

## 23 ASSESSMENT CRITERIA CONTENTS

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## 23 ASSESSMENT CRITERIA

### .....23.1 GENERAL CRITERIA.....

#### 23.7 SUBDIVISION – PART I

**Note:** The following criteria do not relate to subdivision in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.

#### **SUBDIVISION – PART II**

**Note:** ~~The following criteria relate only to subdivision in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.~~

~~Subdivision classified as restricted discretionary, discretionary or non-complying activities will be assessed having regard to the following assessment criteria.~~

#### ~~23.7.2 General infrastructure development criteria.~~

~~All Infrastructure design, construction, operation and maintenance shall be:~~

- ~~a. Effective and efficient in meeting its functional purpose.~~
- ~~b. Able to be maintained in an effective, efficient, and cost effective manner.~~
- ~~c. Affordable to the community over the lifetime of the asset.~~
- ~~d. Durable over the specified lifespan for infrastructure.~~
- ~~e. Integrated with other infrastructure and land uses.~~
- ~~f. Responsive to local conditions including hazards.~~
- ~~g. Compatible with, and not compromise, the effectiveness of network utilities and other reticulated infrastructure, including parks and reserves.~~
- ~~h. Generally and substantially consistent with any relevant Servicing and/or Structure Plans.~~
- ~~i. Compatible with existing networks and infrastructure.~~
- ~~j. Designed taking into account the effects of climate change.~~
- ~~k. Is resilient to natural hazards.~~

~~l. Providing for infrastructure connectivity where development adjoins land identified for further development.~~

~~m. Integrated with other infrastructure and land uses.~~

### **~~23.7.3 General subdivision criteria.~~**

~~a. Engineering basis.~~

~~All subdivision and infrastructure proposals shall be assessed against the ability to achieve compliance with requirements of NZS 4404 2004 as amended by the Engineering Document, or alternative as approved by the Alternative Design Procedure.~~

~~b. Easements – Private.~~

~~All subdivision where infrastructure and network utility connections across private land shall be assessed against the proposals ability to achieve appropriate provision and legal protection of private connections to infrastructure and network utility services over private land.~~

### **~~23.7.4 Site suitability.~~**

~~The following assessment criteria shall apply to all subdivision and infrastructure development and shall be assessed against the proposals ability to achieve the following:~~

~~a. The provision of safe allotments free from inundation, slippage, erosion and subsidence suitable for their intended use.~~

~~b. The provision of regular shaped allotments that do not constrain ease of development, with suitably sized building platforms appropriate for the use provided for within the zone.~~

~~c. The requirement for a report from a suitably qualified and experienced person, if required, detailing the suitability of all allotments and any specific works that are required, that reflects the scope, nature, and complexity of the geotechnical issues and constraints facing the development site, and the intended future use.~~

~~d. The requirement for any consent notices where required detailing and securing any specific and/or on-going requirements arising from any report on site suitability.~~

~~e. The avoidance of the requirement for excessive engineering works, excluding specific foundation design and construction, after the issue of a Certificate pursuant to Section 224 of the Resource Management Act.~~

~~f. The maintenance of existing topography, significant natural features and existing hydrological flows as far as practicable.~~

- ~~g. The identification of any part of a proposed allotment that has undergone significant construction or reconstruction including cut, fill, or that is subject to overland flows or natural hazards.~~
- ~~h. The provision of suitable ground conditions for on-site waste water and stormwater disposal where on-site servicing is required by the District Plan.~~
- ~~i. The identification of any specific and detailed requirements for low impact stormwater solutions including appropriate soil conditions, maintenance provisions and costs, and life cycle.~~
- ~~j. Avoidance of potential encroachment into the requirements of the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZCEP: 34 2001) by future building development.~~

#### **~~23.7.5 Site serviceability.~~**

~~All subdivision and infrastructure development that requires, and/or, proposes to connect to reticulated water, wastewater and stormwater service shall be assessed against the proposals ability to achieve the following:~~

##### ~~Service connections.~~

- ~~a. Each allotment is provided with suitable connections to reticulated services that provide appropriate levels of service for water, wastewater, and stormwater.~~

##### ~~Infrastructure capacity.~~

- ~~b. Subdivisions that are required and proposes to connect to any and all relevant infrastructure catchments or systems proceeds only where:
  - ~~i. there is available servicing capacity or supply for the anticipated total level of development by the proposed and anticipated future development within that catchment as provided for in the relevant zones.~~
  - ~~ii. Subdivision does not use capacity intended for other areas (including upstream and downstream capacity or supply).~~~~

~~Where there is not sufficient available servicing capacity or supply for the anticipated total level of development the proposals ability to provide for:~~

- ~~i. A suitable alternative method for servicing and associated connections that has been approved by way of the Alternative Design Procedure; and/or,~~
- ~~ii. The creation of supply or capacity in accordance with the requirements of this Plan, NZS 4404 2004 and the Engineering Document 2016 to service the proposal at the subdividers cost; and/or,~~

- ~~iii. On-site attenuation, retention or mitigation of peak and/or total flows to create pre and post development hydrological equilibrium where practicable in the case of stormwater, or,~~
- ~~iv. Deferral of the completion of a proposal until such time as Council provides capacity where upgrades to any network is programmed.~~
- ~~c. Compliance with the New Zealand Fire Service Fire Fighting Supplies Code of Practice 2008 PAS 4509:2008 for allotments with reticulated water, and the ability to comply for sites without reticulated water supply.~~

#### **~~23.7.6 Network utilities.~~**

~~All subdivision development that is required to, and/or, proposes to connect to network utility services shall be assessed against the proposals ability to achieve the following:~~

