CATHERINE McAULEY CATHOLIC COLLEGE LANDSCAPE MASTER PLAN REPORT

Prepared for Catholic Schools Office - Diocese of Maitland Newcastle

FOR SUBMISSION



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Report Summary

The Landscape Master Plan Report has been prepared by Moir Landscape Architecture on behalf of the Catholic Schools Office. The report documents the proposal for the Catherine McAuley Catholic College and has been developed as a supporting document for the Development Application of this site.

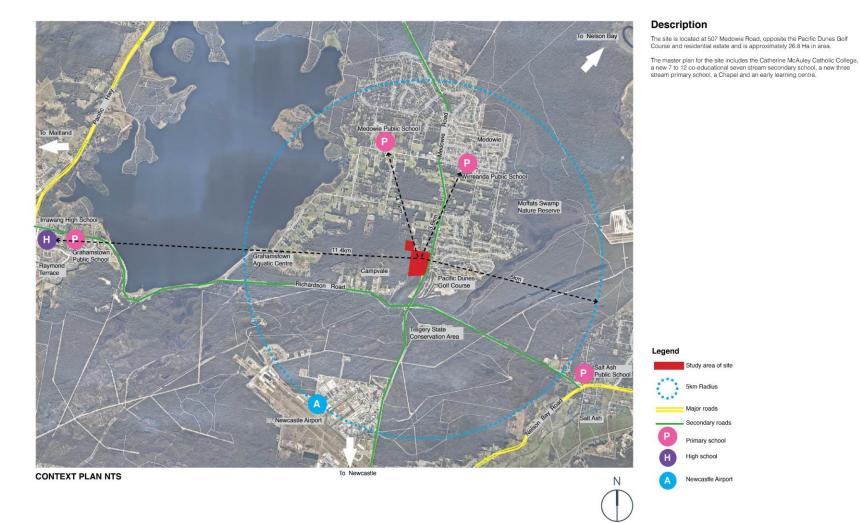
The report aims to describe the landscape concept design and does not provide detailed landscape resolution. The concept master plan will examine and outline opportunities to incorporate the surrounding natural environment, architecture, landscape and art across the site. It is intended to provide a design proposal which will support future detailed and construction design.

Key overlays to the proposal have been mapped and described in this report and include the following:

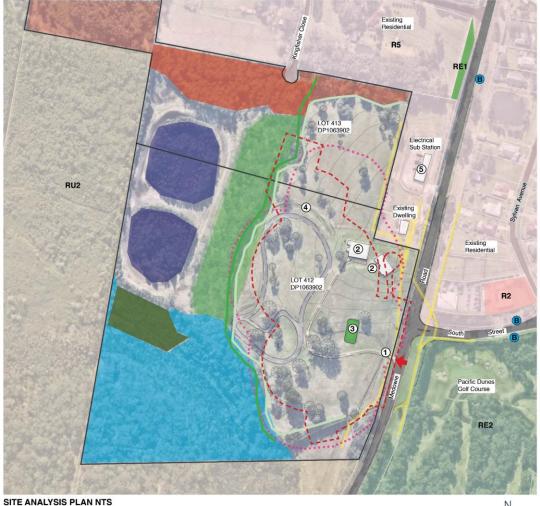
- Planting Strategy
- Access Control
- Way-finding and Signage
- Materials and Furnitures

Detailed plans document the Primary School, High School, Chapel and Early Learning Centre. Sketch sections support these plans.

Project Context



Site Analysis



Description

Analysis of the existing conditions and surroundings have been undertaken to ensure that the siting of new structures and landscape design is a site-specific response which embeds the new use carefully into the landscape.

The site is surrounded by Medowie Road to the east, an existing substation to the north east, rural residential lots to the north and low lying bushland / wetlands to the south and west.

Surrounding environment includes:

- SEPP 14 Wetland requirements
- Easements and clearances for the adjacent substation and power lines
- Likely upgrade of road intersection and road setbacks.
- Creek easement on southern boundary
- Vegetation edge and Hollow bearing trees

The land is zoned R2 low density residential and RU2 Rural Landscape.

Potential bush fire hazards were identified from Port Stephens Council bush fire prone mapping as occurring within the investigation area. The minimum Asset Protection Zone has been demonstrated on Site Analysis Plan refer to Bush fire

The existing site consisted a house and industrial sized shed, tennis court, windmill and paved /unpaved access tracks. A power line easement also exists running north to south within the lot immediately adjacent to the east boundary.

