

DISCOVERY POINT - WOLLI CREEK

Landscape Design Guidelines / Public Domain Plan

December 2010



Introduction

The following report has been developed to ensure a consistent, functional and aesthetic landscape design approach for Discovery Point in accordance with the concept plan and existing site character.

The following documents and reports have been referenced throughout this report;

Draft Rockdale Development Control Plan (October 2010)

Draft Wolli Creek and Bonar Street Precinct - Public Domain Plan + Public Domain Technical Manual (August 2010)

Draft Rockdale Technical Specification Landscape (July 2010)

Bates Smart - Discovery Point, Wolli Creek - Concept Plan Design Report (August 2010)

Street Hierarchy and Tree Planting Strategy

Street Hierarchy Plan

Street Tree Planting Strategy Plan

Mixed Use Street - Brodie Spark Drive

Retail Street - Magdalene Terrace / Discovery Point

Residential Street - Chisholm Street

Lane - Spark Lane

Street Hierarchy Plan

The following street hierarchy has been developed in accordance with the Concept plan.

Brodie Spark Drive and Discovery Point Place are recognised as mixed use streets, Magdalene Terrace as a retail street, Chisholm Street as residential and Spark Lane as a laneway along the railway line.

LEGEND

- Regional Road
- District Link
- Retail Street Frontage
- Mixed Use Street
- Residential Street
- Laneway
- Bonnie Doon Channel



Fig 1.0 Street Hierarchy Plan
Source: Rockdale City Council, edited by Discovery Point pty ltd

Street Tree Planting Strategy Plan

The Street Tree Planting Strategy reflects the Streetscape Hierarchy as identified in Fig 1.0.

As the main entry street, Brodie Spark Drive is nominated as a Feature Avenue. The central public domain (Magdalene Terrace and Discovery Point Place) consisting of retail and mixed use streets are characterised by deciduous avenue planting.

Lower use streets such as Chisholm Street and Spark Lane are characterised by evergreen planting with an emphasis of screen planting along the railway corridor.

LEGEND

- Deciduous Avenue
- Feature Avenue
- Waterway Reference
- Evergreen Tall
- Residential Small
- Railway Corridor Screening
- Rail Infrastructure Corridor



Fig 2.0 Street Tree Planting Strategy Plan
Source: Rockdale City Council, edited by Discovery Point pty ltd



Design Intent

Feature avenue planting combining accent palms for height and structure with canopy trees for colour and shading. Large specimen trees (located at public domain interfaces) to provide background planting and additional canopy to the streetscape. Where possible street verges and tree pits are to be planted with undergrowth to soften the urban environment.

Recommended Street Tree Planting List

Botanical Name	Common Name	Mature height x spread	Features	Native
Washingtonia robusta	Cotton Palm	25-30m HT	-	-
Livistonia australis	Cabbage Tree Palm	25m Ht	-	x
Platanus acerifolia	Plane Tree	15m Ht	Deciduous	-
Platanus orientalis digitata	Plane Tree	15m Ht	Deciduous	-
Magnolia grandiflora	Magnolia	10m Ht x 6m	Evergreen / flowering	-



