

CONTENTS

SECTION 12 – RESERVES AND LANDSCAPING

12.1	REFERENCED DOCUMENTS	1
12.2	RESERVE DESIGN.....	1
12.2.1	General	1
12.2.2	Neighbourhood Parks.....	2
12.2.2.1	General Design Principles and Requirements	2
12.2.2.2	Design Criteria	3
12.2.3	Esplanade and Foreshore Reserves	5
12.2.4	Sportsfield Reserves	6
12.2.5	Conservation and Landscape Reserves	6
12.2.6	Horticultural Parks.....	6
12.2.7	Cemeteries	7
12.2.8	Utility Reserves.....	7
12.3	RESERVE DEVELOPMENT	7
12.3.1	Pedestrian/Cycle Access.....	7
12.3.2	Vehicle Access	8
12.3.3	Boundary Fencing	8
12.3.4	Vehicle Barriers	9
12.3.5	Lighting	10
12.3.6	Signs.....	10
12.3.7	Park Furniture	10
12.3.8	Play Equipment.....	11
12.4	PLANTING.....	11
12.4.1	General Requirements	12
12.4.1.1	Approval of Design	12
12.4.1.2	Species Selection	12
12.4.1.3	Quality Control	13
12.4.1.4	Weed Control	13
12.4.1.5	Maintenance Requirements.....	13
12.4.2	Amenity Planting.....	14
12.4.3	Riparian Planting.....	15
12.4.4	Planting Associated with Stormwater Devices	15
12.4.5	Street Tree Planting	16
12.4.6	Street Gardens	17
12.5	PRESENTATION OF RESERVES TO VEST	17

12. RESERVES AND LANDSCAPING

12.1 REFERENCED DOCUMENTS

Copies of these documents are available on the Council website or can be obtained from Nelson City Council.

- Nelson City Council *Parks and Reserves Activity Management Plan*
- Nelson City Council *Safer by Design - Crime Prevention Through Environmental Design (CPTED) Guidelines*
- Nelson City Council *Outdoor Sign Manual*
- Nelson City Council / Department of Conservation *Living Heritage - Growing Native Plants in Nelson*
- Nelson City Council / Department of Conservation Nelson *Streamside Planting Guide*
- Nelson City Council *Nelson Resource Management Plan*
- Nelson City Council *Street Tree Guidelines*

12.2 RESERVE DESIGN

12.2.1 General

- a) A range of parks and reserves are to be provided throughout the city that are accessible and well used by residents and that contribute to quality of life.
- b) Council purchases and develops reserve land for the following management purposes:
 - 1) Neighbourhood Parks
 - 2) Esplanade and Foreshore Reserves
 - 3) Conservation and Landscape Reserves
 - 4) Sportsfield Reserves
 - 5) Horticultural Parks
 - 6) Cemeteries
- c) Where land is used primarily for stormwater management purposes, this may be vested as utility reserve and maintained by Council but will not be purchased by Council.
- d) It is generally expected that land vested as reserve within new developments will be for the purpose of neighbourhood park, esplanade reserve, and/or utility reserve.

- e) Council may consider the purchase of land for other reserve management purposes in consultation with the landowner. See the Nelson City Council *Parks and Reserves Activity Management Plan* for further information on park and reserve types and their management purposes.

12.2.2 Neighbourhood Parks

General outcomes required are to provide attractive well maintained areas of open space close to local communities within Nelson that may be developed with amenity plantings, paths, park furniture and playgrounds and are available for passive and active recreation. These areas are to be linked with the road pattern to provide an integrated open space framework in the development.

12.2.2.1 General Design Principles and Requirements

- a) It is important to ensure that neighbourhood parks are designed at the time of subdivision, and constructed as soon as practicable after the subdivision is completed, so that:
- 1) The arrangement of lots can positively relate to the reserve.
 - 2) Buildings can be sited and orientated with certainty regarding relationships between them and the reserve.
 - 3) The reserve construction (play equipment, landscaping etc) is completed within two years of titles being issued for the adjoining residential lots, thereby ensuring residents gain the benefits of the reserve straight away.
 - 4) The use of reserve land as storage and access to residential building sites by contractors is avoided, as are the subsequent compaction, and surface disturbance associated with it.
- b) If Council's Parks and Reserves Activity Management Plan has identified the need for a neighbourhood park in the area, or a neighbourhood park is identified in a structure plan/outline development plan, the applicant shall consult Council and work with the Manager Community Projects on the suitability, design and location of the reserve (See park design criteria in section 12.2.2.2 below). Council will then provide the applicant with a concept for the reserve (landscaping and facilities) at no cost to the applicant. The concept shall be integrated with the intended subdivision design plan at no cost to the Council. This concept is to be included with the subdivision consent application and the vesting of the reserve land in Council will be made a condition of the consent. A condition of consent will also require that a consent notice be imposed on the title of the reserve to require that the reserve is developed generally in accordance with the concept plan approved as part of the subdivision consent application.