Land Zoning

RU2 Rural landscape

RE1 Public recreation

RE2 Private recreation

R2 Low Density Residential

(From PSC Local Environmental Plan 2013) • • • • • • • 50m Asset protection zone Forest

Riparian corridor

R5 Large Lot Residential

Woodland



Entry near South Street





Tennis court



Munition Store - Heritage Item



Legend

 Study area/ Lot Boundary Power pole alignment Existing Vehicular Access

Existing buildings

Existing tennis court

Existing Edge of Vegetation Existing Tunk Line

> Shrubland Forested wetland (From Bushfire Assessment Report)

Design Principles

Context, Built Form & Landscape







Spatial Planning

Accessible Outdoor Seating

Durable Outdoor Learning Space

Sustainable Environmental







Vegetable Garden

Seasonal Interests

Natural Environment









Outdoor Playground

Planter with Seating

Outdoor Classroom

Barrier Fence with Window Box

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

Principle 1-context, built form and landscape

Schools should be designed to respond to and enhance the positive qualities of their setting, landscape and Aboriginal cultural. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation and climate.

Principle 2-sustainable, efficient and durable

Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling.

Principle 3-accessible and inclusive

School buildings and their grounds should provide good wayfinding and be welcoming, accessible and inclusive to people with differing needs and capabilities.

Note, Wayfinding refers to information systems that guide people through a physical environment and

enhance their understanding and experience of the space.

Principle 4-health and safety

Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.

Principle 5-amenity

Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service

Principle 6-whole of life, flexible and adaptive

School design should consider future needs and take a whole-of-life-cycle approach underpinned by site wide strategic and spatial planning. Good design for schools should deliver high environmental performance, ease of adaptation and maximise multi-use facilities.

Principle 7-aesthetics

The built form should respond to the existing or desired future context, particularly, positive elements from the site and surrounding neighbourhood, and have a positive impact on the quality and sense of identity of

(From NSW Legislation, current version for 15 December 2017 to date)

Design Statement

Traditionally design always has been focused on the principles of surveillance and confinement of the students. Today however we know that a school's outdoor area plays a crucial role in students' development and well-being, learning attitude and interaction. Good physical surroundings can stimulate students to exercise, play and study.

The Early Learning Centre has students from 0 to 5-years-old. The outdoor play space focuses on amusement and creation. It utilises various hard and soft materials which can all be turned to playful uses. These will stimulate children's perception of the external environment.

Primary School students like to explore more about nature and science. The main schoolyard is framed by built school buildings. Thus between each building block the opportunity exists to connect with nature. Students and teachers can take the opportunity to hold outdoor classes in open lawn or informal seating areas. There is a Bush Tucker Garden for students' Aboriginal education program, Children are animated by different kinds of play. The outdoor play space encourages students to engage in a range of active movements. Active play is critical to children's physical and mental development.

High School's education and environment takes a crucial role in students' future life.

- Good communication and social life will develop students' optimistic personality.
- Physical exercises will build a healthy body.
- · Safe and healthy surroundings will make for a positive learning environment and also discourage antisocial behaviour.

The design concept is based on tiered seating and connecting each building block on both sides. The terrace, retaining wall and steps define different level of platforms, which act as various informal seating areas for outdoor learning and communication. Trees are planted along the circular form of surrounding corridors. Tree planting, lawn, natural garden and variety of surfacing make a natural and pleasant environment for students, teachers and school visitors.

Landscape Plan



Planting Strategy



Description

Intact native vegetation occurs across the western section of the study area, whilst the eastern portion is largely cleared, with scattered remnants. Biosis confirmed four plant community types (PCTs) in varying condition and extent within the study area, including:

PCT 1564 Blackbutt - Rough-barked Apple - Turpentine - ferny tall open forest of the Central Coast.

PCT 1599 Forest Red Gum grassy open forest on floodplains of the lower Hunter.
PCT 1619 Smooth-barked Apple - Red Bloodwood - Brown Stringybark - Hairpin Banksia healthy open forest of coastal lowlands.

PCT 1718 Swamp Mahogany - Flax leaved Paperbark swamp forest on coastal lowlands of the Central Coast.

The shrub and mid layer is mostly absent in the study area except in PCT 1718 and PCT 1619 communities and the northern portion of PCT 1598.

The subject site is dominated by a cover of exotic pasture, with native vegetation restricted to small remnant patches. Some areas of exotic vegetation (mostly Slash Pine) dominate areas in the south-east of the study area. Slash Pine is to be removed by Arborist's suggestion.