Washingtonia robusta



Livistonia australis



Magnolia grandiflora



Platanus acerifolia



Platanus orientalis

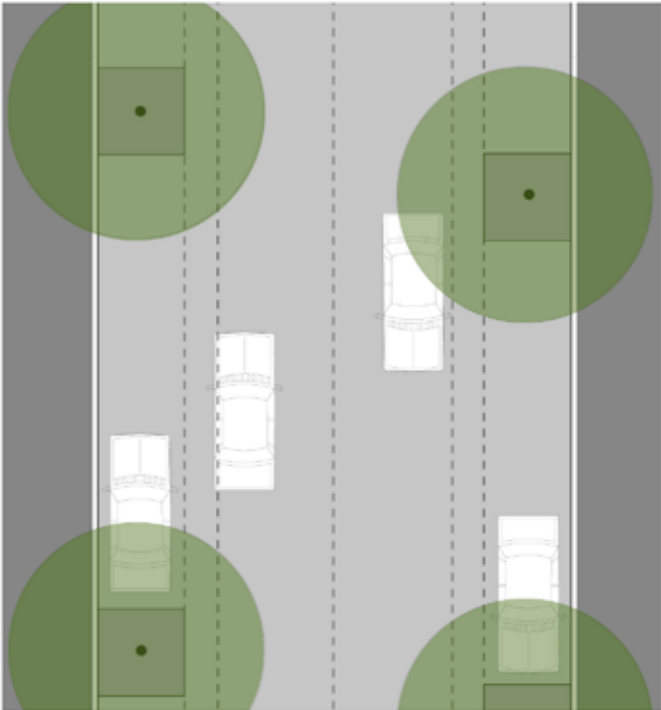
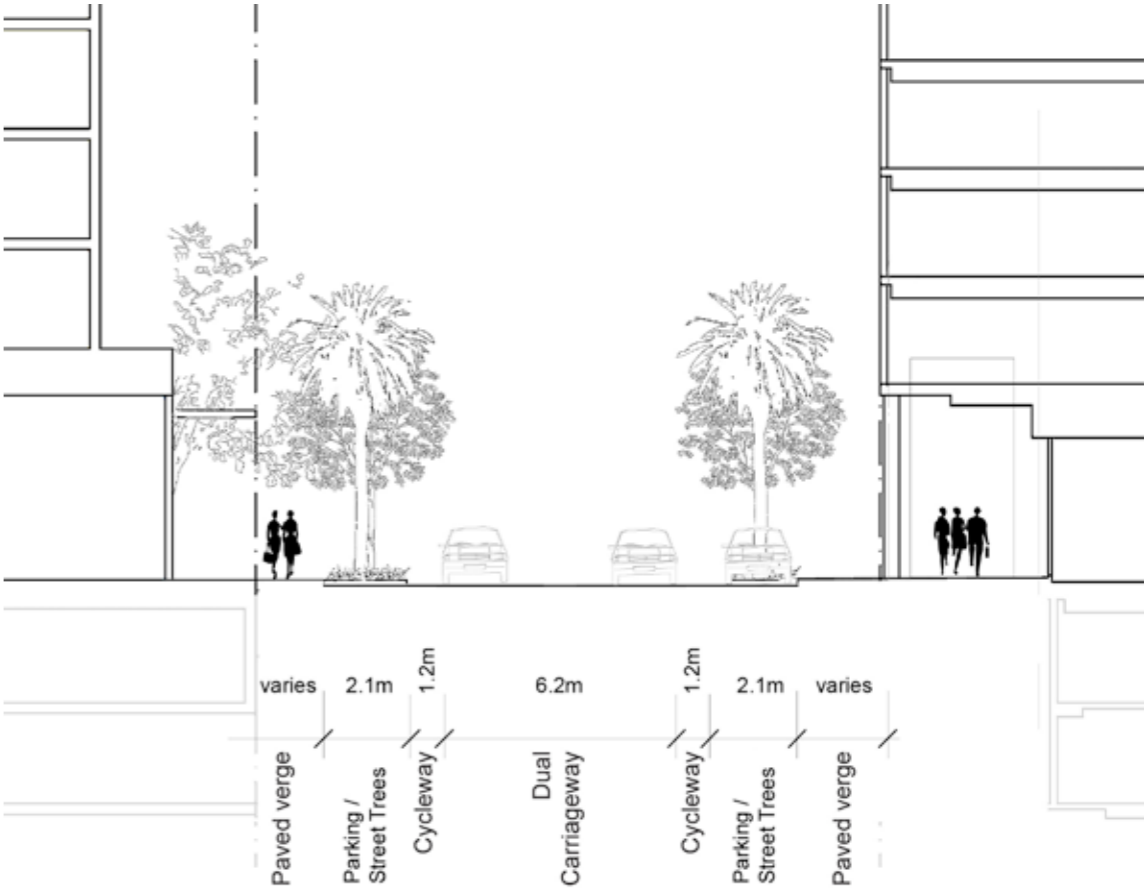


Fig 3.1 Brodie Spark Drive - typical street section
Fig 3.2 Brodie Spark Drive - typical Street alignment
Source: Rockdale City Council, edited by Discovery Point pty ltd