- c) Applicants will be able to gain reserves contribution credits for the land to be vested in Council as part of the subdivision. The landscaping and facilities in the reserve will be paid for and constructed by Council (refer item (e) below).
- d) Applicants are encouraged to use the Major Projects Team and/or the Urban Design Panel to facilitate the integrated design of the reserve with the subdivision, and ensure that all urban design goals are met through the overall design of both private and public spaces, and any areas for utility or transportation purposes.
- e) The reserve is to be formed and presented as reserve to vest in accordance with section 12.5.
- f) Council will undertake construction of the reserve (landscaping and facilities) within two years of section 224(c) certificate issue. Applicants are to provide Council's Manager Community Projects with 2 months notice of their intention to seek section 224(c) certificate so that the works can be programmed into Council's construction schedule.
- g) Each neighbourhood park location has a unique set of conditions which requires site-specific design. However, general principles for the design of neighbourhood parks include:
 - 1) Wide, open road frontage to enhance visibility and safety.
 - 2) Amenity plantings around the perimeter and within the reserve that do not obstruct sightlines and visibility through the park.
 - 3) Plantings of larger tree species for amenity and to provide shade in the summer. Consideration to be given to species and location.
 - 4) Any play equipment and/or seating will generally be located to capture the highest sunlight and daylight hours in winter. Play areas may include landscape elements as well as formal play equipment such as swings and slides. Not all neighbourhood parks will have play equipment.
 - 5) Low and/or natural barriers and fencing with neighbouring properties encouraged to enhance safety through surveillance.

12.2.2.2 Design Criteria

A neighbourhood park shall, at a minimum, meet the following criteria:

- a) Size and topography
 - 1) Minimum area to be 2500m² with flat useable land to be no less than 1250m². Where it is not possible to create an area of flat space for recreational purposes within the subdivision, walking/cycling connections to existing recreational open space must be incorporated into the subdivision design.

- 2) Even and regular shape that allows for maximum usable space and ease of maintenance.
- 3) Where neighbourhood park provision is already adequately provided for (i.e. properties can access a neighbourhood park within 400m), an area of land may be considered for vesting as reserve if the land is taken to protect trees, buildings, sightlines, views, landscape character, protect biodiversity, enhance local amenity or provide visually appealing areas for passive recreation.

b) Visibility and accessibility

- 1) Neighbourhood parks shall be highly visible to maximise visual amenity, safety and open space benefits for the surrounding community and to allow them to be easily located, including by visitors to the area. They will be accessible to all neighbourhoods and communities within Nelson. As a guide a neighbourhood park will be located within 400m of properties within residential areas. They are to:

- Have a minimum 30 metre road frontage on at least one side.
- Preferably be located on a corner site.
- Be located on a through road and not on a cul-de sac.
- Have additional access points provided to connect to the road network.
- Have access for maintenance vehicles and equipment.

c) Orientation and Safety

- 1) The use of reserves should be encouraged by locating them to maximise favourable conditions and providing surveillance from neighbouring properties.
- 2) Sites are to be located and orientated towards the sun to maximise daylight and sunlight hours and developed so as to reduce draft, shading and cold.
- 3) Sites are to be orientated to encourage neighbouring properties to have living spaces facing onto the reserve.
- 4) Ensure that potential hazards to public safety, such as site stability or contamination, do not exist or it is possible to remedy or mitigate any hazard.

- d) Connection to surrounding environment
- 1) Connecting existing reserves, accessways and open space provides routes and return loops for recreational use, encourages sustainable transport choices by allowing for continuous off-road journeys and can contribute to creating larger open space areas. Consideration should be given to how the development will link to the surrounding landscape including existing areas of open space, and to other public areas, such as schools, town centres, community facilities or public transport routes.
 - 2) Gaps in neighbourhood park provision as identified in the Nelson City Council *Parks and Reserves Activity Management Plan* can be used to determine appropriate sites.
- e) Natural features
- 1) Natural features or features of local interest or significance such as streams, remnant native forest or specimen trees should be included within neighbourhood parks where appropriate.
- f) Stormwater management
- 1) Where appropriate the provision of recreational open space and stormwater management can be combined within a development. Land will be vested as reserve if it meets the neighbourhood park criteria detailed above and:
 - Will not have flooding or ponded stormwater for storm events up to and including a 5 year design storm (Q5 or 20% AEP).
 - Of soil type/s and a water table such that flooding is no deeper than 200mm and drains away within 24 hours.
 - 2) All stormwater detention or treatment devices including stormwater reticulation shall be designed and constructed to the requirements of Section 5 Stormwater of the Nelson City Council Land Development Manual.

12.2.3 Esplanade and Foreshore Reserves

- a) General outcomes required are that riparian and coastal margins of high value are protected and enhanced and public access is provided to rivers, streams and coastal areas. Esplanade reserves also provide important opportunities for connecting the city via shared use paths for pedestrians and cyclists.
- b) The location and minimum width for esplanade reserves is prescribed within the Nelson Resource Management Plan (Appendix 6). Council may seek to purchase additional areas to add to the amenity and recreational value of the reserve.

