





PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL



28 August 2023

Queensland Government





67-69 Shore Street East Cleveland QLD 4163

MULTI UNIT DWELLING DEVELOPMENT

CONTENT

DESCRIPTION	DRAWING	ISSUE	DATE	STATUS
specifications planting palette concept plan concept plan landscape planting	221204 02 221204 03 221204 04 221204 05 221204 06	a a b b a	28/02/23 28/02/23 10/05/23 10/05/23 28/02/23	preliminary issue preliminary issue preliminary issue preliminary issue preliminary issue



GENERAL

All works to be performed by a licensed Contractor familiar with landscape construction of this nature. The Contractor shall verify the location of utilities on site prior to the ensure that they will not have an effect on the works. The Landscape Contractor is advised to visit the site to satisfy themselves as to local conditions, accessibility, storage space, the full extent and character of the works and the site, the nature of the ground, the supply of materials and water and the execution of the contract generally. No claim will be allowed for any alleged inadequacy of the description herein. Should there be any conflict, the Contractor shall notify the Landscape Architect

Establish exact locations of services, drains, sewers and water supply lines and points prior to commencing works and ensure their protection during the

Figured dimensions shall take precedence over scale measurements and large scale drawings over small scale. Unless otherwise specified the Drawings and Specification shall include everything reasonable for the proper and entire completion of the

Verify discrepancies between Specification and Drawings with the Landscape Architect before proceeding with the particular work Failure to do so will not be taken as a reason to claim for extra work.

and the like to or from the site in a manner that will prevent dropping of materials on streets, public and private areas. Ensure that the wheels. and plant leaving the site are free of mud and that mud is not carried onto adjacent paved streets or other areas. Restrict dust caused by the Works to a and surplus building materials from minimum. Take all practicable steps to minimise noise resulting from the Works.

Check all delivery tickets. labels. identification marks and, the goods themselves to ensure that all products comply with the project documents. Where different types of any product are specified, check to ensure that the correct type is being used in each location. In particular, check that:

All stock has been adequately protected for loading and in transit. The sources, types, qualities, finishes and colours are correct, and match any approved samples The correct species, cultivars, pot sizes, plant height, girth or spread have been supplied for each consignment from the supplier All materials should be clean. undamaged and otherwise in good

Ensure adequate provision is made for the protection and storage of deliveries. In particular ensure that: Materials which may deteriorate with storage must not be stockpiled on site. Adequate and appropriate provision is made for storage prior to deliveries arriving on site. ALL materials in storage are to be suitably protected from physical damage and extremes

of weather. Keep storage areas neat

and tidy.

all existing surfaces, items, structures and anything disturbed or damaged by the performance of the works, to its condition at the commencement of tracks and body surfaces of all vehicles the Contract, other than that forming part of or directly modified by the nev work.

> Remove and cart away debris, spoil the site and buildings, with the exception of those works associated with others prior to practical completion

Fire Ant Contro

The Landscape Subcontractor is to allow to carry out all necessary measures, inspections and safeguards to ensure Fire Ants do not enter the site via equipment, machinery. materials and plant stock.



EXCAVATION AND EARTHWORKS

Inspect the site and ascertain the nature of excavation required and the working conditions that will be encountered prior to the commencement of work. The location of topsoil stockpiles, roadway and cut embankmen profiles and water connection points must be taken into account.

Surface drainage shall be diverted clear of excavations and covers shall be provided where necessary for safety. Ensure that run-off is not concentrated onto adjoining properties and does not cause a nuisance thereto. Finished surfaces shall be graded in accordance with Construction Plans.

Erect barriers as required to prevent excavated material and rocks from intruding onto adjoining



CULTIVATION & SUBSURFACE

DRAINAGE

The Landscape Subcontractor is to provide for sufficient surface and sub-surface drainage to garden and grass areas to ensure adequately drained soft landscaped areas free from surface ponding water and heavy/ waterlogged soils. Surface and sub-surface drainage is to aid in the healthy growth and continued thriving of all plant stock and grass

Comply with the relevant Australian Standards to the extent that they are relevant and not over-ridden by the

Cultivate sub-grade to a minimum depth of 150mm prior to placing topsoil to all planting and turf areas on ground.