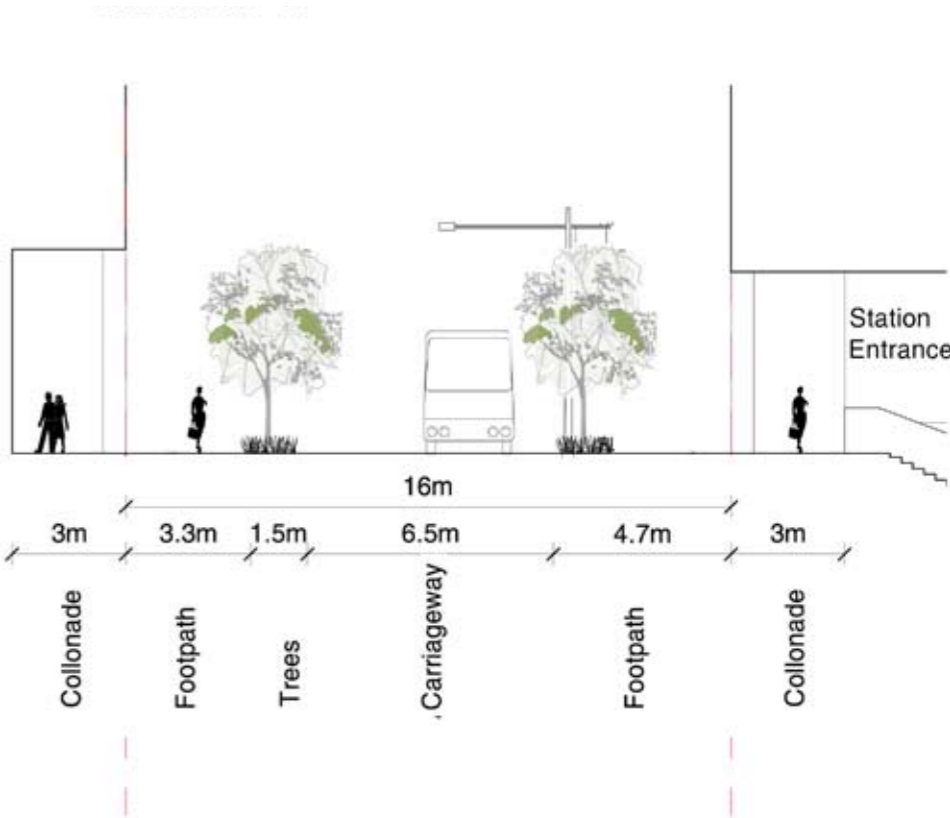


Design Intent

Deciduous Avenues are proposed along Magdalene Terrace (retail street) and Discovery Point Place (mixed use street) to characterise the central public domain. Where possible trees are to be planted closely together to create a more intimate streetscape scale.

Recommended Street Trees Planting List

Botanical Name	Common Name	Mature height x spread	Features	Native
Pyrus Ussuriensis	Manchurian Pear	9m x 7m	Deciduous / flowering	-
Liriodendron tulipifera	Tulip Tree	13m x 5m	Deciduous / flowering	-
Jacaranda mimosifolia	Jacaranda	10-15m height	Deciduous / flowering	-
Ulmus parvifolia	Chinese Elm	10m x 11m	Deciduous	-
Malus floribunda	Crab apple	6m -8m height	Deciduous / flowering	-



Pyrus ussuriensis



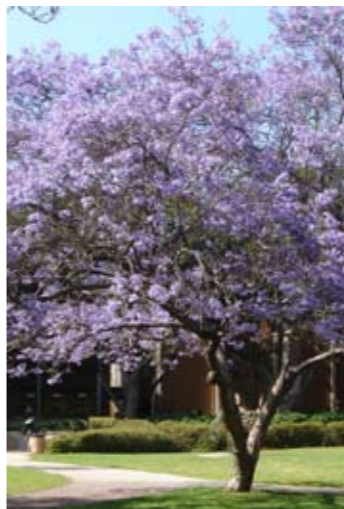
Pyrus ussuriensis - in flower



Ulmus parvifolia



Liriodendron tulipifera



Jacaranda mimosifolia

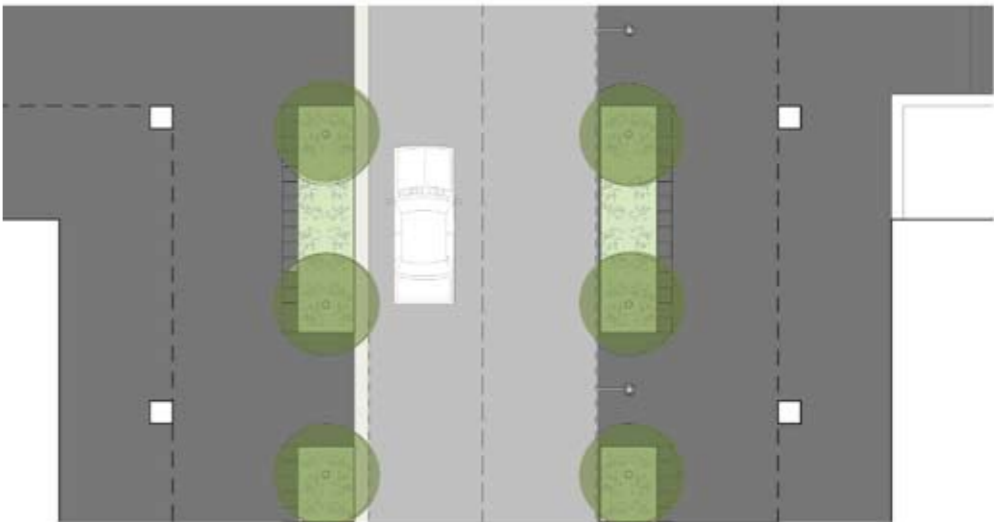


Fig 4.1 Discovery Point Place - typical street section
Fig 4.2 Discovery Point Place - typical street alignment
Source: Rockdale City Council, edited by Discovery Point pty ltd



Design Intent

Low use residential street with small to medium sized evergreen trees aligned to the south side of the street.

Evergreen trees are recommended to provide year round canopy and to reflect the adjacent foreshore park planting. Combination of shrub / groundcovers to street verges.