- c) Consideration should be given to how any esplanade reserve in the development will link to the surrounding landscape including the road network, existing areas of open space and to other public areas. Paths on esplanade reserves shall be provided where it is an integral part of the walking/cycling connection within the subdivision.
- d) Given the generally long and linear nature of esplanade reserves, visibility and accessibility shall be maximised to enhance the amenity, safety and open space benefits for the surrounding community and to allow them to be easily located. An access point should be provided approximately every 250-300 metres in urban environments and surveillance from neighbouring properties through the subdivision design should be encouraged.
- e) Stream banks shall be presented in a stable and natural state. See section 12.4.3 for planting requirements of riparian areas.

12.2.4 Sportsfield Reserves

- a) General outcomes required are to provide a range of sportsfields that are accessible and meet the changing needs of Nelsons residents.
- b) Sportsfield Reserves are distributed throughout the city on large flat versatile sites. Council may seek further land as required in the future for this purpose. Future provision needs for sportsfields are identified in the Nelson City Council *Parks and Reserves Activity Management Plan*.

12.2.5 Conservation and Landscape Reserves

- a) General outcomes required are to protect and restore indigenous vegetation, habitats and ecosystems, protect archaeological and historic sites and values, maintain and restore natural landscape characteristics, especially those that form the Nelson city backdrop, and allow and encourage public use of reserves.
- b) Further purchase of land for conservation and landscape reserves may occur where there are accessible areas of high or potentially high natural or heritage values that require protection and management or where the land may enhance an existing conservation or landscape reserve by providing a buffer.

12.2.6 Horticultural Parks

- a) General outcomes required are to provide a flagship role for the city's identity and heritage, by providing a number of intensively managed reserves that showcase a wide range of horticulture, plant collections and landscape features and styles.

- b) Further purchase of land for horticultural parks may occur if a property containing significant gardens, landscaping or treescape worthy of protection and access by the public becomes available for sale.
- c) Land may also be purchased to enhance or expand existing horticultural parks.

12.2.7 Cemeteries

- a) General outcomes required are to provide cemeteries in a park like setting that meet community expectations and are consistent with the community's beliefs, feelings and personal choice.
- b) Several active and historic cemeteries are currently located within the city. Council may seek to purchase additional land for this purpose, particularly land adjacent to existing cemeteries.

12.2.8 Utility Reserves

- a) General outcomes required are to provide for natural stormwater management within developments that also confer additional benefits such as providing habitat for native species and/or contributing to amenity and providing a sense of openness within the development.
- b) Where it is not possible to combine recreational open space and stormwater management and where land is used primarily for stormwater management purposes (i.e. for storm events up to and including a 5 year design storm (Q5 or 20% AEP) this may be vested as a utility reserve at no cost to Council.
- c) Land used for utility purposes shall be integrated into the design of the development and provide additional benefits so that it does not limit the provision and use of open space for the community to enjoy. It shall be enhanced to provide amenity e.g. through plantings. See section 12.4.4 for planting requirements associated with stormwater devices.

12.3 RESERVE DEVELOPMENT

12.3.1 Pedestrian/Cycle Access

- a) Generally accessways to reserves and paths within reserves, where they form an integral part of the walking/cycling connection within the subdivision, will be installed by the applicant prior to vesting of the reserve.
- b) Linkages to reserves for pedestrians and cyclists should create an attractive, friendly, connected, safe and accessible environment.
- c) Generally paths in reserves and on accessways to reserves are required to be 2 metres wide to allow for shared use by pedestrians and cyclists.

- d) The minimum legal width of any accessway shall be 6 metres including berms and landscaping. Refer to SD 429 for detailed design information.
- e) Ensure there is a clear space buffer on either side of paths of at least 1 metre between the height of 1.2m and 2.4m, to ensure adequate visibility for cyclists. Furniture should be set back at least 1 metre from paths and any plant species should be selected so that future growth will not encroach into the clear space buffer.
- f) Avoid steps to allow for cycle and mobility vehicle use of paths and accessways. Where steps are required then a half-round open concrete channel should be formed adjacent the steps to assist cycle movement.
- g) Consider the location of the path and plantings on reserve accessways to ensure the path receives maximum sunlight hours in winter and that planting minimises the ability to create frosting.
- h) For the standard of formation for paths and tracks within reserves see Table 12-1.
- i) Path surfacing and construction must comply with Section 4 Transport of the Nelson City Council Development Manual.