- ~~a. Connections to network utility services are provided to a suitable level of service.~~
- ~~b. The avoidance of significant costs to connect to network utilities, including any requirement to provide for additional capacity, after the issue of a Certificate pursuant to Section 224 of the Resource Management Act 1991.~~

#### **~~23.7.7 Site access.~~**

~~All subdivision development shall be assessed against the proposals ability to achieve the following:~~

~~Crossings and vehicle access.~~

- ~~a. Safe, practical and durable vehicle accessways/ right of ways and crossings.~~

~~On-site manoeuvring.~~

- ~~b. The practical provision of forward egress onto Arterial Roads on the Roding Hierarchy.~~

#### **~~23.7.8 Easements and vesting – public.~~**

~~The following assessment criteria shall apply to all subdivision where infrastructure and network utility infrastructure is being vested in Council and shall be assessed against the proposals ability to achieve the following;~~

- ~~a. Sufficient land area vested and/or easements to provide efficient access to public infrastructure for operational and maintenance purposes.~~
- ~~b. The requirement additional for additional vested land area or easement extent to accommodate factors such as topography and~~

~~the location of other infrastructure to enable reasonable access to infrastructure for maintenance or operational purposes.~~

**23.7.9 — Catchment management.**

~~All subdivision and infrastructure development shall be assessed against its ability to achieve the following;~~

- ~~a. The design, construction and operation of stormwater, water, and wastewater infrastructure in a whole of catchment based approach.~~
- ~~b. Infrastructure that provides for the maximum potential demand arising from the development the allotments, including future land uses as anticipated by the District Plan, unless that land is constrained by hazards.~~
- ~~c. Where land is identified for future development higher in the catchment, infrastructure is:
  - ~~i. located in a manner that enables connections or extensions to that infrastructure in the future.~~
  - ~~ii. provides for the ability to create sufficient capacity for upstream extensions where additional land is zoned for development higher up in the catchment.~~~~
- ~~d. New and extended reticulation shall is compatible with upstream and downstream infrastructure.~~
- ~~e. The identification of any downstream works required to cater for the proposed anticipated use of the allotments.~~
- ~~f. Where capacity is constrained downstream in the catchment, the proposal shall either:
  - ~~i. Provides capacity for its own servicing needs to the specified level of service by either performing the works required; or,~~
  - ~~ii. Provides a suitable alternative method approved by the Alternative Design Procedure; or,~~
  - ~~iii. Provisions are made for Council to provide that capacity where works are proposed in an existing capital works programme.~~~~

**23.7.10 — Consideration of alternative solutions.**

~~All subdivision and infrastructure development that does not use the solutions in NZS: 4404 2004 and the Engineering Document, except where the Alternative Design Procedure, is used shall be assessed against the proposals ability to achieve the following:~~

- ~~a. The design alternative proposed is functional with the subdivision layout proposed.~~

- ~~b. The alternative does not constrain the ability for connectivity to infrastructure serving other land zoned for development, nor the ability of that land to be developed.~~
- ~~c. The design alternative meets all the relevant general infrastructure and specific infrastructure requirements and criteria.~~
- ~~d. Alternative solutions reflect industry best practice.~~
- ~~e. In the case of design, alternative solutions are approved by the relevant network or infrastructure provider in which it will be.~~
- ~~f. In the case of construction and materials, alternative solutions shall be approved by the relevant network or infrastructure provider in which it will be vested prior to an application for a certificate pursuant to Section 224 of the Resource Management Act being made.~~
- ~~g. The required levels of service for infrastructure are maintained.~~
- ~~h. The ongoing lifecycle needs costs of maintenance are comparable to those in NZS 4404 2004 and the Engineering Document.~~

**~~23.7.11 Infrastructure deferrals and bonding.~~**

**~~23.7.12 Allotment sizes below the minimum.~~**

~~Subdivision to create allotments in the Residential zone under the specified minimum allotment size, including those located within the Otamatea Development Overlay shall be required to demonstrate the following:~~

- ~~a. Suitable capacity is available for reticulated servicing for the proposed allotments in the servicing catchment or catchments in which the proposal is located, and;~~
- ~~b. The proposal does not reduce the capacity or level of service available to service the remainder of land within the servicing catchment at a density development intended by this Plan, or;~~
- ~~c. An approved alternative method of servicing that mitigates the effect of additional development density on reticulated infrastructure.~~

**~~23.7.13 Subdivision in the Springvale Indicative Future Development Area~~**

~~All subdivision in the Springvale Indicative Future Development Area shall be required to demonstrate the following:~~

- ~~a. Consistency with the indicative roading, stormwater, ponding infrastructure identified on the Springvale Indicative Development Plan.~~
- ~~b. The proposed subdivision directly adjoins, and is a logical extension to, existing development of residential scale and allotment size.~~
- ~~c. Sufficient existing capacity is available in the infrastructure catchment to provide for the scale of development proposed.~~

- d. ~~The proposed allotment sizes are of a residential scale.~~
- e. ~~The provision of connectivity and linkages to roads and infrastructure shown in the Springvale Indicative Development Plan.~~

**23.7.14 ~~Building platforms, NZECP: 34 2001, and the electricity transmission corridor.~~**

~~For subdivision that creates allotments that do not comply with Rule 13.5.6 (b) (vi and vii), the following assessment criteria apply:~~

- a. ~~The extent to which the design, construction and layout of the subdivision (including landscaping) allows for activities to be set back from Electricity lines to ensure adverse effects on and from them and on public health and safety are appropriately avoided, remedied or mitigated.~~
- b. ~~The provision for the ongoing operation, maintenance and planned upgrade of Electricity lines.~~
- c. ~~The risk to the structural integrity of the Electricity lines.~~
- d. ~~The extent to which the subdivision design and consequential development will minimise the risk of injury and/or property damage from Electricity lines.~~
- e. ~~The extent to which the subdivision design and consequential development will minimise the potential reverse sensitivity and nuisance effects of Electricity lines.~~
- f. ~~Outcomes of consultation with the affected lines owner.~~

