requirements are met.

For Established[#] areasFor Land in All Activity Areas:

- Front Yard 6 metres

provided that the buildings of any household unit including accessory buildings except any household unit on a site with frontage to Centreway Road between West Hoe Road and Riverside Road, and Red Beach Road between State Highway 1 and Whangaparaoa Road may be located up to within 3 metres of the front boundary where:

- The written consent of adjoining and directly adjacent landowners (including the road controlling authority) has been obtained; and
- Any building(s) cover a maximum of 25% of the area of the yard; and
- Parts of buildings located closer than 6 metres of the front boundary are a maximum of 4 metres in height.
- Building siting does not cause vehicles to block existing or planned footpaths.
- The building will not be sited over any public or common private utility or network.

(See also 3.6.1 Yards (Setbacks).)

DISCRETIONARY ACTIVITY

For New Urban^{*} areasFor Land in the Medium and High Intensity Activity Areas:

Any situation in which the performance criteria are met and where any or all of the following deemed to comply standards are not met.

- The 50% of front boundary **length** limitation on building within 3 metres of the front boundary.

For Established[#] areas

Any situation in which the performance criteria are met and where any or all of the deemed to comply standards are not met.

* See definition of New Urban in Section 20.

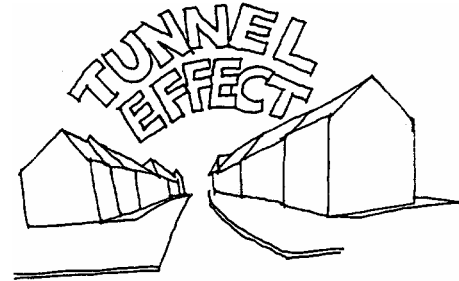
See definition of Established in Section 20.

ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing any application made in terms of:

Front Yard

- The height, shape and bulk of the building should not detract from the existing established streetscape by creating a visual "tunnel" effect, or by substantially blocking views of significant natural features.
- Any encroachment should not result in a building which is visually out of character with the neighbourhood in general.
- Any encroachment does not detrimentally affect the ability to establish street trees.
- Any encroachment should not affect the safe and efficient running of any utility network or part of any network, and should ensure that reasonable means of access is available for inspection and maintenance of the utility at no additional expense than would normally be the case.



Tunnel effect to be avoided.

3.6.4 **NEIGHBOURHOOD RESERVE CONTRIBUTIONS - DEVELOPMENT**

OBJECTIVES

- O1 To ensure that neighbourhood reserves of appropriate quality and quantity are provided in convenient locations to meet the needs of the community.
- O2 Natural and cultural features should be used wherever possible as a basis for the location of neighbourhood reserves.
- O3 To ensure that the increased demand placed upon the established neighbourhood reserve network as a result of additional dwellings is ameliorated.
- O4 To recognise that in the low intensity residential activity area, the activities normally associated with neighbourhood reserves can be accommodated within the individual sites.



- O1 Neighbourhood reserves of appropriate quality and quantity provided in convenient locations.

PERFORMANCE CRITERIA

- PC1 Neighbourhood reserves should be provided having considered:

The potential to improve the quality of neighbourhood reserves in the vicinity for structured and unstructured activities.

The size of the population that will be served by the neighbourhood reserve.

The presence of other neighbourhood reserves in the vicinity (e.g land adjoining or nearby to existing neighbourhood reserves may obviate the need to provide additional land, in which case a cash contribution shall be required).

- PC2 A neighbourhood reserve should be consistent with and/or complimentary to the adopted Neighbourhood Reserve Strategy.

DEEMED TO COMPLY

For Land in the Low Intensity Activity Areas

No neighbourhood reserve contribution shall be required.

For land in the Medium and High Intensity Activity Area

Additional Household Units (excludes Minor Household Units)

- A neighbourhood reserve cash contribution equivalent to the land value of 30m² of the site shall be required for the second and each subsequent household unit on a site and shall be calculated by a registered valuer.

For the purposes of calculating the value of 30 m² it shall be assumed that each additional household unit is (or will be) on its own site.

The value of 30 m² shall then be determined as the average value of 30 m² of all additional (hypothetical) residential sites.

3.7 CONSERVATION OF LANDSCAPE**OBJECTIVE**

- O1 To protect and enhance those features of the natural environment that contribute significantly to the amenities of the residential areas of the district as a whole, and which assist in preventing land instability and erosion.



- O1 Protection and enhancement of those features of natural environment contributing to amenity.