Recommended Street Tree Planting List

Botanical Name	Common Name	Mature height x spread	Features	Native
Tristaniopsis laurina	Water Gum	5-15m height	Evergreen	x
Elaeocarpus reticulatus	Blueberry ash	10m Ht	Evergreen / flowering	x
Cupaniopsis anarcardioides	Tuckeroo	8m Ht	Evergreen	x
Lophostemon confertus	Brush box	10m - 15m Ht	Evergreen	x



Tristaniopsis laurina



Cupaniopsis anarcardioides



Elaeocarpus reticulatus



Lophostemon confertus

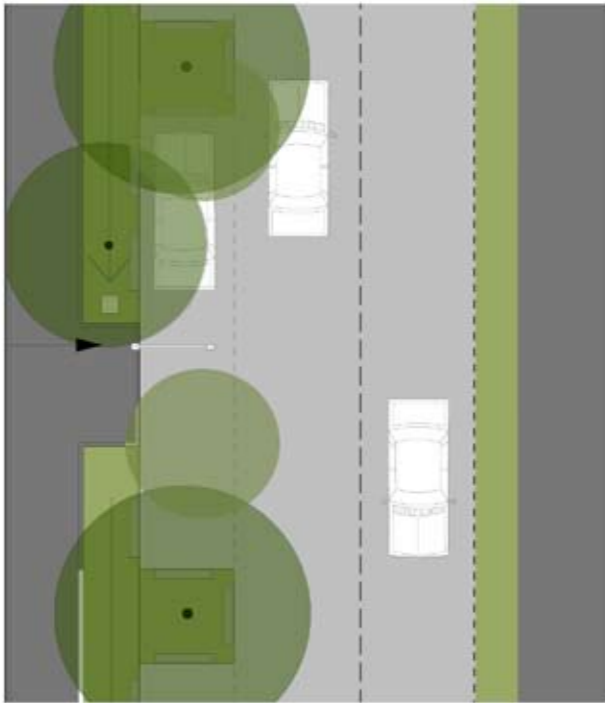
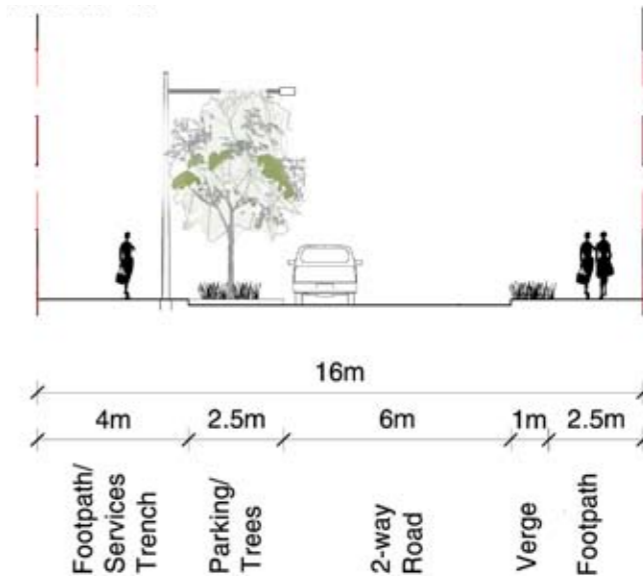


Fig 5.1 Chisholm Street - typical street section
Fig 5.2 Chisholm Street - typical Street alignment
Source: Rockdale City Council, edited by Discovery Point pty ltd



Design Intent

Restricted tree planting opportunity due to rail corridor offset (6m from railway). Screen planting (shrubs / groundcovers) proposed to railway interface. Where possible evergreen plants are to be used within the development side of the street to soften the built facade.

Large canopy trees to be incorporated at key positions (public domain interfaces) to provide additional background planting.

Recommended Rail Corridor Screening Planting List (within 6m offset zone)

Botanical Name	Common Name	Mature height x spread	Features	Native
Syzygium luehmannii	Lilly Pilly	5m Ht x 2.5m	Evergreen	x
Ceratopetalum gummiferum	NSW Christmas bush	7m Ht x 3m	Evergreen / Flowering	x
Callistemon Species	Bottle Brush	3-5m Ht	Evergreen / Flowering	x
Waterhousia floribunda ‘sweeper’	Weeping lilly Pilly	10m Ht x 6m	Evergreen	x
Lomandra longifolia	Mat Rush	1m Ht	Evergreen / strappy plant	x