Minimum cross falls of 1:50 on planting and pathways to drainage collection points and overflow points. Planting areas should not exceed 1:3.



FILL & TOPSOIL

Fill and subsoil material used to make up levels shall be re-used from previous earthworks operations on site where possible which is composed of natural site subsoils but free from stones, sticks, roots. rubbish and material toxic to plant

Supply and install imported topsoil where necessary that complies with Australian Standards to all turf (100mm) and garden (300mm) areas as shown on drawings unless otherwise specified. Ensure modified site soil is free from stones, sticks, roots, rubbish and material toxic to plant growth. Modified topsoil shall have a friable structure with good drainage and high organic content.



EROSION AND SEDIMENT CONTROL

The Landscape Contractor shall ensure measures to minimise erosion and situation. Take all precautions necessary to prevent erosion, contamination and sedimentation of the site, surrounding areas, water and drainage systems, in accordance with the Environmental Protection (Water) Policy 1997.

Methods of protection shall include but not be limited to the following:

- Construction of temporary surface
- Diversion and dispersal of concentrated flows to point where the water can pass through the site without damage;
- · Construction and maintenance of silt traps (eg hay bales) to prevent the discharge of scoured materials to downstream areas;
- Progressive restoration of disturbed areas;
- Construction of temporary siltation

Any erosion damage reinstatement or cleanup as a result of the contractor not adequately protecting the site, materials or the works shall be the responsibility of the landscape contractor.

Remove temporary erosion control measures when they are no longer



PLANT SUPPLY

The Landscape Contractor shall supply plants as specified in the planting schedule. Plants shall be delivered on site true to pot size, species and type, and free of weeds disease and fungal infection. Substitutes will not be made without prior consent of the Landscape

Ensure that trunks and branches are free of dieback, cavities, sunburn and secretions. Trunk and branches are to be evenly tapered and textured typical of the specie. Plant material is to be matured enough to support themselves without staking.



EXISTING TREES

Protect all existing vegetation unless otherwise specified. All vegetation and weed removal is to be carried out using industry standard accepted safety procedures and equipment to ensure personal and environmental protection. Avoid damage to nearby trees and surroundings

Grub out stumps and roots over 75mm diameter to a minimum depth of 500mm below sub-grade. Stumps less than 75mm diameter shall be cut off at ground level and treated to

Completely remove woody weeds within the extent of works



ENVIRONMENTAL PROTECTION

The Landscape Contractor should consider in every instance whether the use of chemicals is strictly necessary before application, and assess the product, site conditions and species to ensure minimum risk to his employees, other users of the site and the environment, and take appropriate safety precautions in accordance with all current statutory regulations



TURFING

Supply and install A-grade turf (variety specified on drawings) to areas shown on drawings. Finishing levels should be flush with adjacent surfaces unless otherwise detailed Spread topsoil and grade surface to ensure a level finished surface which drains to nominated field

Turf to be free from nutgrass or other noxious weeds or any other material deleterious to plant growth

Deliver the turf within 24 hours of cutting, and lay it within 36 hours of cutting. Prevent it from drying out between cutting and laying.



MULCH

Supply and install organic mulch to a minimum of 100mm and gravel mulch to a minimum of 50mm Ensure mulch meets Australian Standards and is free from deleterious matter, fungi and disease. Mulch shall finish 25mm below adjacent surfaces.



FERTILISER

Provide proprietary fertilisers, delivered to the site in sealed bags marked to show manufacturer or vendor, weight, fertiliser type, N:P:K ratio, recommended uses and application rates. Store in a dry secure environment. Apply according to manufacturer's recommendations (rate/reapplication/watering).



MAINTENANCE/ESTABLISHMENT PERIOD

Maintenance of all landscape works is to be carried out by the Contractor until completion of the landscape works.

Maintenance includes replacement of dead and/or diseased plant stock, removal of weeds and rubbish, weed spraying and mowing.