PERFORMANCE CRITERIA

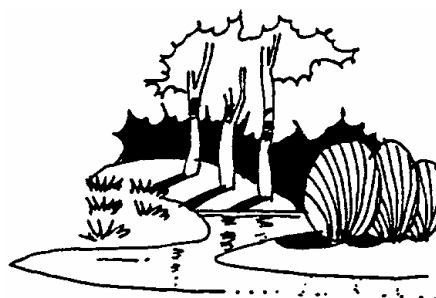
- PC1 In the low intensity activity areas the retention of a high proportion of trees and bush.

- PC2 In the low intensity activity areas the protection of a wider scope of trees and bush than in other activity areas.

- PC3 In all activity areas the retention of trees which contribute significantly to the amenities of the locality and which enhance the character of the area, and the retention of trees and/or other vegetation and plant communities with significant ecological and habitat value.

- PC4 Earthworks, excavation and the removal of topsoil to be kept to the minimum necessary for residential purposes.

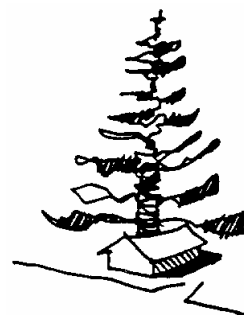
- PC5 The retention of existing landforms which are significantly in amenity terms and the use of these as the basis of site development and building design.



- PC6 The retention of watercourses in their natural state where they contribute to the amenities of a locality and/or where they have significant ecological or habitat value except where control works are warranted in the public interest.

- PC6 The retention of watercourses in their natural state.

- PC7 The provision of opportunity for limited maintenance and trimming of trees and the removal/trimming of dead, damaged, or diseased trees, and trees planted as forest.



- PC8 The recognition that some exotic tree species are generally inappropriate on conventional medium/high density size sites, and that in these instances should be excluded from "general protection" rules.

- PC7 Recognition that some species are inappropriate on conventional intensity residential sites.

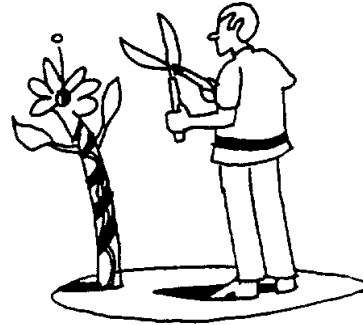
- PC9 Protection of specific specimens of trees that are important for biological, scientific and/or amenity reasons, but which would not otherwise be protected, to be protected through the operation of the provisions of the Conservation and Environment Section (Section 15) of the District Plan.

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DEEMED TO COMPLY

For land in all activity areas:

- Any regular trimming or maintenance effected with short handled hand operated secateurs.
- The treatment or removal of dead damaged or diseased trees, or other work immediately necessary to avoid damage to the life, health or property of the owners of the site on which the tree is located or any adjacent site.
- The actions of any statutory authority to carry out work authorised by any statutory provision.
- The operation of any statute or delegated legislation which may conflict with the part of the District Plan or to which this part of the District Plan is subordinate.
- The alteration or removal of the following plants or trees:
 - (i) Acacia species:
All species except Acacia Melonoxylon (Tasmanian Blackwood)
 - (ii) Eucalyptus Cinera:
Silver Dollar Gum
 - (iii) Eugenia Smithii:
Acmena or Lillypilly
 - (iv) Ligustrum species:
Privet
 - (v) Any plant or tree listed as a noxious weed under the Noxious Plants Act 1978 or any Act in substitution therefore.
 - (vi) Any plants or trees planted as shelter belts or for the purpose of harvesting their fruits.
- The alteration or removal of the following plants or trees on sites of less than 1013 m² in area regardless of height (refer to Appendix 15B in Section 15 to identify individual protected specimens):
 - (i) *Cupressocyparis Leylandii*
Leyland cypress



Use of short handled hand operated secateurs is deemed to comply.

- (ii) *Cupressus lusitarvica* var *benthamii*
Bentham cypress
- (iii) *C. macrocarpa*
Macrocarpa
- (iv) All *Eucalyptus* spp except:
 - E. ficifolia* (red flowering gum)
 - E. leucoxyton* ('Rosa') (pink flowering gum)
 - E. nicolii* (peppermint gum)
 - E. perrineana* (round leaf snow Gum or spinning gum)
 - E. sideroxyton* ('Rosa') (pink flowering iron bark)
- (v) *Erythrina sykesii* (Indian coral tree - often incorrectly referred to as 'flame tree')
- (vi) *Grevillea robusta* (silky oak)
- (vii) *Pinus radiata*
 - P. pinaster* (maritime or pinaster tree) and
 - P. sylvestris* (Scotch pine)
- (viii) All *populus* spp except *P. yunnanensis* (Chinese poplar)
- (ix) All *salix* spp except *S. humboldtiana* (pencil willow)
- Earthworks being an integral part of a subdivision for which a resource consent for the subdivision of that land has been granted by the Council.