Syzygium luehmannii



Ceratopetalum gummiferum



Lomandra longifolia



Callistemon



Waterhousia 'sweeper' screening hedge

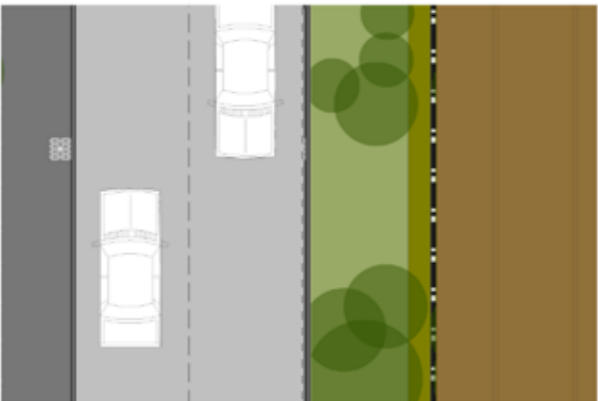
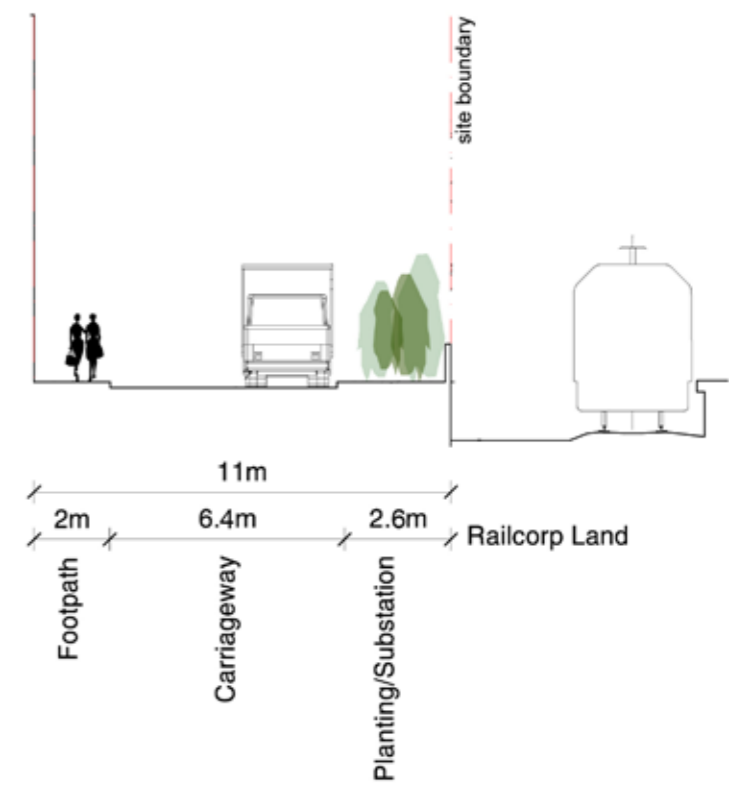
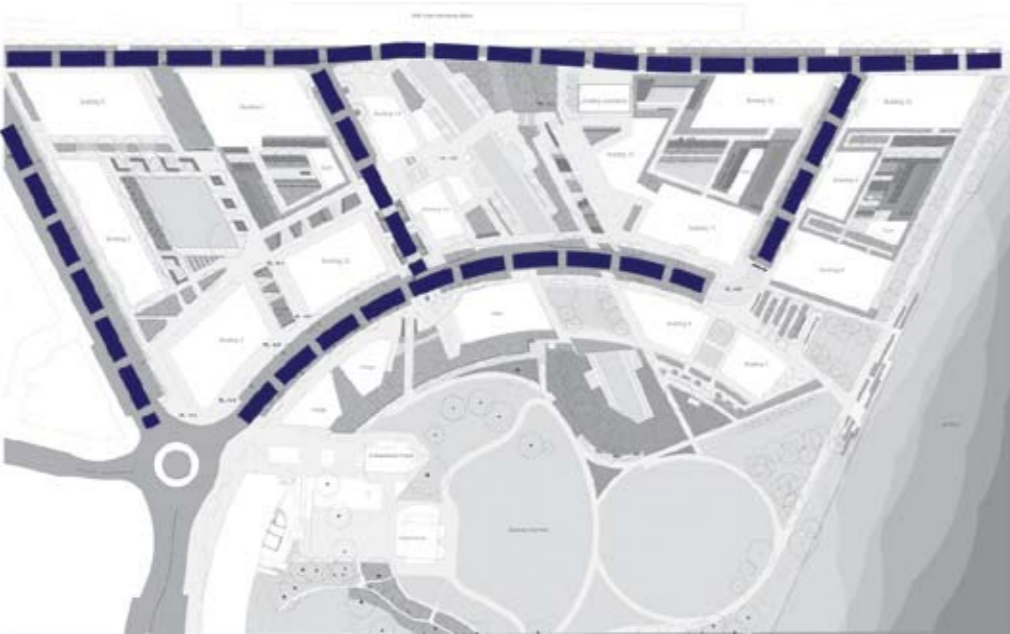


Fig 6.1 Spark Lane - typical street section
Fig 6.2 Spark Lane - typical Street alignment
Source: Rockdale City Council, edited by Discovery Point pty ltd



Design Intent

Mixed Use Street

The Main street pavement is proposed as a combination of insitu concrete / asphalt and concrete unit pavers. The majority of the pavement field is to be uniform and consistent with key areas highlighted with additional detail. New pavements are to complement and enhance the existing pavements on Brodie Spark Drive.

Retail Street

Combination of insitu and concrete unit pavers. Majority of pavement field is to be uniform and consistent. New pavements are to complement and enhance existing pavement on Magdalene Terrace.

Residential Street

Reduced pedestrian use, typically residents only. Pavement is to be reduced in width and uniform with minimal pavement detail.