12.3.2 Vehicle Access

- a) Generally vehicle access will be installed by the applicant prior to vesting of the reserve.
- b) Vehicle access points are required for vehicles to undertake mowing, rubbish collection, maintenance and for emergency vehicles. Vehicle access points must be wide enough to allow for heavy machinery (minimum 4 metres). Vehicle crossings must comply with Section 4 Transport of the Nelson City Council Development Manual.
- c) Access roadways and off-street parking may be required for reserves such as sportsfields, horticultural parks, the starting point of walking tracks and neighbourhood parks receiving high-use or serving a regional function. Consult the Council to see if parking areas and access roadways are required. The design and construction of roadways, parking areas and vehicle crossings must comply with Section 4 Transport of the Nelson City Council Development Manual.

12.3.3 Boundary Fencing

- a) Generally boundary fencing will be installed by private property owners following vesting of the reserve.
- b) The concept of open frontage onto reserves and reserve accessways is promoted. A sense of openness between residential properties and reserves or accessways is required to maintain streetscape amenity, encourage a sense of community, provide

opportunities for passive surveillance and improve safety in public spaces.

- c) This ranges from no fence so that private gardens merge with the reserve, to living barriers or a low fence up to 1.2m high.
- d) Hedges, climbers on trellis or other green living barriers are preferred up to a maximum height of 1.2m.
- e) The maximum height of a fence within 1.5 metre of, or on the boundary with a reserve, reserve accessway or other publicly owned open space is 1.2 metres.
- f) For subdivisions creating private lots adjoining a reserve or proposed reserve, a condition of the consent shall be that the applicant shall enter into a fencing covenant for all lots adjoining reserves within the subdivision, with the covenant to specify the height (maximum 1.2 metres high) and style of the fence. The applicant shall consult Council and work with the Manager Community Projects on appropriate fencing for the location.
- g) Where board or paling fences are used, structural railings shall be on the residential property side of the fence and the timber shall be left natural (not painted).

12.3.4 Vehicle Barriers

- a) Generally vehicle barriers will be installed by the applicant prior to vesting of the reserve.
- b) Barriers between reserves and the road are generally not encouraged. Where possible planting and landscaping should be used as the means of deterring unauthorised vehicles.
- c) Where vehicle barriers are required to control unauthorised vehicles, this may be in the form of a standard non-mountable kerb, or a physical vehicle barrier or bollards. Vehicle barriers should meet the following objectives:
 - 1) Prevent vehicles from accessing reserve land
 - 2) Continue to allow pedestrian and cycle access
 - 3) Be of a design that ensures consistency with other reserve structures and furniture
 - 4) Does not adversely affect the visual amenity of the area
 - 5) Does not greatly increase maintenance requirements
 - 6) Able to withstand or discourage vandalism pressure
- d) Where bollards are required a standard wooden bollard and chain fence shall be constructed on road frontages to reserves (other than entrances).

- e) Bollards should be placed to allow for easy mowing and maintenance and either be on a mowing square (350 x 350mm) or incorporate a mowing strip and should be spaced either 2 metres apart or 3 metres apart with a connecting chain.
- f) See SD 1205 for standard height and construction. Dimensions 700mm height, timber square 125mmx125mm, 30° point flat.

12.3.5 Lighting

- a) Generally reserve lighting will be installed by Council following vesting of the reserve.
- b) The Council prefers to light only those paths, accessways and cycleways that receive high night-time use. Lighting shall be provided where necessary in a manner that is consistent with the Nelson City Council *Safer by Design - Crime Prevention Through Environmental Design (CPTED) Guidelines*. Consideration shall be given to the brightness, placement and coverage of any lights to ensure adequate illumination where necessary and to prevent adverse effects on adjacent landowners from light spill.
- c) Lighting standards for neighbourhood parks shall be the Salisbury Short with Cardiff Column or similar design as approved by Council.
- d) For other locations such as major access roads and car parks within reserves the standard Type C standard streetlight may be used as approved by Council.

12.3.6 Signs

- a) Generally reserve signs will be installed by Council following vesting of the reserve.
- b) Signs for parks and reserves shall be installed as per the requirements of the Nelson City Council *Outdoor Sign Manual*.

12.3.7 Park Furniture

- a) Generally park furniture will be installed by Council following vesting of the reserve.
- b) Park furniture includes seating and picnic tables, rubbish bins, drinking fountains and other structures such as barbeques and boardwalks. Obtain approval from the Council for any park furniture.
- c) Park Furniture shall be set back a minimum of 1 metre from any path or cycleway, and shall not obstruct any pedestrian thoroughway of public spaces.
- d) See SD 1203 for standard height and construction of a park bench seat.

- e) It is desirable that in areas likely to be used by elderly, infirm and disabled people, the park bench seat is designed so that it has:
- Four legs securely fixed to a concrete or paved slab that exceeds the foot print of the seat by 300mm all round
 - A comfortable back that is angled no more than 10 degrees from the vertical
 - No gap between the seat base and seat back that is wider than 110mm
 - An arm rest preferably at both ends, the top of which is between 240mm and 260mm above the seat base
 - Front edge of seat to be no more than 450mm above slab (ground level) and no less than 420mm
 - A tapping rail between the front legs (less than 150mm above ground).