For land in the low intensity activity area:

- Cutting or removal of individual trees up to 3 metres in height.

For land in the medium and high intensity activity areas:

- The cutting or removal of any tree up to 6 metres in height, except any pohutukawa tree (*Metrosideros* spp) within 200 metres of mean high water springs in which case the cutting or removal of any pohutukawa tree up to 3 metres in height.

- The cutting or removal of areas of bush up to 6 metres in height.
- The excavation or depositing of up to 200 m³ of spoil, soil or other materials.
- The management and harvesting of forests planted for that purpose including the formation of forestry roads.



The management and harvesting of forests planted for that purpose.

DISCRETIONARY ACTIVITIES

In the consideration of an application for consent to a discretionary activity listed below, the Council shall limit its discretion to matters relating to: Amenity; Rarity and Endangerment of a species; Wildlife or Habitat Value, Water and Soil Conservation and Health and Safety of residents and property; and the Council may consider an application without the need to obtain the written approval of affected persons.

For land in the low intensity activity area:

- Any alteration to trees which involves cutting, damaging, injuring or destroying individual trees over 3 metres high or cutting, damaging, injury or destroying areas of bush.
- The excavation or depositing of spoil up to 200 m³ of soil or other materials (excluding farm silage pits).
- The clearing of areas of trees and other vegetation necessary to provide a stable building area (for any approved building) and for access and servicing of that site.
- The diversion or modification of natural watercourses or lakes, including reclamation or drainage of wetlands.
- The management and harvesting of forests planted for that purpose including the formation of forestry roads.

For land in the medium and high intensity activity areas:

- Any alteration to trees which involves cutting, damaging, injuring or destroying individual trees over 6 metres high or cutting, damaging, injuring or destroying areas of bush over 6 metres high, and in the case of all Pohutukawa trees (*Metrosideros* spp) within 200 metres of mean high water springs any alteration to any tree which involves cutting, damaging, injuring or destroying individual trees over 3 metres high.
- The excavation or depositing of more than 200 m³ of spoil, soil or other materials where this is necessary for the development of the site for an activity authorised by the District Plan.
- The diversion or modification of natural watercourses or lakes including reclamation or drainage of wetlands which exceed 5000 m² in area.

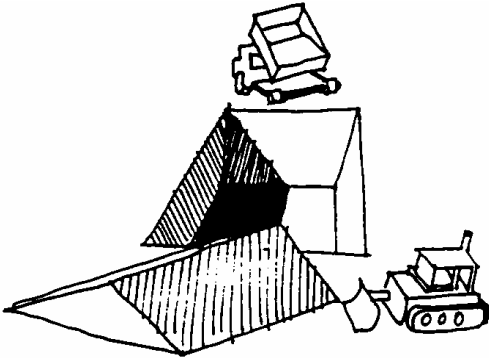
ASSESSMENT CRITERIA

The Council shall consider the following matters in assessing an application for any discretionary activity.

- The objectives and policies of the District Plan and of the Residential Activity area in which the site is located.
- The need of an applicant to obtain a practicable building site, access, parking area or the installation of engineering services to the land.
- Previous applications relating to the site.
- The alternative methods, actions or siting of development or buildings that could be available or recommended to the applicant for achieving his or her objectives.
- The extent to which the tree(s) contribute to the visual amenity of the neighbourhood or area and the effect that any proposals for replacing the tree(s) might have on such visual amenity.
- The extent to which the tree(s) is/are rare or endangered species, or of scientific interest.

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CONSERVATION OF LANDSCAPE



The excavation of deposition of soil, spoil.

- The significance of the tree(s) bush or landform as a wildlife habitat, and the ability to undertake mitigation measures.
- The extent to which the tree(s) endanger life or property on the site.
- The extent to which the removal of any tree(s), any excavation or any deposition of material effects land stability and the quality of water bodies in the vicinity of the site.
- In terms of an application for the deposition or removal of soil spoil or other material from a site, the quality of the soil remaining on the site and the effect of the deposition/removal on the visual amenity of the site and general vicinity, and the ability of the site to be used for a purpose authorised by the District Plan.

CONDITIONS WHICH MAY BE IMPOSED

In granting consent to a discretionary activity, the Council may impose conditions relating to the following matters:

- Amenity.
- Rarity and endangerment of a species.
- Wildlife Habitat protection.
- Water and soil conservation.
- Health and safety of residents and property.

3.8 VEHICLE PARKING, LOADING AND ACCESS

Refer to Rule 13.

3.9 GULF HARBOUR ACTIVITY AREA

The provisions in this part of the District Plan relate to the land at Gulf Harbour, Whangaparaoa. They appear as a self-contained module on the blue pages following the Appendices.