Laneway

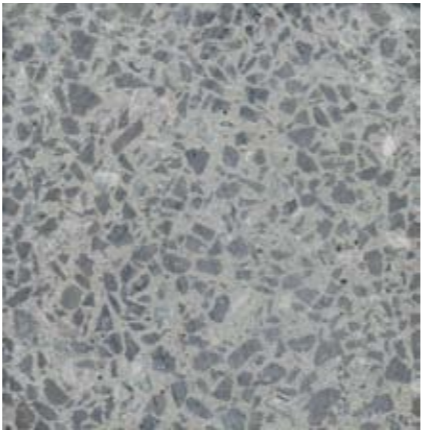
Minimum width footpath for reduced pedestrian access. Uniform pavement with minimal pavement detail.

Recommended Paving

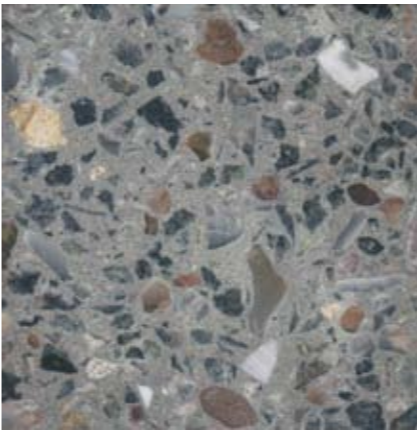
- Unit Paver: concrete (to match existing or similar) / stone
- Sets granite (or similar)
- Insitu Concrete: broom finish or similar
- Insitu Concrete: Exposed Aggregate
- Asphaltic Concrete Paving (to match existing)



Concrete Unit Pavers / Asphaltic Paving (as existing on site)



Concrete Unit Pavers - Recommended colour range



Asphaltic footpath pavement



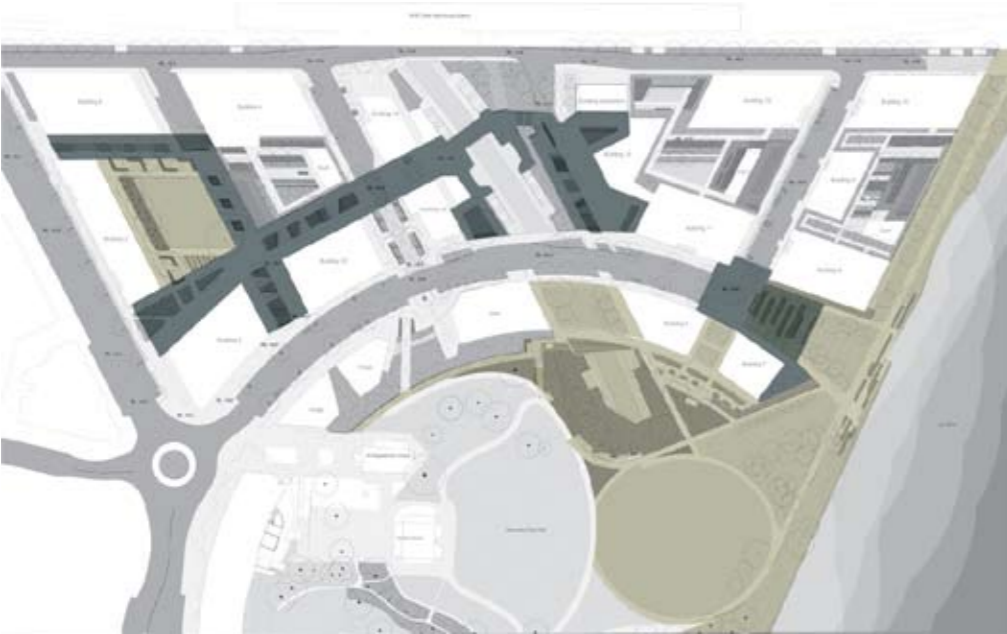
Granite Sets (as existing on site)



Insitu Concrete - Broom Finish



Insitu Concrete - Exposed Aggregate



Design Intent

Key Links and Thresholds

Combination insitu and unit pavers; include finer detail and texture in the pavement field to identify the area as primarily a pedestrian zone. Contrasting tones, textures and patterns are to be used to identify the area as different from the general streetscape finishes.

Recommended Paving Types

- Unit Paver concrete (to match existing or similar) / stone
- Brick Paving: to reflect local site history
- Sets granite (or similar)
- Insitu concrete with exposed aggregate
- Asphaltic concrete paving (to match existing)

Parklands

Pavement is to reflect and continue existing parkland finishes (sandstone, gravel and brick). Lighter pavement tones will identify the area as part of the larger parkland system.

Contrasting tones, textures and patterns are to be used to identify the area as unique and different from the general streetscape finishes.