**23.7.15 ~~Mechanical pump stations.~~**

~~Subdivision proposing or requiring the installation of additional mechanical pump stations shall be assessed on the following:~~

- a. ~~The availability and viability of alternative servicing arrangements for that land;~~
- b. ~~Whether the land is developable without the use of a pump station;~~
- c. ~~The costs of operation and maintenance over the lifetime of the station;~~
- d. ~~Whether or not the land serviced by the pump station is zoned for further intensive development;~~
- e. ~~The degree of risk associated with failure of that pump station.~~

**23.7.16 ~~Historic heritage.~~**

~~The following shall be considered for subdivision that locates on land where there are known archaeological sites and/or historic heritage, or where they are likely to occur:~~



- a. ~~The identification, recognition and, as far as practicable, protection of historic heritage, including archaeological sites.~~

## 23.8 VEHICLE ACCESS, PARKING AND SIGNAGE

Note: The following criteria relate only to activities in the Residential, Rural, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.

## .....23.9 TRANSPORT INFRASTRUCTURE

Note: ~~The following criteria relate only to activities in the Residential, Rural, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.~~

- 23.9.1** ~~Transport corridors that are designed, constructed and maintained in a manner that:~~
- a. ~~Is integrated with, and appropriate for, proposed or existing land uses.~~
  - b. ~~Provides safe and liveable places for living, working, and playing.~~
  - c. ~~Promotes connectivity, is highly permeable, and minimises travel distance.~~
  - d. ~~Provides visual amenity through appropriate layouts and landscaping.~~
  - e. ~~Provides efficient and safe access to work, living, and recreational spaces.~~
  - f. ~~Enables and provides for the functional requirements of network utilities.~~
  - g. ~~Promotes positive community interaction.~~
  - h. ~~Provides for meaningful choice in the mode of movement.~~
  - i. ~~Is consistent with the Whanganui District Roding Hierarchy and the Wanganui Urban Transport Strategy.~~
  - j. ~~Is accessible by all.~~
  - k. ~~Complements existing topographical features.~~

### **23.9.2** ~~Passage.~~

~~Road Reserve widths shall be adequate to cater for all anticipated requirements inclusive of vehicle movements, cycle traffic, pedestrian traffic, vehicle parking, network utility operators, and landscaping. Road designs shall encourage vehicles speeds which are consistent with that which is desirable having consideration of the proposed level and type of~~

activity and land uses being served and the physical environment in which they are located.

### **23.9.3 — Safety.**

Road designs shall allow for the interaction of all road users and road usages to ensure that safety is maximised. Designs shall incorporate an adequate system of artificial lighting which is appropriate to its location so as to maintain safety through periods of darkness, avoid entrapment spaces, and promoted community safety through casual surveillance where adjoining accessways, public open space, and streets.

### **23.9.4 — Access.**

The roading network shall provide vehicular access to all residential properties, goods and services access to all commercial properties and an appropriate level of heavy transport access to all industrial properties. Emergency services access shall be maintained to all areas. Discrete accessible footpaths shall be provided.

### **23.9.5 — Parking.**

The roading proposal shall provide adequate parking both on and off the carriageway to cater for reasonable levels of residential, commercial and visitor parking, which will be required both as a consequence of land development and of access to other adjacent land areas which are, or might reasonably be expected to be, developed.

### **23.9.6 — Function.**

The road design shall be clearly appropriate to its intended function within the overall roading network in accordance with the Roding Hierarchy in the District Plan and the Wanganui Urban Transport Strategy, while taking into account adjoining land uses and the surrounding environment.

Where required, roads may form part of the stormwater management system. Roads should also promote community interaction, and provide a sense of place.

### **23.9.7 — Streetscape.**

In addition to being functional and safe, the road design shall aesthetically enhance and complement the land development through landscaping and street furniture and encourage community interaction and promote liveability. Streetscape should recognise the role of the road in the Roding Hierarchy in the District Plan, the existing or proposed surrounding uses, and the surrounding environment.

### **23.9.8 — Drainage.**

The road design shall include provision for a low maintenance formalised stormwater drainage system which ensures that all trafficable areas, parking areas or pedestrian walkways are kept free of surface water and maintain a safe operating surface. Road Reserve may be used for attenuation, detention, as a secondary flowpath, by way of swale or other

~~mechanism only where required and approved by the road controlling authority and the stormwater asset manager. Drainage shall be in accordance with the requirements of the stormwater provisions in this Plan.~~

### **~~23.9.9 Economic life-cycle costs.~~**

~~Road design shall provide a level of service which is appropriate to the District in general and the designated standard of the immediate area in particular, but which minimises the overall life-cycle costs. Life cycle costs shall include capital, finance, maintenance and rehabilitation cost. For the purposes of this criterion the life-cycle shall be taken as no less than 25 years. Maintenance through this period shall be those activities involved in a reasonable level of road reinstatement, and not include capital works.~~

### **~~23.9.10 Compliance with other policy.~~**

~~Road design shall identify and provide for the outcomes arising from other relevant policy from the future road controlling authority. This shall include the following documents:~~

- ~~• The Wanganui Urban Transport Strategy~~
- ~~• Shared Pathways Strategy~~
- ~~• Wanganui Cycling Strategy~~
- ~~• Cycling Implementation Plan~~
- ~~• Wanganui District Council Tree Policy 2008~~

### **~~23.9.11 Urban design.~~**

~~All subdivision and infrastructure where new roads and accessways are required and/or created shall be assessed against the proposals ability to achieve the following;~~