12.3.8 Play Equipment

- a) Play equipment will be installed by Council following vesting of the reserve.
- b) The Council's objective is to provide interesting playgrounds that meet the needs of the local community. Obtain approval from the Council for any play equipment within a reserve. It is important that any proposal integrates the play equipment into the landscape design for the reserve. The use of natural features in conjunction with formal play equipment is desirable.
- c) Any equipment and surfacing installed shall comply with NZS 5828:2004, Playground Equipment and Surfacing. In addition all the equipment and surfacing shall meet the requirements of required building or resource consents.

12.4 PLANTING

- a) This section applies to the provision of planting to enhance the environment in any part of a subdivision or where required as a condition of subdivision consent. Where native planting is desired or required, it should be read in conjunction with the Nelson City Council / Department of Conservation *Living Heritage – Growing Native Plants in Nelson 2003* and the *Nelson Streamside Planting Guide*.
- b) The first part of this section provides general requirements of planting and the second part contains details for different types of planting.

12.4.1 General Requirements

12.4.1.1 Approval of Design

a) Site-specific planting plans are to be submitted to Nelson City Council for approval. These shall be based on achieving planting requiring a minimum of long-term maintenance as well as objectives for different planting types (sections 12.4.2 - 12.4.6). Plans should include at least the following:

- 1) Plant species and spacing
- 2) Timing of planting
- 3) Weed control methodology
- 4) Maintenance methodology and plant replacement after planting and during establishment
- 5) Protection of plants against pests.
- 6) The Parks and Facilities Manager or his/her representative will review the drawings and return them to the applicant's representative, detailing any alterations that are required. If adjustments to the design are required a new set of amended drawings shall be submitted to the Council prior to approval being granted. Only drawings stamped and signed by the Parks and Facilities Manager or authorised representative shall be deemed approved drawings.

12.4.1.2 Species Selection

a) Where plants are part of an environmental planting (i.e. riparian or restoration planting) they shall be eco-sourced (eco-sourced plants are those which are grown from seeds or cuttings collected from a naturally-occurring vegetation in a locality close to where they are replanted) and selected from the Nelson City Council / Department of Conservation *Living Heritage – Growing Native Plants in Nelson*.

- b) The following matters should be considered for correct species selection:
- 1) Overall composition
 - 2) Suitability to environmental conditions e.g. ground moisture, wind, etc
 - 3) Height and spread when mature
 - 4) Pest and disease resistance
 - 5) Non-suckering habit or seed spreading
 - 6) Not a weed species
 - 7) Longevity

- 8) Shading consistent with location
- 9) Minimum maintenance requirements.

12.4.1.3 Quality Control

- a) All plants shall be sound, healthy, vigorous and free of any defects and pests which may be detrimental to plant growth and development. In addition plants should have vigorous root and branch systems and plants supplied in pots must not be root bound.

12.4.1.4 Weed Control

- a) On-site noxious weeds are to be eliminated and adequate follow-up is required during the establishment period.
- b) Any chemicals used for weed control in riparian areas need to comply with the Freshwater Rules in the *Nelson Resource Management Plan*.
- c) Where soil is imported it should be free of noxious/environmental weeds and from a source that is known not to introduce problem weeds and pests.

12.4.1.5 Maintenance Requirements

- a) Any plantings carried out by the applicant (this will mostly relate to riparian and street planting and planting associated with stormwater devices) shall be maintained for a period of at least two years after the issue of Council 224C.
- b) Riparian and other restoration planting or mass planting of groundcover plants needs to be maintained at least until canopy cover has been achieved to ensure that plants have established and can be taken over for maintenance. This may exceed the two year maintenance period as indicated above.
- c) Plants shall be kept free of pests and diseases in order to achieve their optimum performance and visual amenity.
- d) Any plants that have died in the maintenance period need to be replaced.
- e) Where present, stakes and ties shall be maintained and replaced, as required, in order to fulfil their intended purpose without causing damage to the plants.
- f) Where mulch or bark is used (i.e. street gardens) it must be kept at settled thickness as specified, and shall be kept from hard surfaces.
- g) For the duration of the planting maintenance period the planting shall be maintained at the cost of the developer and to the satisfaction of the Manager of Parks and Facilities.

12.4.2 Amenity Planting

- a) A site-specific planting plan and specifications shall be submitted to Nelson City Council for approval.
- b) Amenity plantings within neighbourhood parks and accessways shall be provided in a manner that creates pleasant spaces for active and passive recreation while maintaining enough open space to maintain a safe environment.
- c) They will be designed to meet the following objectives:
 - 1) Functional
 - Define space and create a vegetation barrier
 - Provide shade and shelter
 - Screen unsightly outlooks
 - Control of erosion
 - Enhancement of recreation and amenity value
 - Provide habitat and encourage bird life
 - Restore native biodiversity where possible
 - 2) Aesthetic
 - Frame views
 - Emphasise landscape features
 - Soften hard surfaces
 - Provide colour, form and texture
 - 3) Safety
 - Meet Crime Prevention Through Environmental Design guidelines
 - Maintain adequate visibility for road and path users
 - Maintain adequate site lines for people within the park
 - Adequate separation from parking areas
 - Avoid obstructions to pedestrians and cyclists