Recommended Paving Types

- Unit Paver ‘Park’ - sandstone coloured concrete (to match existing or similar)
- Brick Paving: to reflect local site history
- Sets granite (or similar)
- Insitu Concrete with exposed aggregate
- Gravel: loose (to match existing) / compacted decomposed granite
- Timber Decking



Pavement pattern examples



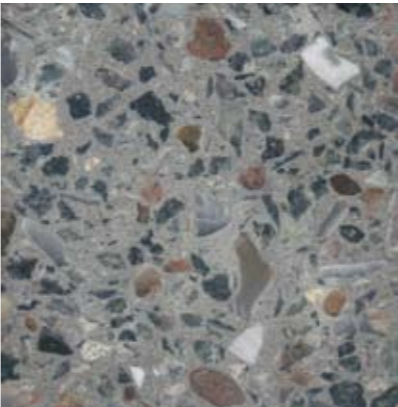
Pavement pattern examples



Brick pavement in herringbone



Exposed Aggregate with detail paving insert



Concrete Unit Paver



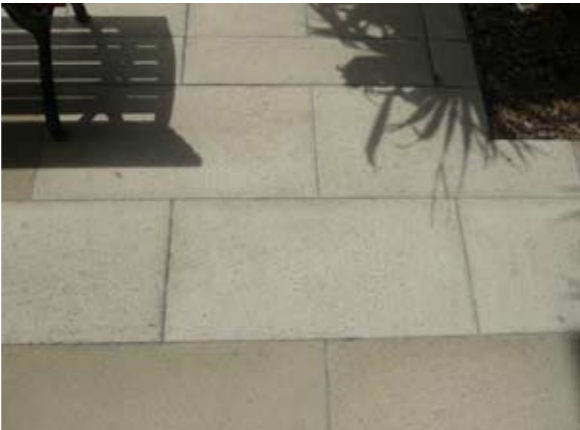
Granite sets

Key Links and Thresholds

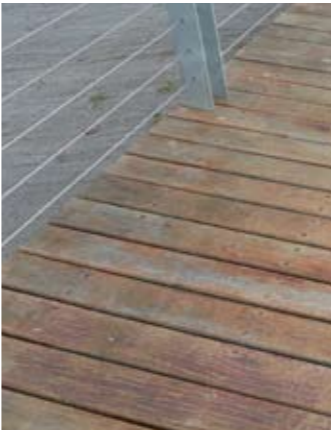


'park' unit pavers - Sandstone coloured concrete

Parklands



'park' unit pavers used at Magdalene Terrace



Timber Decking



Example of contrasting tones to highlight park areas



Brick Pavement



Gravel Path (as existing on site - Discovery point Park)

Urban Elements

Furniture and Fixings

Tree Pits and Road Verges

Change of Level - Stairs, landscape walls and balustrades

Lighting and Precinct Signage



Design Intent

To develop a high finish urban furniture suite, in keeping with the existing site character and concept plan.

Recommended furniture and fixings

- Timber Batten Seat to match existing
- Bench to match existing seat furniture suite
- Custom design furniture in keeping with precinct character
- Litter Bins to match existing and/or Timber Batten cylindrical bins
- Bicycle Racks as per council specifications (Public Domain Technical Manual) and/or custom design
- Bollards stainless steel cylindrical



Recommended bollards



Timber batten cylindrical bins



Bike racks



Suggested custom design bike racks



Existing site seat - timber batten seat with back rest and arm rests



Suggested custom design / site specific furniture in keeping with precinct character



Design Intent

To increase planting to street verges and tree pits where possible to reduce the hard surfaces within the urban environment. In high use / impact areas more urban solutions (ie. tree grates / pavers) are to be considered.

Recommended Tree Pit Surrounds

- Tree Grate to match existing on site
- Terrabond / Paved surround
- Decomposed Granite Gravel
- Planted tree pit
- Raised Planter box

Recommended Street Tree Verges

- planted verges
- car parking bays separated with low planter area
- planting to building interfaces to screen and soften



Tree Grate as existing on site



Decomposed gravel tree pit in urban square



Planted tree pit in footpath pavement



Terrabond tree pit surround



Raised planter box



Planted road verges to soften public domain



Hedging to residential building interface



Planted tree pit between car parking bay



Planted road verges to soften public domain



Concept verge planting to delineate pedestrian paths from roads

Design Intent

Simple, clean, high class finishes. Elements to be hardy and suitable for a high use urban environment.

Recommended Stair Finishes

- Cast insitu concrete or precast concrete
- Unit paver / stone / brick faced to match surrounds
- Stair grip: textured carborundum strip / tooled non-slip nosing

Recommended Tactiles

- Full Stainless Steel
- Tactile Paver (concrete unit)

Recommended Balustrades and Landscape Walls

- Permeable balustrade systems to public domain interface
- Palisade fence (to match existing on site)
- Concrete / Brick / Stone Wall
- Rendered Concrete wall



Sandstone block stairs



Unit Paver Faced Steps



Concrete formwork stairs



Brick Stairs



Aluminium and Glass Balustrade (as existing in precinct)



Palisade fence with stainless steel handrail



Palisade fence (as existing on site)



Park palisade fence (as existing on site)



Sandstone faced wall



Precast concrete wall

Design Intent

Simple, clean, high class finishes. Elements to be hardy and suitable for a high use urban environment.