PROJECT

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DRAWING

specifications

221204 02

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LOPHOSTEMON confertus Brush Box Size: 100Lt (H1800mm W1200mm)



CUPANIOPSIS anacardioides Tuckeroo Size: 100Lt (H1800mm W1200mm)



ELAEOCARPUS eumundi

Eumundi Quandong

STRELITZIA nicolii Giant Bird of Paradise Size: 45Lt (H1500mm W1000mm) Size: 45Lt (H1500mm W1000mm)



HIBISCUS 'Rubra' Bronze Cottonwood Size: 100Lt (H1800mm W1200mm)



WATERHOUSEA floribunda Weeping Lilly Pilly Size: 100Lt (H1800mm W1200mm)



HELICONIA kawauchi Size: 300mm (H1000mm W500mm)



HELICONIA andromeda Size: 200mm (H700mm W400mm)



ALOCASIA brisbanensis Cunjevoi Size: 200mm (H700mm W400mm)



SYZYGUIM cascade Weeping Lily Pilly Size: 140mm (H300mm W150mm)



FICUS mircocarpa Green Island Size: 140mm (H300mm W150mm)



CALATHEA lutes 'Havana Cigar' Size: 300mm (H1000mm W500mm)



LOMANDRA confertifolia Dwarf Matrush Size: 140mm (H300mm W100mm)



LIRIOPE 'Evergreen Giant' Giant Mondo Size: 140mm (H300mm W100mm)



LOMANDRA longifolia Mat Rush Size: 140mm (H300mm W100mm)



ZOYSIA tenuifolia Velvet Grass Size: 140mm (H50mm W100mm)



Size: 140mm (H300mm W150mm)



ALPINIA zerumbet Variegata Shell Ginger Size: 140mm (H300mm W150mm)



CISSUS antartica Kangaroo Vine Size: 140mm (H100mm W250mm)



MYOPORUM ellipticum Creeping Boobialla Size: 140mm (H100mm W250mm)



ZAMIA furfuracea Cardboard Palm Size: 300mm (H500mm W400mm)



PHILODENDRON 'Hope' Tree Philo Size: 300mm (H500mm W400mm)



MONSTERA deliciosa Fruit Salad Plant Size: 300mm (H500mm W400mm)



DICHONDRA 'Silver Falls' Silver Falls Size: 140mm (H300mm W150mm)



CARPOBROTUS glaucescens Pigface Size: 140mm (H300mm W150mm)



FICUS pumila Climbing Fig Size: 300mm (H500mm W400mm)

PROJECT

221204 67-69 shore street east, cleveland qld 4163 DRAWING

planting palette 221204 03

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STREET FRONTAGE PLANTING Canopy tree species to promote local identity of street and complement scale and height of the building form



TREE PLANTING Shade trees with non-invasive root systems to maintain privacy and aid in sustainable building practices



NARROW PLANTING Shrubs and columnar trees to screen fence and provide privacy from neighbours; tall narrow trees with potential height greater than 5m to appropriately



GARDEN PLANTING Subtropical trees and groundcovers to positively contribute to streetscape around property boundary and maintain CPTED

beds and soil media is ameliorated to increase its water holding 75mm deep organic Tea tree mulch

cultivated/scarified garden soil to all

GARDEN BED

Minimum 300mm

FEATURE VEGETATION Prominent planting to planters to compliment built form and aid to bring bulk to scale in the landscape



CLIMBING PLANTING Climbing vine species (climbing ficus) to grow on boundary wall where ntenance is difficult



IRRIGATION Drip line irrigation system to be fully automated to cover all planter garden areas, with environmentally reactive controller (HYDRAWISE pro-HC controller or like product) to maintain plant health in extreme conditions



PRIVATE OPEN SPACE Private Open Space to unit courtyards include pool zone for passive recreation, and gardens for vegetative screening and shade tree planting



RFTAINING



WATER CONSERVATION Stormwater harvesting within landscape Deliniated or separated pedestrian design optimized, to reduce strain on stormwater system whilst ensuring overland flow paths are unimpeded

Water tanks to harvest and store rainwater for irrigation system use in gardens. Water tank selection as per architectural specifications; 1500L



TIMBER FENCE 1800mm timber paling fence to rear and side boundaries (100mm gap at base to allow free



movement of overland flow)



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concept plan - ground floor





Retaining walls are to be utilised throughout the site to level sloped topography on site, as per civil design (bulk earthworks layout plan)



PEDESTRIAN/VEHICLE ACCESS footpath to access all buildings from

Standard entry driveway, Standard Council crossover; all necessary council approvals to be in place prior to constructing driveway or