12.4.3 Riparian Planting

- a) A site-specific planting plan and specifications shall be submitted to Nelson City Council for approval.
- b) Riparian plantings shall be provided in a manner that enhances the natural environment while maintaining enough open space to maintain a safe environment.
- c) Species shall be planted according to the appropriate riparian zone to ensure that their function is optimised and plants don't create a barrier to water flows (i.e. where flax is planted too low on stream bank). See the Nelson City Council / Department of Conservation *Living Heritage - Growing Native Plants in Nelson* and *Nelson Streamside Planting Guide*.
- d) In general a minimum planting density of two plants per square metre is required in the margin zone. Spaces in the lower and upper bank zones will depend on the species selection but generally one plant per 1.5 m².
- e) They shall be designed to meet the following objectives:
 - 1) Functional
 - Stabilise banks
 - Slow run-off
 - Provide habitat and encourage bird life
 - Enhancement of recreation and amenity value
 - Restore native biodiversity to stream environments
 - Maintain adequate visibility to ensure safety within the reserve in particular where accessways and shared paths are adjacent
 - 2) Maintenance
 - Plants with strap-type leaves and plants likely to spread should be set back a minimum of 1.5 metres from the edge of paths
 - Ongoing weed control around plants to allow establishment

12.4.4 Planting Associated with Stormwater Devices

- a) A site-specific planting plan and specifications shall be submitted to Nelson City Council for approval.
- b) Planting shall be designed to meet the following objectives:
 - 1) Requiring a minimum of long-term maintenance

- 2) Support the functioning of the stormwater device
 - 3) Amenity
- c) The plans and specifications are to include at least the following:
- 1) Timing of planting
 - 2) Density
 - 3) Planting and maintenance methodology
 - 4) Plant replacement during maintenance period
 - 5) Water level control for maintenance / establishment period
 - 6) Protection of plants against pests
 - 7) Weed control methodology
- d) Plants shall be eco-sourced and shall be appropriate to, and tolerant of, particular site conditions. Plants shall be selected from the Nelson City Council / Department of Conservation *Living Heritage - Growing Native Plants in Nelson* and shall be appropriate to the area.

12.4.5 Street Tree Planting

- a) A site-specific planting plan and specifications shall be submitted to Nelson City Council for approval.
- b) Street trees should enhance and strengthen the existing character and intended future character of neighbourhood areas and integrate those areas. The planting shall provide maximum long term benefit to the public with minimum ongoing maintenance. It must not compromise the safe use of the legal road reserve or affect its structural integrity. Refer to Nelson City Council *Street Tree Guidelines* for guidance on selection of tree species.
- c) Plantings shall be designed to meet the following requirements:
 - 1) The minimum planting size of a landscape tree is 1.8m tall at the time of planting and 50mm stem diameter at chest height to minimise vandalism. Staking may be required.
 - 2) Watering during the first two summers if required as necessary to maintain tree health.
 - 3) Replace any that die or are damaged.
 - 4) The planting hole for the tree shall be excavated at least 1m deep and 1.5m square. Good quality soil/compost should be added and the walls of the hole to be loosened for root development.

- 5) Root barriers shall be used within berms along the road kerb edge and footpath edge to reduce the likelihood of footpath/road damage. These shall extend 4m each side of tree.
- 6) Tree pits "root directors" are required where trees are within asphalted or hard surfaces. The subgrade below the tree pit must allow roots to grow into the ground surface. It is to be free draining and shall not contain any rocks or concrete materials.
- d) Trees are generally to be planted in the front berm area between the kerb and footpath and not within the rear (services) berm or in road verges less than 1 metre in width.
- e) The mature size of any tree or garden planting is to be assessed for each planting location and is to be in scale with the surrounding street environment and the space available. Refer to Nelson City Council *Street Tree Guidelines* for tree species relative to city area and berm width.

12.4.6 Street Gardens

- a) A site-specific planting plan and specifications shall be submitted to Nelson City Council for approval.
- b) Gardens should add value to the overall streetscape and complement street tree planting, environment, and scale of surroundings.
- c) Plantings shall be designed to meet the following requirements:
 - 1) Street gardens shall be located so as not to compromise the integrity and efficient operation of infrastructural services or cause any obstruction to pedestrians.
 - 2) The number of species used should be minimised and ensure a unified result and species choice in street gardens to be considered for correct species selection.
 - 3) Where possible street gardens should support trees of a reasonable scale.
 - 4) Suitability to environmental conditions e.g. ground moisture, wind, etc.
 - 5) Pest and disease resistance.
 - 6) Minimum maintenance requirements.

