Penihana North Subdivision Design Criteria

GUIDELINES TO THE RULES

This part of the *Plan* sets out the design criteria for *subdivision* in *Penihana North*. The criteria will be considered for *subdivision* within the land identified as *Living 2 Environment* (Penihana North) and for *subdivision* in relation to a preceding or concurrent *land use consent* involving *medium density housing* within the land identified as *Living Environment (Penihana North)*. For the avoidance of doubt, where a land use consent application precedes any *subdivision,* the relevant matters contained in design criteria shall be considered in respect to that application. The design criteria apply in addition to *subdivision* assessment criteria elsewhere in the *Plan*.

These criteria are grouped into four Design Elements, which are:

Design Element A: Movement Networks
Design Element B: Block Size and Lot Type
Design Element C: Design of Roads
Design Element D: Design of Reserves

The design criteria listed under each Design Element are intended to give flexibility, enabling *site* responsive *subdivision designs*, while ensuring that the *subdivision* pattern as a whole works towards the urban design framework established by the *Penihana North Urban Concept Plan*. The criteria are designed to guide the *subdivision* and *development* of the land rather than prescribe the exact *design* and site layout of the *development*.

In the following pages, four design elements are described with appropriate illustrations. For each design element there is an introductory statement discussing the desired approach and issues to be considered, and reasons behind the design element.

DESIGN ELEMENT A: MOVEMENT NETWORKS

Design Element A relates to the general layout of the networks of *roads*, *reserves* and other linkages that make up the *public space* of any *subdivision* in *Penihana North*. These public routes need to be developed as an integrated movement and open space network in order to combine vehicular *roads*, pedestrian pathways, cycleways and *reserves* so that a logical structure of connected, safe and visually attractive movement routes can be established within the area. This will promote an integrated public (ie. bus and rail) and private transport network, and also ease of movement from one part of the area to another part.

Connectivity through appropriately designed movement networks enhances choice, supports social cohesion, makes places lively and safe, and facilitates contact among people. This is one of the most important principles of quality urban design. Places with good connections between activities and with careful placement of facilities benefit from reduced travel times and lower environmental impacts.

Under the *Penihana North Urban Concept Plan* the proposed *subdivision* of the area should be based on an integrated network of one primary and several secondary roads, and their alignment should be more or less similar to the network shown on the *Urban Concept Plan* in order to achieve the intended urban design outcome for *Penihana North*. Minor variations in this respect would be acceptable. The *subdivision* layout would also include a number of other secondary roads, only some of which are illustrated in an indicative manner on the *Urban Concept Plan* as "indicative secondary road link through blocks". These annotations indicate additional connections that should be generally achieved but do not represent specific alignments to be achieved.

Subdivision should provide appropriate walking and cycling routes as well as connections to public transport. This will provide informal opportunities for social and cultural interaction, and will also assist the residents to reduce their private vehicle trips.

Subdivision should accommodate visually attractive movement networks in prominent locations, which will create a pedestrian friendly environment and give the users a sense of security. Local trip distances should be short and residents should be able to walk to the nearby railway station, Swanson shops, *reserves* and other amenities easily.

Subdivision should utilise *reserves* and open space (as illustrated on the *Penihana North Urban Concept Plan*) as part of an integrated and connected pedestrian and cycle network.