- ~~a. The design and layout of roading, footpath patterns, and layout of allotments retains and integrates the natural cultural, historical, topographic characteristics and other unique features of the area of the site and the design and layout of any adjoining urban areas.~~
- ~~b. Road and/or pedestrian and cycle connections are provided between the land being subdivided, existing roads, adjoining properties and balance lots, unless unreasonably constrained by topography.~~
- ~~c. An indicative future roading layout shall be identified on the plan of subdivision that identifies and promotes connections to existing or potential future road and cycle and pedestrian accessways that can comply with the provisions of this Plan.~~
- ~~d. Public open space is accessible prominent and accessible, with a minimum of 40% of the length of the boundary having direct road frontage.~~

- ~~e. Pedestrian and/ or cycle accessways are located in the most direct and efficient location practicable.~~
- ~~f. Discrete accessible footpaths, accessways and cycleways are provided provided, unless one or more of the following apply:
  - ~~i. the intended density of development is low and not affordable for the community, and/or;~~
  - ~~ii. the intended density of the surrounding development is low, and/or;~~
  - ~~iii. the topography precludes the provision of a discrete accessible footpath, and;~~
  - ~~iv. No pedestrian or cycle link has been identified as being required in the Shared Pathways Strategy 2012, Cycling Strategy, Cycle Implementation Plan, or the Wanganui Urban Transport Strategy.~~~~
- ~~g. Landscaping provides suitable high quality amenity in accordance with the Wanganui District Council Tree Policy 2008.~~
- ~~h. Specimen trees are an appropriate species and planted in location that does not interfere with or damage underground or above ground infrastructure. Vegetation proposed to be planted in close proximity to electric lines should be selected and located in a manner that will not result in vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.~~
- ~~i. Street furniture is provided in a manner that promotes a high amenity urban space, community interactions, safety, and promotes a sense of place that is consistent with the adjoining uses and function of the road in the Roading Hierarchy.~~
- ~~j. Adequate and coordinated space for network utility services, in accordance with the requirements of the operators.~~

**~~23.9.12 Reverse sensitivity – Residential and Rural B zones only.~~**

- ~~i. Whether the proposed activity will have reverse sensitivity effects on adjacent activities or zones; including on the operation of land transport networks, including railways.~~
- ~~ii. The proposed methods for avoiding, remedying or mitigating adverse effects, including reverse sensitivity effects, for locations adjacent to major infrastructure, such as land transport networks, include the design of building or structure, the use of materials, design, installation and maintenance of landscaping.~~

## 23.10 WATER INFRASTRUCTURE

**Note:** The following criteria relate only to activities in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.

**23.10.1** The water supply system shall be designed, constructed and maintained in a manner that:

- a. Safeguards people from illness caused by infection from contaminated water.
- b. Safeguard against injury or property damage arising from the operation of the system.
- c. Safeguard people from loss of amenity arising from a water supply that is offensive in appearance or odour.
- d. Provides adequate quantity and quality of supply of potable water for the reasonably foreseeable consumption, health and hygiene needs of people.
- e. Conserves water by avoiding leaks and, where practicable, the use of water.
- f. Provides adequate water supply for fire fighting in urban areas.
- g. Contains sufficient storage for security of supply.
- h. The upstream catchment is provided for and the downstream network has the capacity to provide for anticipated development.

### **23.10.2 Quality.**

New components connected to the water supply in the urban water network, shall be capable of providing potable water to the point of connection for users at a quality grading of not less than Bb, complying with the requirements of public health standards and the City's asset management plan for the public water supply. Network water supplies to dwellings outside the urban water network shall provide water of quality which meets the appropriate drinking water standard.

### **23.10.3 Quantity.**

The water supply shall have the capacity to service the anticipated demand at adequate flow and pressure. For a reticulated supply the following shall be achieved:

- maximum working pressure - 90 m
- minimum working pressure at peak flows - 30 m
- minimum working pressure under firefighting flows - 15 m
- minimum available flow at point of supply - 15 litres per min.

~~————— A reticulated system shall provide both:~~

- ~~• ——— flows equivalent to the Fire Service Code of Practice flow requirements plus two thirds of the peak daily consumption flow, and~~
- ~~• ——— peak daily demand.~~

~~————— Peak daily demand for design shall be 1000 l/head/day.~~

~~————— The population served shall be based on not less than 3 persons per dwelling. Where dwelling unit density is not known, population may be based on 60 persons per hectare.~~

~~————— Industrial and commercial demands shall be specifically analysed for known or potential usage.~~

#### **~~23.10.4 ——— Firefighting.~~**

~~————— The water supply shall satisfy appropriate fire protection standards and maintain access for firefighting.~~

#### **~~23.10.5 ——— Storage.~~**

~~————— The water supply system shall have adequate storage capacity to allow for consumption as well as firefighting purposes, and to provide reserve supply for the calculated requirements of users.~~

#### **~~23.10.6 ——— Economic life cycle costs.~~**

~~Water supply systems shall be designed in a way which, while meeting other criteria, minimises the overall life-cycle costs inclusive of capital, operating, maintenance and rehabilitation costs. For the purposes of this criterion, the life-cycle shall be taken as no less than 25 years.~~

#### **~~23.10.7 ——— Compatibility and durability.~~**

~~————— The water supply system shall use safe and durable materials which are compatible with Council's existing water supply systems and Schedule of Approved Materials. The system shall be constructed to prevent leakage and potable water contamination and to withstand anticipated pressures and loads.~~

#### **~~23.10.8 ——— Maintainable.~~**

~~————— Water supply systems shall be positioned so as to be easily located, provide reasonable access for maintenance and be constructed in a manner that enables easy isolation and replacement / repair of faults.~~

#### **~~23.10.9 ——— Security.~~**

~~————— The water supply system shall have adequate valves, meters, alarms, looped pipe systems or other emergency provisions to minimise the risk and extent of loss of service, or contamination of supply due to failure, or to maintenance requirements.~~

#### **~~23.10.10 ——— Monitoring.~~**

~~————— The water supply system shall include adequate facilities for monitoring of system operation as part of management of the supply or for~~

measurement of supply for charging. The monitoring system shall be compatible with the *Council's*\* preferred current system of monitoring.