Removal of vegetation has documented in the Arboricultural Impact Assessment Report.



Red Gum grassy open forest

Canopy - Eucalyptus resinifera,

Shrub layer - Breynia oblongifolia

Groundcover - Imperata cylindrica. Rytidosperma oallidum, Rytidosperma setaceum Cynodon dactylon.



Swamp Mahogany - Flax leaved Paperbark swamp forest

Canopy - Eucalyptus robusta, Casuarina glauca, Melaleuca

Shrub layer - Acacia longifolia, Melaleuca linariifolia, Kennedia

Groundcover - Blechnum cartilagineum, Calochlaena dubia, Entolasia stricta, Juncus prismatocarpus, Persicaria



Blackbutt - Rough-barked Apple - Turpentine - ferny forest

Canopy - Eucalyptus pilularis, Angophora floribunda

Shrub layer - absent

Groundcover - Eragrostis brownii, mperata cylindrica, Cynodon



Smooth-barked Apple - Red Bloodwood - Brown Stringybark Hairpin Banksia forest

Canopy - Angophora costata,

Shrub layer - Acacia longifolia subsp. sophorae, Persoonia lanceolata

Groundcover - Common Couch Dianella caerulea, Echinopogon aespitosus, Gahnia clarkei, omandra longifolia, Pomax umbellata, Pteridium sculentum, Trachymene incisa.



Exotic Vegetation

Canopy - Pinus radiata

EXISTING VEGETATION MAP



Swamp Sclerophyll Forest

Hunter Lowland Redgum Forest PCT 1598 Forest Red Gum grassy open forest PCT 1718 Swamp Mahogany – Flax leaved Paperbark swamp forest

PCT 1564 Blackbutt - Roughbarked Apple - Turpentine ferny tall open forest PCT 1619 Smooth-barked Apple -Red Bloodwood - Brown Stringybark - Hairpin Banksia





Planting Palatte



Planting Schedule

TYPE	BOTANIC NAME	COMMON NAME	POT SIZE
Trees (Upper Bank)	Eucalyptus robusta	swamp mahogany	75.
	Melaleuca ericifolia	Swamp paperbark	75L
	Acacia longifolia	Golden Wattle	751.
	Angophora costata	Smooth Barked Apple	75L
Shrubs/Grasses (Upper Bank)	Callistemon cirtrinus	Crimson Bottlebrush	200mm
	Acacia myrtifolia	Myrtle Wattle	200mm
	Banksia spinulosa	Hairpin Banksia	200mm
	Carex inversa	Knob Sedge	50mm Tubestock
	Juncus usitatus	Common Rush	50mm Tubestock
	Schoenoplectus validus	River Club-rush	50mm Tubestock
	Baumea articulata	Jointed Rush	50mm Tubestock
Trees	Elaeocarpus reticulatus	Blueberry Ash	751.
	Waterhousea floribunda 'Green Avenue'	Weeping Lily Pilly	75L
	Magnolia grandiflora 'Exmouth'	Bull Bay Magnolia	75L
	Jacaranda mimosifolia	Jacaranda	125L
Shrubs/Ground covers/Grasses	Callistemon hybrids	Bottlebrush	200mm
	Syzygium 'Cascade'	Lilly Pilly	200mm
	Acacia myrtifolia	Myrtle Wattle	200mm
	Arthropodium cirratum	Mattapori Bay Lily	140mm
	Acacia cognata 'Lime light'	Dwarf Acacia	140mm
	Myoporum parvifolium	Creeping Boobialla	140mm
	Dianella caerulea	Flax Lily	50mm Tubestock
	Lomandra 'Tanika'	Mat Rush	50mm Tubestock
Grasses	Carex inversa	Knob Sedge	50mm Tubestock
	Juncus usitatus	Common Rush	50mm Tubestock
	Schoenoplectus validus	River Club-rush	50mm Tubestock
	Baumea articulata	Jointed Rush	50mm Tubostock

Native Evergreen Trees

















(Weeping Lily Pilly)

Exotic Deciduous Trees







Jacaranda mimosifolia (Jacaranda)



Bauhinia variegata (Orchid Tree)



Exotic Species

Magnolia grandiflora 'Little Gem' (Little Gem Magnolia)