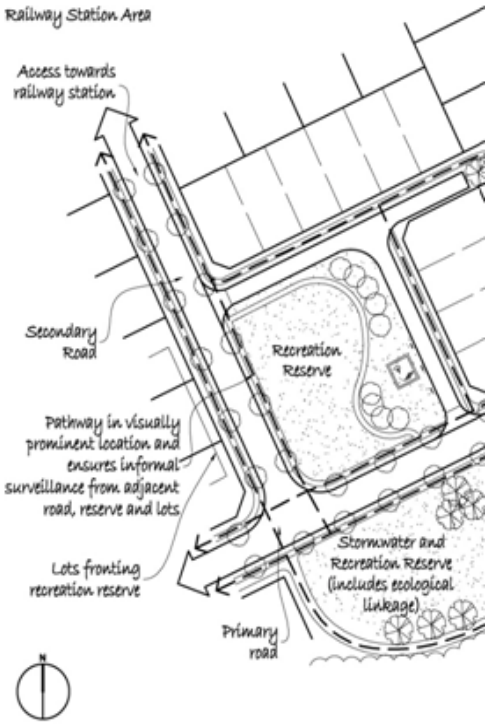

Diagram 1

ASSESSMENT CRITERIA

A1

The roading layout in the proposed *subdivision* should align with the primary and secondary *roads* illustrated on the *Urban Concept Plan.*:

A2

The proposed *subdivision* should maximise secondary roading connections to provide convenient access options to Swanson railways station and the open space network (also refer criterion B2)

A3

The proposed *subdivision* should provide a safe pedestrian cycle network consistent with that illustrated on the *Urban Concept Plan.*

A4

The proposed pedestrian network should be provided mostly on *roads*, as well as separated routes through the *reserves* and provide linkages to the railway line crossings at locations shown on the *Urban Concept Plan.*

A5

Roads and pedestrian and cycle linkages should be vested in the Council.

DESIGN ELEMENT B: BLOCK SIZE AND LOT TYPE

Design Element B describes principles for consideration in designing the block and *lot* layouts in the *subdivision*. Where the *subdivision* consent application is combined with or preceded by a *land use* consent application, the house *designs* and layout will determine the *lot* size and shape, and consequently the block size.

Aligning blocks in a northwest to southeast direction will minimise the number of entirely south facing *lots*, and achieve *dwellings* with good solar orientation. A combined *land use* and *subdivision* application (ie. for *medium density housing*) could address the solar orientation issue in a comprehensive way (i.e. by combining the *dwelling* and *lot design*).

Except where large comprehensive developments (eg. retirement villages) are planned, *subdivision* should create small and shallow blocks to minimise *rear sites*, achieve a permeable road network and a *development* not dominated by extensive building footprints. As such most blocks will be not more than two lots deep.

Maximising the potential number of *dwellings* that can front *roads* and minimising the number of *rear sites* will ensure safety and *amenity* of the public streetscape. In limited instances if a *road* cannot be accommodated, private accessways with adequate width and amenity features (e.g. footpath on one side and street trees on another side) could be utilised to serve a small number of properties.

In the *Living 2 Environment* (Penihana North) a variety of *lot* sizes will be encouraged to avoid monotony in the housing product. As per Council's growth policy, smaller lot sizes resulting from *medium density housing* will be expected closer to the railway station so that an increased housing density is achieved in that particular part of the *land*. Part of *Penihana North* abuts Christian Road, which is viewed as a long term rural edge for the city. As such, the *design* of *subdivision* should address this *road boundary* by providing a minimum width for each *lot*. This, in combination with minimising individual *driveways* and a specifically-developed cross section for Christian Road, will help maintain a transition to the *Foothills Environment*.

The *subdivision* layout should ensure the availability of *reserves* (i.e. both recreation and stormwater *reserves*) in visually prominent locations of the *development*, as illustrated on the *Penihana North Urban Concept Plan*. This will provide *reserve* users a sense of security and create a pedestrian friendly movement route.