## **23.11 WASTEWATER INFRASTRUCTURE**

**Note:** The following criteria relate only to activities in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.

**23.11.1** To collect, treat, and dispose of wastewater and wastewater products in a manner that minimises adverse effects on the environment and safeguards the population from injury and illness caused by infection or contamination resulting from exposure to wastewater.

**23.11.2** The wastewater system shall be designed, constructed and maintained in a manner that:

- a. Safeguards public health from potential infection and contamination of natural ground water, water supply, and the soils.
- b. Safeguards people from loss of amenity due to the presence of unpleasant odours or the accumulation of offensive matter resulting from wastewater and foul water disposal.
- c. Promotes low impact development.
- d. Minimises adverse effects on the natural environment.

**23.11.3** The wastewater system shall be capable of carrying and treating the peak flows anticipated during the economic lifecycle of the system, with due allowance for ground and surface water inflow and infiltration. Population density shall be based on proposed use but in no circumstance provide for less than a minimum of 45 persons per hectare or 3 persons per household for the urban area.

— Reticulated design flows shall be not less than the following:

- a. Domestic Flow:
  - i. Average dry weather flow (ADWF) – 275 litres/head/day.
  - ii. Wet weather flow (WWF) – 1100 litres/head/day.
- b. Commercial and Light Industrial Flow:
  - Dry weather flow – 0.22 litres/sec/ha.
  - Wet weather flow (3 x ADWF) – 0.66 litres/sec/ha.
- c. Industrial Areas:
  - Specifically determined for the proposed use of the development.

d. ~~Retail and Suburban Commercial Areas:~~

i. ~~ADWF = 0.25 l/sec/ha.~~

ii. ~~WWF = 0.75 l/sec/ha.~~

**23.11.4 ~~Discharge.~~**

~~Underground piped reticulation shall convey wastewater to an approved discharge point, in a manner that ensures good public health and minimises adverse effects on the environment.~~

~~There is separation of trade wastes from domestic wastewater within the reticulated urban area. In this area separate systems for trade wastes and for domestic wastewater will be required unless trade wastes are treated sufficiently to be accepted for discharge to the domestic wastewater stream.~~

**23.11.5 ~~Self cleansing.~~**

~~All wastewater systems shall be designed so that they are self cleansing with current or expected peak dry weather flows.~~

**23.11.6 ~~Treatment.~~**

~~No wastewater shall be designed in a manner that allows untreated effluent to be discharged to the environment unless it has first been treated to avoid the likelihood of contamination of soils, groundwater and waterways except as permitted under the Resource Management Act 1991.~~

**23.11.7 ~~Connection to collection network.~~**

~~Subject to complying with the conditions of Council's trade waste bylaws, wastewater sources may be connected to the public wastewater network.~~

~~Private wastewater systems, including septic tanks and privately owned and operated treatment plants, shall be considered on a case by case basis. They shall generally only be permitted where they achieve the least adverse effects on the environment (including consideration of economic life-cycle costs) and it can be demonstrated that sustainable management systems are in place for their long term operation and funding.~~

**23.11.8 ~~Other demand.~~**

~~The wastewater system design shall demonstrate that the design has considered, and will allow for surplus capacity to meet expected future demand.~~

**23.11.9 ~~Restriction on discharge.~~**

~~Connection of stormwater drains may not be made to the wastewater system except under extraordinary circumstances. Systems shall be designed to eliminate the risk of inflow and infiltration.~~

~~The level of a gully trap for any new connection to the wastewater network shall be:~~

- ~~• at least 50 mm below the finished floor level of adjacent buildings;~~



- at least 150 mm above the nearest opening in the wastewater network;
- above the surface level of stormwaters with a 2% or greater probability of recurrence in any year (a 50 year storm).

#### **23.11.10 Economic life-cycle costs.**

Wastewater disposal and treatment systems shall be designed in a way that minimises the overall life-cycle costs inclusive of capital, operating, maintenance and rehabilitation costs. For the purposes of this criterion, the life-cycle shall be taken as no less than:

- a. Pipe work, appurtenances, all associated concrete work, tankage and detention structures: 80 year;
- b. Mechanical and electrical plant, with provision made for easy maintenance and replacement: 25 years.

#### **23.11.11 Compatibility and durability.**

The wastewater system shall use safe and durable materials which are compatible with their immediate surroundings, be constructed to eliminate the likelihood of leakage and infiltration and able to withstand anticipated pressures and loads.

Materials used in the wastewater system shall be compatible with Council's existing wastewater systems and approved Schedule of Materials.

#### **23.11.12 Maintainable.**

Wastewater systems shall be positioned so as to be easily located, provide reasonable access for maintenance and be constructed in a manner that enables easy isolation and replacement / repair of faults.

#### **23.11.13 Security.**

The wastewater system shall have adequate alarms, standby pump capacity, access points or other emergency provisions to minimise the risk and extent of loss of service due to failure, or maintenance requirements.

#### **23.11.14 On-site disposal.**

On site disposal systems shall not be used in the Residential zone in other zones onsite disposal shall have no more than minor environmental effects which can be contained within the lot. They shall be designed to minimise maintenance needs. The design shall be based on field testing and any other site investigations needed to demonstrate that the effects on the environment of the system will be minor.