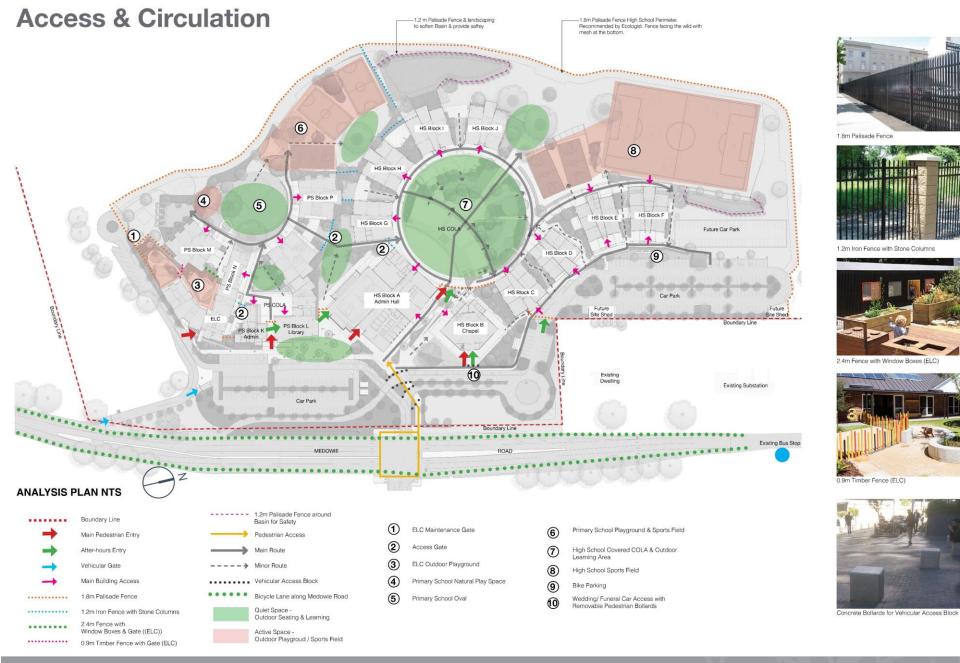
Pryus calleryana 'Chanticleer' (Flowering Ornamental Pear)



Lagerstroemia indica (Crepe Myrtle)