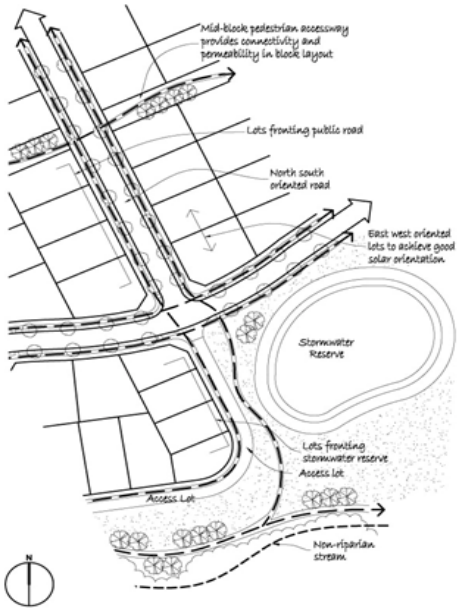

Diagram 2

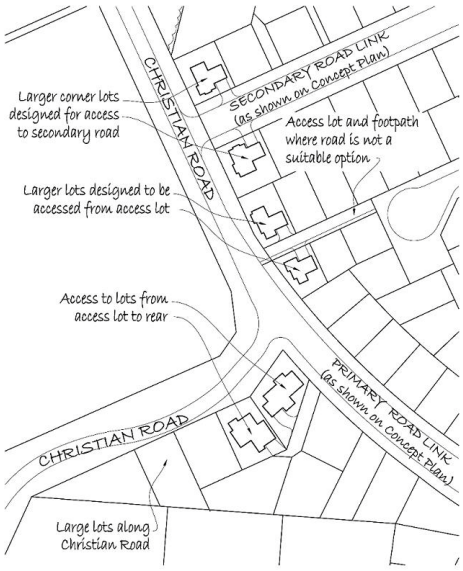

Diagram 3

ASSESSMENT CRITERIA

B1

The proposed *subdivision* should include blocks elongated generally northwest to southeast (parallel to the secondary *road* link as illustrated on the *Urban Concept Plan)* and *lots* to the east west orientation to achieve *dwellings* with good solar access.

B2

The design of the *subdivision* should create blocks of a scale and shape which achieves a permeable *road* layout and minimises *rear sites.*

B3

The *lot* layout in the proposed *subdivision* should provide:

- As many *lots* as possible fronting onto and are accessed directly from a public *road* (such that *rear sites* are avoided where possible).
- A greater density in *dwelling* and a transitional density by accommodating smaller *lots* or blocks to accommodate future *medium density housing* or other form of comprehensive development (eg. retirement villages) closer to the railway station.
- In the *Living 2 Environment (*Penihana North) where practical *lots* have access to a *road* or access lot to avoid *lots* backing onto stormwater and recreation *reserves,* as illustrated by Diagram 2.
- *Lots* with *road frontage* to Christian Road should minimise individual *driveway* access to this road (refer (Diagram 3), have sufficient width, and sufficient depth to provide for a greater yard *set back. Subdivision* should provide mechanisms to limit *fence heights* on the *road boundary* (and within the front yard) of lots abutting Christian Road to generally 1.2 metres.

DESIGN ELEMENT C: DESIGN OF ROADS

Design Element C specifies the design principles for *roads* and other access within *Penihana North*. *Road design* should be appropriate to function and provide practical widths for vehicles, *planting* and services. In this respect, the minimum width of different types of *roads* should be consistent with Council's Code of Practice for City Infrastructure and Land Development.

The location of Primary and Secondary *Roads* are illustrated on the *Penihana North Urban Concept Plan*. Indicative cross sections are provided for two roads expected to have a unique character, namely a Secondary Road along the railway edge, and Christian Road, which forms the boundary between *Penihana North* and the *Foothills Environment*.

All remaining *roads* of any proposed *subdivision* should be considered as Indicative Secondary Road Links, and some of their possible locations and orientations are indicated on the *Urban Concept Plan* to highlight the importance of roading connectivity and good solar orientation in the *subdivision design*.

Adoption of these *design* principles will allow the *subdivision* to achieve other important urban design outcomes (ie. *block and lot design*, *reserve design* etc.) expected from the area.