Independent network disposal (community based) systems shall have environmental effects equivalent or better in all respects with that achieved by public reticulation and treatment, and shall be such that the effects of disposal remain entirely within the lot it is intended to serve or within the

specified disposal area. They shall be designed to minimise maintenance needs. The design shall be based on field testing and any other site investigations needed to demonstrate that the effects on the environment of the system will be minor. Where a community system is proposed and, not to be vested in Council, there shall be adequate arrangements for the ongoing maintenance and operation of the system.

## 23.12 ~~STORMWATER INFRASTRUCTURE~~

**Note:** ~~The following criteria relate only to activities in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.~~

**23.12.1** ~~The stormwater disposal system shall be designed, constructed and maintained in a manner that:~~

- ~~a. Safeguards people from injury or illness from damage caused by surface water;~~
- ~~b. Mitigates adverse effects caused by surface water on other properties;~~
- ~~c. Protects the environment from accelerated erosion or sedimentation, and the effects of contaminants in stormwater discharges;~~
- ~~d. Avoids excessive modification of natural drainage systems;~~
- ~~e. Takes the effects of climate change into account;~~
- ~~f. Conveys surface water to an appropriate outfall primarily using gravity;~~
- ~~g. Adequately services each allotment, road area or other land area falling to the point of entry into the drainage system;~~
- ~~h. The upstream catchment is provided for and the downstream receiving network has the capacity to receive anticipated development;~~
- ~~i. Avoids the discharge of stormwater to any wastewater sewer network;~~
- ~~j. Integrates other infrastructure and land uses where practical;~~
- ~~k. Utilises low impact design principles where necessary or desirable.~~

**23.12.2** ~~Level of protection.~~

~~———— The stormwater management system shall:~~

- ~~a. Prevent, as far as is practicable, the regular flooding of property and the damage which results from such flooding as required by the following table:~~

Table 1 Stormwater Design Requirements

| Function  | Annual Exceedance Probability (AEP %) | Return Period (years) |
|---|---------------------------------------|-----------------------|
| Primary Systems:  |                                       |                       |
| – Rural   | 20                                    | 5                     |
| – Residential and rural lifestyle areas                 | 10                                    | 10                    |
| – Commercial and industrial areas                       | 10                                    | 10                    |
| – All areas where no secondary flow paths are available | 1                                     | 100                   |
| Secondary systems                                       | 1                                     | 100                   |

- b. Minimise, as far as is practicable, the regular and prolonged flooding of roadways unless they are permitted to be used as a secondary flow path by the infrastructure manager.
- c. Provide a level of service which in no circumstance is less than that provided to the surrounding environment.
- e. Provide for potential upstream development of the stormwater catchment.
- f. Connect to reticulation only where there is downstream capacity to do so.

### **23.12.3 Protection of structures.**

The stormwater system shall provide a level of protection to structures from inundation based on the use and importance of the structure, but in no case less than the requirements of the NZ Building Code.

### **23.12.4 Control of flowpaths.**

Surface runoff shall be conveyed in suitable pipes, formed channels or defined water courses to approved discharge points.

### **23.12.5 Overland flow routes.**

New development and redevelopment projects shall be planned, designed and constructed so as to maintain or enhance the effectiveness of existing overland flow routes.

New development shall be planned, designed and constructed so that stormwaters cannot exceed a depth of 150 mm above kerb level before they are released overland to approved secondary flowpaths.

### **23.12.6 Safety.**

~~Stormwater systems shall prevent an undue risk to personal health and safety. Stormwater systems shall incorporate barriers or other measures to prevent people being carried into pipe systems by water flows, and to minimise the risks to individuals caused by excess ponding or water in open channels.~~

~~Open channels and surface drains shall be used only where peak flows do not cause an undue hazard or where because of the large quantities of stormwater involved, are needed for effective collection of surface water.~~

#### **~~23.12.7 Development potential.~~**

~~The design of stormwater systems shall demonstrate that the design has considered and will ensure surface water is controlled without unduly restricting the reasonable development potential of land within the balance of the catchment.~~

#### **~~23.12.8 Other demand.~~**

~~Stormwater systems shall allow for surplus capacity to meet existing or expected future demand.~~

#### **~~23.12.9 Restriction on discharge.~~**

~~Connection of wastewater drains or other contaminated water may not be made to the stormwater system except under extraordinary circumstances.~~

#### **~~23.12.10 Economic life-cycle costs.~~**

~~Stormwater systems shall be designed in a way which, while meeting other criteria, minimise the overall life-cycle costs inclusive of capital, maintenance and rehabilitation costs. For the purposes of this criteria, the life-cycle shall be taken as no less than;~~

- ~~a. Pipe work, appurtenances, all associated concrete work, tankage and detention structures: 80 years;~~
- ~~b. Mechanical and electrical plant, with provision made for easy maintenance and replacement: 25 years.~~

#### **~~23.12.11 Compatibility and durability.~~**

~~Both open and closed stormwater system shall use safe and durable materials and be constructed to minimise the likelihood of leakage and infiltration and to withstand anticipated pressures and loads.~~

~~Materials used in the stormwater system shall be compatible with Council's existing systems and approved Schedule of Materials.~~

#### **~~23.12.12 Maintainable.~~**

~~Stormwater systems shall be positioned so as to be easily located, provide reasonable access for maintenance and be constructed in a manner that enables easy isolation and replacement / repair of faults.~~

#### **~~23.12.13 Limitation of peak flows.~~**

~~Stormwater systems shall provide for source control systems for stormwater runoff such as on-site soakage and detention or other measures to reduce peak flows as far as is possible.~~

#### **23.12.14 No erosion.**

~~Stormwater systems shall ensure that the landform of water courses is stabilised such that the risk of erosion, debris or gravel blockage, inlet and outlet scour and land instability are minimised.~~

#### **23.12.15 Climate change.**

~~The design, construction and operation of stormwater infrastructure shall incorporate design considerations allowing for the effects of climate change, including when assessing downstream capacity and the requirements of potential upstream discharges.~~