12.5 PRESENTATION OF RESERVES TO VEST

- a) Land to be vested for reserves purposes shall as a minimum meet the following general requirements:
 - 1) All boundaries are to be surveyed and clearly pegged.

- 2) The land is to be free of noxious weeds, tree stumps (above and below ground) surface rocks and other specified unwanted vegetation.
- 3) The land shall be stable and not subject to a high erosion risk.
- 4) Specimen and riparian vegetation & habitats that will contribute to the reserve as identified by Council are to be left in place.
- 5) Stream banks to be maintained in a stable and natural state as required by Council.
- 6) All land subject to earthworks shall be covered with 150mm topsoil and sown in an approved dwarf rye grass mix with a minimum 80% coverage.
- 7) Grassed areas should be free of noxious or broadleaf weeds and mown to 75mm at least twice before presentation.
- 8) All previous fences, farm utilities, and building remains (unless retained for heritage value purposes) to be removed or disposed of to the satisfaction of the Council.
- 9) All rubbish to be removed or disposed of to the satisfaction of the Council.
- 10) A kerb crossing of 4 metres minimum width shall be provided at an approved access point for service vehicles to the reserve. Crossings shall be reinforced and not located adjacent to boundaries.

Table 12-1 Nelson City Council Path, Track and Road Category Standards within Reserves

Grade	Name	Use Suitability	Typical Examples	Formation, Width, Grade	Surface Material	Steps	Bridges / Culverts	Safety Rails and Barriers	Vegetation Clearance	Lighting	Furniture
1	Wheelchair Path	Wheel Chairs, Mobility Scooters, Pedestrians	Queens Gardens	Well formed even benched, with drainage W/T where needed. Width 1.6 – 2m. (Arterial paths usually 1.6). Grade max. 5 deg. Over 9m distance followed by 1m flat rest area. The transverse gradient of crowned or banked footpaths or ramps shall not exceed 1 in 50.	Paved or unpaved smooth surface.	Steps must have wheelchair by-pass.	Required for all streams to prevent any surface flow across track and ensure safety of user groups.	Where a significant hazard to anyone exists and cannot be avoided or mitigated. On one side of steps. Where there is a drop of >1m within 1m of track (as per SD 424 and 425).	From total track width, and to a height of 2.5m.	Lighting may be provided if the path is actively used at night.	Signs may be used to indicate directions, and times at entrance and junctions. Seats, picnic tables, bins, and platforms may be provided.
2	Path	Pedestrians, Cycles	Fairfield Park Paths	Well formed even, benched with drainage W/T where needed. Minimum width 1.6m. To be 2m where shared path required. Grade max. 10 deg. 15 deg. allowable over short distance (50m). The transverse gradient of crowned or banked footpaths or ramps shall not exceed 1 in 50.	Paved	Consistent run of steps allowable (three or more), max 0.18 height x 0.3m depth, at a maximum gradient of 45 deg. Provide Landing every 20 steps	Required for all streams, to prevent surface flow across track and ensure safety of user groups.	Where a significant hazard to anyone exists and cannot be avoided or mitigated. On one side of steps. Where there is a drop of >1m within 1m of path (as per SD 424 and 425).	From total track width, and to a height of 2.5m. If path is shared use, 1m clear space buffer on both sides of the path between 1.2-2.5m high.	Lighting may be provided if the path is actively used at night.	Signs may be used to indicate directions, and times at entrance and junctions. Seats, picnic tables, bins, and platforms may be provided. To be set back at least 1 metre from path.
2a	Cycleway	Pedestrians, Cycles	Railway Reserve	Same as 2 but width 2m-3m.	Paved or unpaved	No Steps	Required for all streams, to prevent surface flow across track and ensure safety of user groups.	Where a significant hazard to anyone exists and cannot be avoided or mitigated. Where there is a drop of >1m within 1m of path (as per SD 424 and 425).	From total track width, and to a height of 2.5m. 1m clear space buffer on both sides of the path between 1.2-2.5m high.	Lighting may be provided if the path is actively used at night.	Signs may be used to indicate directions, and times at entrance and junctions. Seats, picnic tables, bins, and platforms may be provided. To be set back at least 1 metre from cycleway.
3	Short Walk	Walkers (Short stop travellers)	Maitai River	Formed, or unformed. Width 0.75 – 2m. No obstacles on track. Grade max. 10 deg. 15 deg allowable over short distance (50m).	Paved or unpaved	Allowable, max 0.18 height x 0.3m depth, at a maximum gradient of 45 deg. Provide Landing every 20 steps	Required over all major water courses. Required over minor water courses where they cannot be safely crossed by day walkers when in flood.	Where a significant hazard to walkers exists and cannot be avoided or mitigated.	From total track width, and to a height of 2.5m. If path is shared use, 1m clear space buffer on both sides of the path between 1.2-2.5m high.	Not required	Signs may be used to indicate directions, and times at entrance and junctions. Seats, picnic tables, bins, and platforms may be provided. To be set back at least 1 metre from walk where possible.