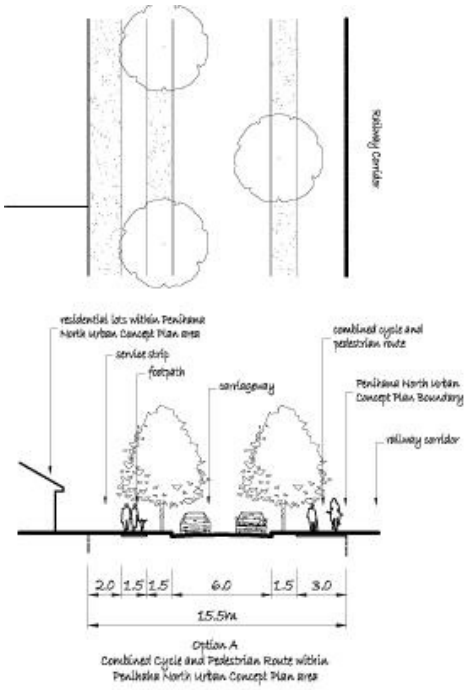

Diagram 4

ASSESSMENT CRITERIA

C1

The Primary *Road* identified on the *Urban Concept Plan* should be suitable for accommodating a possible bus route.

C2

The character and physical form of the Secondary *Road* shown along the railway edge on the *Urban Concept Plan* should complement the edge treatment and provide a pedestrian and cycle network through this particular area (refer to Diagram 4.) Proposals should also address potential issues of commuter *car parking* demand on roads in proximity to the railway station. This may result in refinements to the outcomes illustrated in Diagram 4, which could include a *car parking* lane on the railway line side of the road with *car parking* restrictions on the other.

C3

The character and physical form of Christian Road where it abuts *Penihana North* should reinforce the location of the road along the rural edge and provide a transition between rural and urban (refer to Diagram 5 and 6).

C4

Pedestrian and cycleway widths, alignment and location should allow for a short, straight, safe and attractive movement network.

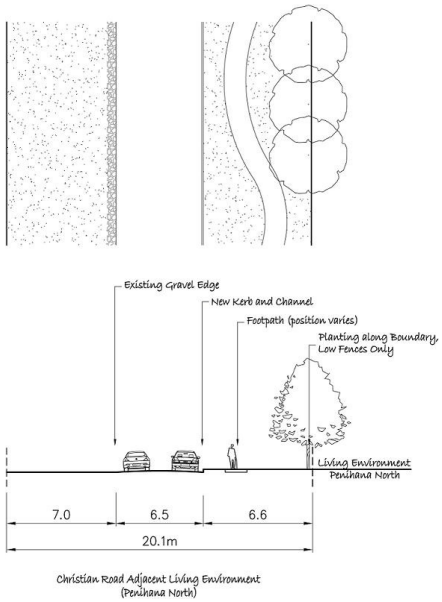

Diagram 5

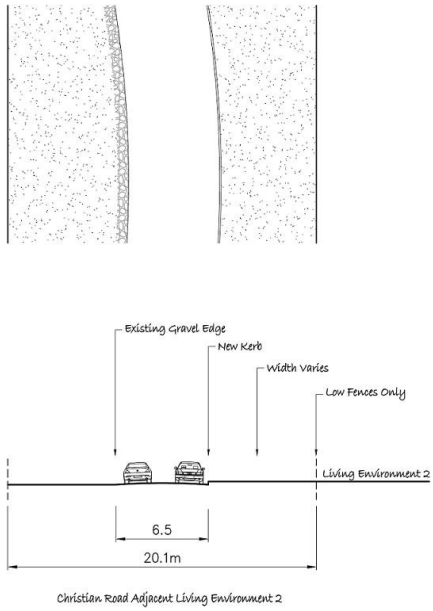

Diagram 6

DESIGN ELEMENT D: DESIGN OF RESERVES

Design Element D identifies design matters for consideration in locating, sizing and designing of recreation and stormwater *reserves* within the *subdivision*. In this regard, the assessment criteria of greenfields *subdivision* need to be considered when designing stormwater and recreation *reserves* which include ecological linkages and incorporate riparian and non-riparian margins.