### **23.13 EARTHWORKS (Associated with Subdivision)**

~~Note: 1. The following criteria relate only to activities in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.~~

~~2. Where land use consent is required for earthworks in conjunction with subdivision consent, the relevant Assessment Criteria 23.17 shall also apply.~~

**23.13.1** ~~Earthworks shall be designed, constructed and maintained in a manner that:~~

- ~~a. Promotes low impact development.~~
- ~~b. Safeguards health and safety of people and property.~~
- ~~c. Minimises adverse effects on the natural environment and processes.~~
- ~~d. Provides for cultural heritage.~~
- ~~e. Avoids nuisance effects.~~

**23.13.2** ~~To improve the potential for development, earthworks proposals shall demonstrate that they meet the following criteria:-~~

- ~~a. Low impact development.~~  
~~Enabling minor works primarily for the installation of infrastructure and the minor leveling of building platforms.~~  
~~The maintenance of existing landforms, topography, and natural processes such as overland flows while enabling.~~  
~~The retention of topsoil on proposed allotments, including the amount that remains in-situ where practical.~~

~~The avoidance of soil runoff as a result of earthworks including the placement of appropriate vegetative ground cover as soon as practical after works on part or the whole site, are completed.~~

~~The avoidance of discharging sediment from earthworks onto roads or into stormwater or wastewater infrastructure by the development and approval of a Sedimentation Management Plan that sets aside the methods used for managing the off-site disposal of soils prior to works taking place.~~

~~b. Stability.~~

~~To ensure stability of cut batters and fill batters created by earthworks, and of the earthfills and cut platforms themselves under static, live and seismic loading.~~

~~The avoidance of creating or exacerbating erosion or slope instability arising from earthworks, including the provision measures or works required for monitoring or securing stability and soils on-site.~~

~~c. Safety and suitability~~

~~— To construct earth fills using a quality of material and standard of compaction which can demonstrably support anticipated building forms, as well as a reasonable assessment of possible future usage.~~

~~d. Aesthetically compatible.~~

~~To ensure that the topography altered by earthworks is in keeping with the surrounding environment.~~

~~e. Serviceability.~~

~~To construct earthworks so that modifications to ground levels do not adversely affect the capability of existing utilities to service the modified area, or surrounding ground. To avoid the diversion of stormwater from its natural catchment, the creation of increase flood risk or other hazards in consequence of earthworks.~~

~~The avoidance of any actual or potential effect resulting from discharge of soil or other materials arising from earthworks onto any road or reticulated infrastructure.~~

~~f. Cultural and heritage items.~~

~~i. — To ensure that earthworks do not impact on historical and archaeological sites and that areas of significant botanical importance or animal habitat are preserved.~~

~~— The avoidance or mitigation of cultural effects on tangata whenua where necessary, in particular, where there are large areas of excavations proposed, or where there are likely to be cultural values of some significance, including the provision of:~~

- ~~• — cultural and/or archaeological assessments;~~

- ~~enabling site access;~~
  - ~~appropriate site work observation; and~~
  - ~~any other measures required to avoid effects on cultural heritage and historic heritage by earthworks, where deemed necessary.~~
- ii. ~~The identification of heritage sites and values and the avoidance or mitigation of adverse effects on historic heritage, including natural and built heritage and archaeological sites, including undertaking investigations as relevant and obtaining appropriate authorities under the Historic Places Act 1993 where necessary.~~
- iii. ~~The need to place and advice note on the decision of consent.~~
- g. ~~Security.~~  
~~The developer shall provide Council with a record of the works carried out by way of a Certification, verifying that the works have been completed to an agreed standard, from an independent qualified and suitably experienced professional engineer.~~
- ~~The ability of any new allotment to be free of instability, erosion, rockfall or any other geotechnical hazards to provide a long term safe and suitable allotment appropriate for the intended future use after earthworks. This may include a requirement for a report, where deemed necessary, in sufficient detail and with appropriate expertise that reflects the complexity of any risk associated with pre and post works.~~
- h. ~~Amenity.~~  
~~The avoidance or mitigation of airborne dust by dust management measures, including specific works to are required to avoid or mitigate dust settling off site.~~
- ~~The mitigation or avoidance of excessive noise and vibration.~~

## 23.14 NETWORK UTILITY

**Note:** The following criteria relate only to activities in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.

## .....23.15 ~~STREETSCAPE AND LANDSCAPING~~

**Note:** ~~The following criteria relate only to activities in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport~~

## ~~Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.~~

**23.15.1** ~~Streetscape and landscaping shall be designed, constructed, planted and maintained in a manner that:~~

- ~~a. Provides amenity that appropriate for its location.~~
- ~~b. Provides interest and comfort to public spaces.~~
- ~~c. Contributes to a sense of community and character.~~
- ~~d. Provides street furniture that is sufficiently durable.~~
- ~~e. Avoids conflict with network utilities and reticulated infrastructure.~~

**23.15.2** ~~Appropriateness.~~

~~Planting and other landscaping shall be appropriate to and compatible with the local environment. Species selection shall be based on consideration of the following:~~

- ~~• ability to survive on the site;~~
- ~~• sympathetic to the scale of the section and berm sizes;~~
- ~~• consistent with neighbouring landscape features.~~

**23.15.3** ~~Maintainable and durable.~~

~~Planting and other landscaping features shall be easily maintained and minimise overall life cycle costs inclusive of establishment, maintenance and renovation.~~

~~In a traffic island, the subgrade shall be removed to the required depth.~~

**23.15.4** ~~Other services.~~

~~Landscaping shall not cause, or potentially cause, interference or damage to roadways and utility services, or increase the costs of maintenance of those services. Vegetation proposed to be planted in close proximity to electric lines should be selected and located in a manner that will not result in vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.~~

**23.15.5** ~~Reserve areas.~~

~~Public land for reserves shall only be created where there is an identified need. Council reserves shall have appropriate legal protection in accordance with the Reserves Act 1977.~~

**23.15.6** ~~Amenity.~~

~~The type, height and placement of planting in public areas should be such that it minimises opportunity for concealment, vehicle operators' vision, reduced sunlight penetration or other adverse effects on the use of adjacent land. No planting or landscape feature shall obstruct traffic, pedestrian movement or traffic visibility.~~



### **23.15.7 Maintenance of landscaping.**

Appropriate maintenance of landscaping works shall be completed sufficiently to ensure planting and other landscaping is established and able to develop without assistance, for a period of 1 year.