VERGE TREATMENT Protect and repair existing verge as per council guidelines on completion of landscape works

Install A-Grade Green Couch Turf over council verge



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seed





FEATURE VEGETATION Prominent planting to planters to compliment built form and aid to bring bulk to scale in the landscape



CASCADING PLANTING Planti species to cascade over planter box egde to soften view of



SMALL PLANTER BOX Minimum 400mm depth with drainage to all planter box gardens to maximise small to medium plant growth; refer to architectural



PRIVATE OPEN SPACE Private Open Space to unit courtyards include tiled patio for passive recreation, and planters for vegetative screening



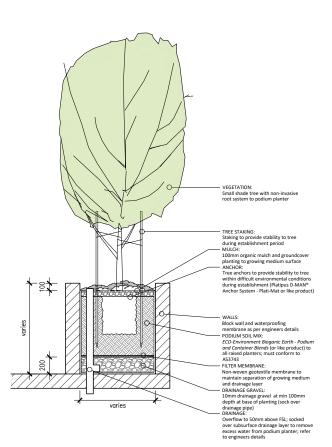
MAINTENANCE SAFETY Balcony planter and roof top planter maintenance must utilise 'anchor and harness' style fall protection systems (XSPlatforms 'LinkdPro' or



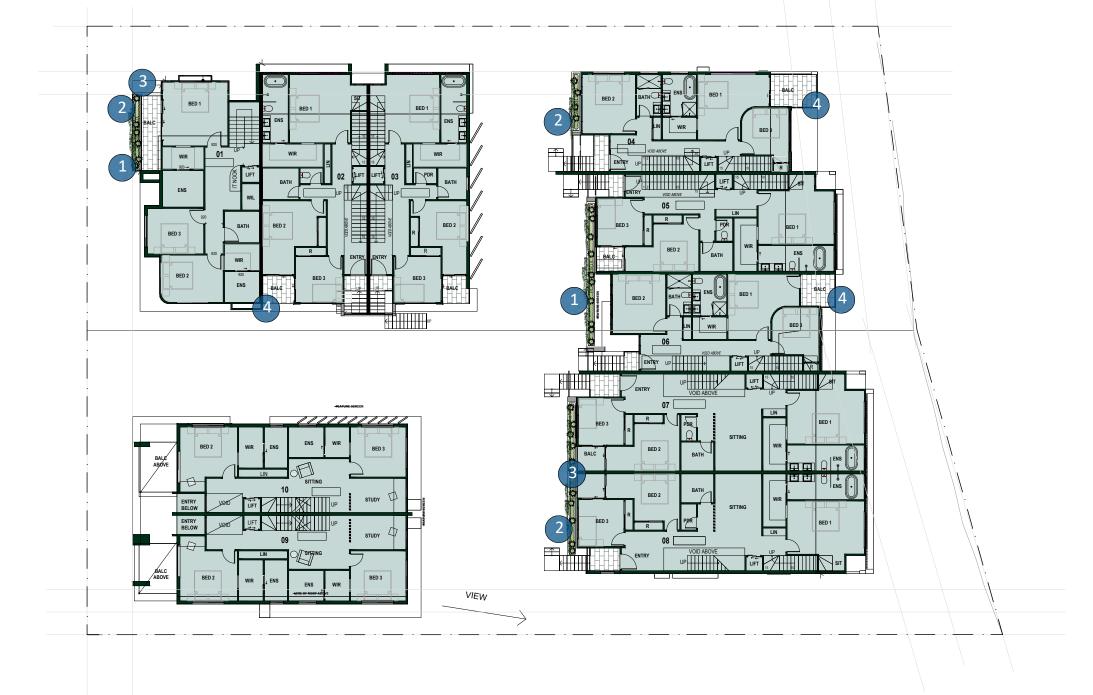
PLANTER MEDIUM High quality container growing medium to promote maximum plant health to all planters: ECO-Environment Bioganic Earth -Podium and Container Blends (or like product); must conform to AS3743



IRRIGATION Drip line irrigation system to be fully automated to cover *all* planter garden areas, with environmentally reactive controller (HYDRAWISE pro-HC controller or like product) to maintain plant health in extreme