Grade	Name	Use Suitability	Typical Examples	Formation, Width, Grade	Surface Material	Steps	Bridges / Culverts	Safety Rails and Barriers	Vegetation Clearance	Lighting	Furniture
4	Walking Track	Mountain Bikes/ Walkers (Day Visitors)	Grampians, Branford Park	Formed or unformed. May have obstacles to avoid. Width 0.75m – 2m. Grade max. 15 deg. 20 deg. allowable over max. 100m distance.	Gravel or natural ground / earth.	Allowable, max 0.18 height x 0.3m depth, at a maximum gradient of 45 deg. Provide Landing every 20 steps	Required over all major water courses. Required over minor water courses where they cannot be safely crossed by day walkers when in flood.	Where a significant hazard to Mountain bikers/walkers exists, and cannot be avoided or mitigated.	Sufficient clearance to ensure the track walking surface, the way ahead and furniture can be seen.	Not required	Signs may be used to indicate directions, and times at entrance and junctions. Seats, picnic tables, bins, and platforms may be provided.
5	Easy Tramping Track	(Back Country Comfort Seekers)	Dun Mountain Walkway	Minimum 0.3. Minimum 0.6 where extra width is required due to steep drop offs etc.	Natural ground / earth.	Allowable max 0.18 height x 0.3m depth, at a maximum gradient of 45 deg.	Required over all major water courses.	Where a significant hazard to walkers exists, and cannot be avoided or mitigated.	Sufficient clearance to ensure the track walking surface, the way ahead and furniture can be seen.	Not required	Signs may be used to indicate directions, and times at entrance and junctions. Seats, picnic tables, bins, not generally provided.
5a	Tramping Track	(Back Country Adventurers)	Water Reserves	Formed or unformed, markers used where track formation is unclear. May have obstacles to avoid. Width 0.3m in open flat country, – 0.6m where steep slopes and passing necessary. Grade max. – none.	Natural ground / earth.	Allowable max 0.18 height x 0.3m depth, at a maximum gradient of 45 deg.	Required over water courses where they cannot be safely crossed by day walkers when in flood.	Where a significant hazard to walkers exists, and cannot be avoided or mitigated.	Sufficient clearance to ensure the track walking surface, the way ahead and furniture can be seen.	Not required	Signs may be used to indicate directions, and times at entrance and junctions. Seats, picnic tables, bins, not generally provided.
6	Paved Roads & Car parks	2WD Vehicles, Mountain bikes, Walkers	Maitai Valley Rd	2 lane access, min. width 3m each lane and 1 footpath 1.4m wide. (Refer Section 4 'Transport' of the NCC Land Development Manual for appropriate widths). Grade max. 1 in 8 (7 deg).	AC , or chip seal To comply with Section 4 'Transport' of the NCC Land Development Manual.	No	Required over all water courses.	To comply with Section 4 'Transport' of the NCC Land Development Manual.	To comply with Section 4 'Transport' of the NCC Land Development Manual.	Required as necessary to comply with Section 4 'Transport' of the NCC Land Development Manual.	Signs indicating directions, speed, to comply with Section 4 'Transport' of the NCC Land Development Manual. Other furniture may be provided in appropriate places.
6a	Unpaved Roads	2WD Vehicles, Mountain bikes, Walkers, Horses	Grampians Road	2 lane access, min. width 3m each lane and 1 footpath 1.4m wide. (Refer Section 4 'Transport' of the NCC Land Development Manual for appropriate widths). Grade max. 1 in 8 (7 deg).	Gravel, AC, or sealed To comply with Section 4 'Transport' of the NCC Land Development Manual.	Not allowable	Required over most streams to prevent surface flow across road.	Not required	From total road width, surface, and to a height of 2.5m.	Required as necessary to comply with Section 4 'Transport' of the NCC Land Development Manual.	Signs indicating directions, speed, required to comply with Section 4 'Transport' of the NCC Land Development Manual. Other furniture may be provided in appropriate places.

Grade	Name	Use Suitability	Typical Examples	Formation, Width, Grade	Surface Material	Steps	Bridges / Culverts	Safety Rails and Barriers	Vegetation Clearance	Lighting	Furniture
7	4WD Tracks	4WD Vehicles, Horses	Sir Stanley Whitehead Park	Formed track, with water table drainage. Width 3 - 4 m. Grade max. 1 in 4 (14 deg).	Gravel, or natural ground / earth.	Not allowable	Not required. Where currently existing, they shall meet appropriate design standards.	Not required	From total track width, and to a height of 2.5m.	Not required	Signs indicating directions, distance, and to warn of other users. Other furniture may be provided in appropriate places.
8	Fire Breaks	Horses	Marsden Valley Reserve	Formed track, with cut off drainage minimum 3m, but variable depending on a range of factors. No Grade restriction.	Natural ground / earth.	Not allowable	Not required	Not required	No vegetation allowable above height of 150mm over full break width.	Not required	Furniture may be provided as appropriate.