### **23.15.8 Lawn areas.**

Prior to hand over, any lawn areas must be weed free and the surface evenly vegetated and readily mown. Appropriate ornamental species shall be used. (Pasture grass is unacceptable).

### **23.15.9 Street furniture.**

Provision of street furniture that:

- i Is durable.
- ii Provides comfort.
- iii Creates a point of interest in public spaces.
- iv Encourages community interaction.
- v Is safe for its anticipated use.

### **23.15.10 Design features.**

The development of streetscape and landscaping will avoid creating spaces that contribute to a feeling of a lack of safety. This includes the avoidance of the creation of places of entrapment and providing for passive surveillance of streets and public spaces.

Landscaping shall take into account the provision of natural light to the living and outdoor areas of residential properties in terms of appropriate location and species.

Note: If provision of fruiting trees is proposed this should be discussed with the Council's Parks and Reserves and Infrastructure Departments as to its appropriateness prior to an application for subdivision being made.

## **23.16 GENERAL URBAN DESIGN CRITERIA**

Note: 1. The following criteria relate only to activities in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.

2. The level of assessment shall take into account scale, scope and complexity of proposal.

### **23.16.1 Purpose.**

To provide for good quality design in infrastructure and subdivision in order to provide liveable human scale development.

### **23.16.2 Low impact development.**

~~Subdivision is required to compliment and retain natural features and processes in the first instance. In particular, development shall demonstrate how the application has:~~

- ~~a. Retained vegetation which contributes to the overall amenity and character of the site and neighbourhood where possible, or mitigated the loss of pre-development vegetation.~~
- ~~b. Maintained hydrological balance or has mitigated post development runoff.~~
- ~~c. Limited alterations to natural features and landforms to minimal scraping of topsoil to create building platforms and transport infrastructure.~~
- ~~d. The extent to which stormwater treatment contributes to an attractive public realm or provides ecological value.~~

### **~~23.16.3 Context.~~**

~~Applications for subdivision shall demonstrate an understanding of the setting in which subdivision occurs by promoting:~~

- ~~a. The enduring aspects of site and district level focal points, including any significant vegetation, and natural and cultural landmarks and associations.~~
- ~~b. The integration of public parks, open space, amenities and community facilities.~~
- ~~c. Existing and proposed land uses (living, employment and recreation uses) and required movement networks.~~
- ~~d. Natural environmental processes and features such as hydrological flows, solar orientation, climate, topography and ground conditions.~~
- ~~e. The mitigation of downstream limitations on servicing infrastructure.~~
- ~~f. Subdivision that relates well to its surroundings, cultural features, and makes use of existing features and amenities, such as the retention of trees and water features, view shafts, or good use of the rural interface to enhance the urban area.~~
- ~~g. The importance of archaeological and cultural sites and areas.~~

### **~~23.16.4 Character.~~**

~~Subdivision design and construction shall demonstrate how character is maintained and enhanced by:~~

- ~~a. Retaining and utilising the existing natural and physical environmental features including trees, waterways, built and historic heritage, significant topographical features of the subject site and surrounding areas.~~

- b. ~~Protecting and enhancing built, cultural and visual landscape features, landforms and significant view shafts.~~
- c. ~~Respecting and integrating features of significance culturally and natural environmental processes.~~

#### **~~23.16.5 Connections.~~**

~~The connectivity of a subdivision shall be demonstrated by:~~

- a. ~~The existence and use of green connections and corridors.~~
- b. ~~The degree of permeability of the roading layout.~~
- c. ~~The number of connections between the roading network, recreation spaces, other neighbourhoods and natural features.~~
- d. ~~The incorporation of multi-modal transport options.~~
- e. ~~Implementing the Shared Pathways Strategy and Wanganui Urban Transport Strategy.~~
- f. ~~The convenience of a development to community infrastructure such as schools, shops, public open space and neighbourhood commercial zones.~~

#### **~~23.16.6 Custodianship.~~**

~~Applications for subdivision shall identify how the proposal will have achieved custodianship by:~~

- a. ~~Demonstrating consultation and communication with the affected community including Iwi and interest groups.~~
- b. ~~Providing spaces that are places of community interaction and ownership including streets, recreational areas and focal points.~~
- c. ~~Enabling connections with places of value to the community.~~

#### **~~23.16.7 Crime prevention through environmental design.~~**

~~Subdivision design shall illustrate how CPTED Principles have been implemented by promoting the following:~~

- a. ~~Good visibility, sightlines and casual surveillance (overlooking) of public or publicly accessible spaces.~~
- b. ~~Safe, direct routes and connections.~~
- c. ~~Lighting and illumination that is appropriate to particular spaces and their anticipated uses.~~
- d. ~~Avoidance of the creation of places of entrapment.~~

## **23.17 EARTHWORKS**

**Note:** The following criteria relate only to activities in the Residential, Rural Production, Rural General, Rural Lifestyle or Rural Settlement, Airport Enterprise, Neighbourhood Commercial or Reserves and Open Spaces zones.

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