SHORE STREET EAST



GENERIC PLANTER DETAIL

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DRAWING

concept plan - first floor

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turfed areas









Total Site Area: 2226m² **Vegetated Landscaping:** 295.03m²

Deep Planting: 296.24m² Total: 591.27m²

Required Percentage of Site: 30% Percentage of Site: 26.56%

DEEP PLANTING

All deep-planting zones to accommodate large subtropical tree species in 5m dimension (or greater) planting beds, to promote canopy and height growth of 5m (or greater) within 5 years from completion of works. Of the total site area for Medium rise (3-6 storeys) residential developments; 30% of the site area must be vegetated landscape and recreation space including 5% of site area to be deep planting at 5m minimum dimension, landscape and creation areas can be provided in a varieity of locations including rooftops, podium planters or at ground level; and at a minimum include facilities such as seating shade and wind protection and flexible spaces suitable for recreational activities.

Green roofs, green walls or community gardens that contribute to the attractuveness of there spaces are also highly encouraged

Large local tree species shall be selected from the RCC A-Z Council Tree Species - Planting species planning scheme policy, to compl



PLANTERS

While deep planting in natural soil for this development is slightly under the required 10%, the extensive planter gardens throughout the building levels add to the overall intent.

The screening and cascading vegetation on every level overlooking the street frontage achieves a green softening of the building structure in the same way a large canopy tree within deep planting would expect.

Buildings that feature greenery and natural light do more than just look good. The green spaces prove beneficial to building occupants and even the building itself stands to benefit.

The research on how indoor greenery impacts employee health and productivity can't be refuted, and its positive effect continues to be seen. When plants are used on the walls and roofs of buildings, the results are positive too

Plants reduce energy usage. Plants extend roof lives. Plants moderate temperatures in hot spots.

Probably one of the most impressive and important benefits of rooftop gardens is how they positively affect the Urban Heat Island

The UHI concept is based on the increased temperature levels found in pretty much all urban areas. Because the sun warms up concrete faster than it does plants and trees and because concrete is more abundant in urban areas, the city becomes a big hot-aired area (heat island) all year round. This makes cities extremely hot in summer, leading to an increased use of air conditioners and othe

These trees shall be in keeping with the existing local character of the area and planted in deep-planting beds which are accessible for maintenance and positioned for the comfort deep-planting shall be located to promote passive cooling of the built form and shade pedestrian paths throughout the development

Along the street frontage 50% (or greater) of the streetscape must be shaded within 5 years and so planting beds of minimum 2m width

50% (or greater) of the frontage length. To achieve 50% (or greater) shading of the verge within 5 years, a minimum of one deep-planting area shall be provided. Where deep-planting is deemed to be insufficient to achieve 50% shading with individual trees along the street frontage.

Seed Landscape Design shall select subtropical rainforest species planted in clusters to ensure the RCC requirement of 50% (or greater)

trees within the site is a priority; and where possible deep-planting zones shall be located surrounding retained trees to protect and maximise future growth. Where neighbouring properties house large trees along the shared boundary, deep-planting zones shall be located approximate to those existing trees and all protections as per RCC Guidelines and AS4970-2009 provided to those retained neighbouring trees.

All hardscape spaces to fall towards garden beds to collect runoff in keeping with WSUD practice, so to reduce the impact of the new development on the stormwater system.



This effect decreases with the more green spaces we incorporate in a city. Through the daily evaporation cycle, plants are able to cool down entire cities, reducing the UHI effect. Moreover, the plants themselves will be covering what would have otherwise been a

concrete rooftop, one of the main causes of

The insulation provided by rooftop gardens not only can be applied to temperatures but also to noise. The combination of soil and plants can help to absorb, reflect, or deflect sound waves, providing the building with excellent noise reduction, particularly for low-frequency

This could be greatly beneficial in decreasing noise pollution in busy cities or areas that are located near airports or underneath flight

Rooftop gardens contribute to the reduction and filtering of polluted air particles and gases, not only through the plants and the photosynthesis process but also by deposition

distribution of dust in the air and the production of smog, which leads to decreasing greenhouse emissions in urban areas



LANDSCAPE DESIGN

221204

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landscape planting

may 2023 b

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