The importance of an interconnected open space network and especially its utilisation to establish appropriate visual linkages towards the Waitakere Ranges foothills and railway station have been recognised specifically for *Penihana North*. At the same time, the open space network is also considered as a crucial element to establish an appropriate interface between the urban and rural environment.

Designing public open spaces in strategic locations overlooked by adjacent residential blocks and where possible bounded by *streets* is considered essential for a good urban design outcome from any *subdivision* layout. Again, creation of open spaces with size and shape appropriate to its users is also critical in this respect. *Reserves* that are mainly bounded by public *roads* are more secure, because of informal surveillance from the *road* and from the houses nearby, and are thus likely to discourage crimes against the person, vandalism, burglary, dumping and littering. In a visually prominent location with clear visibility from as many properties as possible, a *reserve* is likely to attract the maximum of number of users. As a guide, not less than half the total length of legal boundary of any recreation *reserve* should adjoin public *roads*.

The *Penihana North Urban Concept Plan* identifies a number of different types of open spaces including stormwater and recreation *reserves* which includes ecological linkage within the area. The location and purpose of these open spaces are defined by the *Urban Concept Plan*. However, the actual size and design details of these open spaces need to be finalised during the *subdivision design* stage.

DESIGN ELEMENT D — DESIGN OF RESERVES

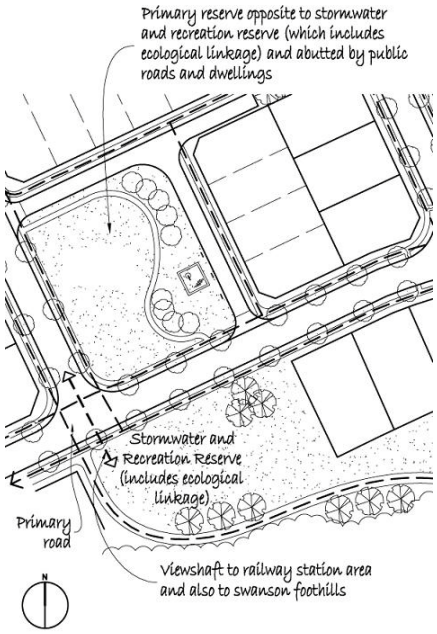

Diagram 7

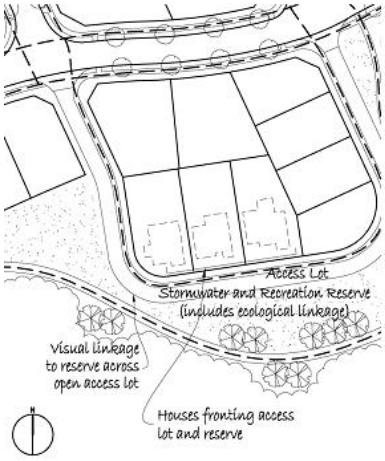

Diagram 8

ASSESSMENT CRITERIA

D1

Proposed *reserve should* be *designed* and located to ensure that the primary *reserve* in the layout is opposite to and lines up with edges of the stormwater and recreation *reserve* (which includes ecological linkage).

D2

The proposed stormwater and recreation *reserve* (which included ecological linkage and is identified on the *Urban Concept Plan* as *'Drainage / Ecological Open Space* and *Proposed Open Space"*) should allow appropriate viewshafts from both identified Secondary *Roads* to the Swanson foothills.

D3

The primary and secondary *reserves* should be physically linked by the secondary *road* with a view to the railway station area.

D4

The primary, secondary, and stormwater and recreation *reserve* (which includes ecological linkage) should be *designed* and positioned to be largely abutted by *roads* or fronted onto (across open access *lots* where necessary) by *dwellings*. Where this cannot be practically achieved, *subdivision* should provide mechanisms to limit *fence heights* to generally 1.2 metres where *lots* abut *reserves*.