Planting Schedule

TYPE	BOTANIC NAME	COMMON NAME	POT SIZE
Trees	Ficus microcarpa var. hillii	Hill's Weeping Fig	125L
	Corymbia ficifolia	Red Flowering Gum	75L
	Cupaniopsis anacardioides	Tuckeroo	75L
	Hymenosporum flavum	Native Frangipani	75L
	Jacaranda mimosifolia	Jacaranda	125L
	Magnolia grandiflora 'Little Gern'	Little Gem Magnolia	76L
	Liquidambar styracifiua	Sweet gum	751.
	Westringia fruticosa	Coastal Rosemary	140mm
Shrubs/Ground covers			
	Hardenbergia violacea	Purple Coral Pea	200mm
	Gardenia jasminoides	Cape Jasmine	140mm
	Syzygium 'Cascade'	Lilly Pilly	140mm
	Pimelea linifolia	Slender Rice Flower	140mm
	Doodia aspera	Prickly Rasp Fern	140mm
	Agapanthus africanus	African Lily	140mm
0227			75L
Trees	Melaleuca quinquenervia	Flax Leaved Paperbark Brush Box	
	Lophostemon confertus		75L
	Tristaniopsis iaurina	Water Gum	75L
	Elaeocarpus reticulatus	Blueberry Ash	75L
	Cupaniopsis anacardioides	Tuckeroo	75L
	Pryus calleryana 'Chanticleer'	Flowering Ornamental Pear	75L
	Liquidambar styraciflua	Sweet gum	76L
hrubs/Ground overs	Westringia fruticosa	Coastal Rosemary	140mm
	Acmena smithii 'Allyn Magic'	Dwarf Lily Pily	140mm
	Myoporum parvifolium	Creeping Boobialla	140mm
	Doryanthes excelsa	Gymea Lily	140mm
	Hymenocallis littoralis	spider lily	140mm
	Agapanthus africanus	African Lily	140mm
rees	Ficus microcarpa var. hillii	Hill's Weeping Fig	125L
	Corymbia ficifolia	Red Flowering Gum	75I.
	Waterhousea floribunda 'Green Avenue'	Weeping Lily Pilly	75L
	Bauhinia variegata	Orchid Tree	75L
	Lagerstroemia indica	Crepe Myrtle	75L
Shrubs/Ground covers	Syzygium 'Cascade'	Lilly Pilly	200mm
	Trachelospermum jasminoides	Star Jasmine	140mm
	Pirnelea ferruginea	Rice Flower Snowball	140mm
	Xerochrysum bracteatum	Golden Everlasting Daisy	140mm
	Arthropodium cirratum	Mattapori Bay Lily	140mm
Meadow	Pna 'Kingsdale'		50mm Tubestock
and the same of th	Imperata cylindrica	Bladey Grass	50mm Tubestock
		Bladey Grass	
	Poa 'Eskdale'		50mm Tubestock
	Ficinea nodosa	Knobby Club Rush	50mm Tubestock
	Pennisetum 'Cream Lea'		50mm Tubestock
	Danthonia species	Wallaby Grasses	50mm Tubestock
	Verbena bonariensis	Tall verbena	50mm Tubestock
	Miscanthus oligostachyus 'Eileen Quinn'	Miscanthus 'Eileen Quinn'.	50mm Tubestock
rees	Cupaniopsis anacardioides	Tuckeroo	76L
	Bauhinia variegata	Orchid Tree	45L
	Citrus reticulata	Mandarin Orange	45L
ow shrubs/	Gardenia jasminoides	Cape Jasmine	140mm
Ground covers	Pittosporum 'Miss Muffet'	Dwarf Pittosporum	140mm
	Hardenbergia violacea	Purple Coral Pea	140mm
	Westringia fruticosa	Coastal Rosemary	140mm
	Phormium tenax 'Jester'	Jester Flax	140mm
	Dianella caerulea	Flax Lily	50mm lubestock
	Dietes grandiflora	Fairy Iris	50mm Tubestock
	Pennisetum 'Nafray'	Nafrav	50mm Tubestock
Trees	Cupaniopsis anacardioides	Tuckeroo	75I
		Bottlebrush	75L
	Callistemon hybridus		
	Plumeria alba	Frangipani	75L
	Magnolia grandiflora 'Little Gern'	Little Gem Magnolia	75L
	Pryus calleryana 'Chanticleer'	Flowering Ornamental Pear	751.
Shrubs/Ground covers/Grasses	Syzygium 'Cascade'	Lilly Pilly	200mm
	Hymenosporum flavum 'Gold Nugget'	Native Frangipani	200mm
	Callistemon cirtrinus	Crimson Bottlebrush	200mm
	Agapanthus africanus	African Lily	140mm
	Lomandra 'Tanika'	Mat Rush	140mm
	Myoporum parvifolium	Creeping Boobialla	140mm
	Dianella caerulea	Flax Lily	50mm Tubestock



Way-finding and Entry Signage



Materials and Finishes

Description

Pavement

The materials and finishes of the landscape intend to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.



Asphalt



Concrete Oxide - Two tones to break up scale of pavement



Stablised Gravel Path



Outdoor Decking



Concrete Decking



Permeable Paving



Fine Grain Paving Detail



Rubber Softfall



Linear Pavement Markers in Pavement



Linear Pavement Markers in Concrete



Crazy Stone Paving



Timber Stepping Logs

Outdoor Furniture



Raised Garden Bed with Seating



Planter with back seating



Concrete Table Setting



Timber Seating



Concrete Edging and Seating

Detail Plan 1 - Primary School



- Timber Balance with Steppping Logs
- Existing Tree with Playful Seating





Planting along the edge of lawn



Outdoor Playground



Detail Plan 3 - Chapel & Carpark Access

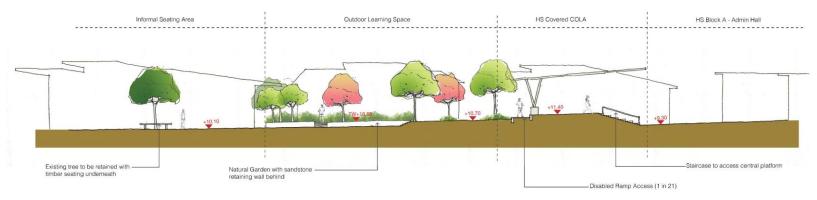


Detail Plan 4 - Early Learning Centre

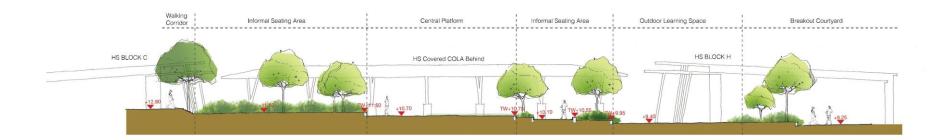


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Landscape Sections



Section AA - High School COLA



Section BB - High School COLA