Recommended Landscape Lighting

- Street Light with outrigger arm and banner fixings
- Street Light with outrigger arm
- Pedestrian light (Pole light with luminaire)
- Landscape ambient lighting (ie. uplights, downlights, wall lights and fairy lights)

Recommended Precinct Signage

- Street signs with precinct branding
- Banner signs to street lights
- Precinct area and park signage



Street Light with outrigger arm and banner fixing



Pedestrian Lights (pole light with luminaire)



Pedestrian Pole Light - broad ambient lighting



Ambient lighting - fairy lights to tree canopies



Ambient Lighting - uplighting to trees



Suggestive street signage 'precinct branding'



Park / Precinct Signage



Custom Design Signage



Banners to lighting elements to promote local events and neighbourhood character

Indicative Material Schedule - Landscape Finishes + Urban Elements

Item	Description	Colour and Finish (reccomended)
Landscape Finishes		
Paving Range		
Unit Pavers	Unit Paver - Stone / Concrete in varying dimensions	Optional colour
	‘Park’ Unit Paver - To match existing parkland paver	Sandstone coloured concrete to match existing
	Brick Pavers	Optional - in keeping with historic brick elements (St Magdalene’s Chapel)
Insitu Concrete	Granite Sets	hand dressed or guillotine edges
	Exposed aggregate	Optional aggregate mix. Optional oxide colour
	Broom finish concrete (or similar)	Recycled aggregate. Optional oxide colour
Gravel	Asphaltic concrete paving	Black
	Compacted Decomposed Granite	Optional
Timber Decking	Loose gravel to match existing parkland paths	Optional
	HWD timber decking, stained with stainless steel fixings	Optional
Tactile Indicators	Full Stainless Steel	Optional (in accordance with Australian Standards)
	Tactile Paver (concrete unit)	
Service Pits		
Telephone Pit covers	Recessed Telephone Pit covers	Paving to match surrounding. Finish flush with surrounds
Access covers	Single and multi part access covers	N/A
SW pit covers	N/A	N/A
Urban Elements		
Tree Pit Surrounds		
Tree Pit Grate	Cast Iron Tree Grate to match existing on site	
Terrabond / Paved Surround	Terrabond / Permeable paving surround	Optional
Gravel	Compacted Decomposed Gravel	Optional
Planted tree pit surround	Groundcover / native grass planting to tree pit surround	N/A
Raised Planter Box	High class finish	Optional
Steps		
Stair Profiles	Cast Insitu concrete or precast concrete.	Plain Concrete
	Unit paver / stone / brick faced to match surrounds	Optional
Stair Grip	Textured carborundum strip	N/A
	Tooled, non-slip nosing	
Walls + Barriers		
Walls	Concrete / brick / stone.	Optional
	Rendered concrete wall	
Balustrades	Visually permeable balustrade system to public domain itnerface	Stainless steel / Black / Glass
Fencing	Palisade fence to match existing	Black
Furniture		
Seat	Timber batten seat to match existing on site	back rest with side arms, stained timber, sub-surface fixing
Bench	Timber batten ‘bench’ to match existing seat suit.	Stainless steel / stained timber, sub-surface fixed
Litter Bins	240lt Litter Bin Casing with cover	Stainless Steel
	Timber Batten and stainless steel litter bin case	Stainless steel / stained timber to match furniture range, sub surface fixed
Bicycle Racks	Stainless Steel Pipe, Grade 304. Fixed Base Plate.	Stainless steel
Bollards	Bollards stainless steel cylindrical	Stainless Steel
Custom Design	Custom design furniture in keeping with precinct character	Optional
Lighting		
Street Light	Pole with single outrigger luminare including banner fixings	Black / Stainless Steel
	Pole with single outrigger luminare	
Pedestrian Light	Pole Light with Luminare (variable styles)	Black / Stainless Steel
Ambient Landscape Lighting	Optional range: uplights, down lights, step / wall lights, fairy lights	Optional

Main Street - Palm Avenue

Botanical Name	Common Name	Mature height x spread	Features	Native
Washingtonia robusta	Cotton Palm	20-25m Ht		
Livistonia australis	Cabbage Tree Palm	15-20m Ht		x
Platanus acerifolia	Plane Tree	15m Ht	Deciduous	
Platanus orientalis digitata	Plane Tree	15m Ht	Deciduous	
Magnolia grandiflora	Magnolia	10m Ht x 6m	Evergreen / flowering	

Mixed Use Street - Deciduous avenue

Botanical Name	Common Name	Mature height x spread	Features	Native
Pyrus Ussuriensis	Manchurian Pear	9m Ht x 7m	Deciduous / flowering	
Liriodendron tulipifera	Tulip Tree	13m Ht x 5m	Deciduous / flowering	
Jacaranda mimosifolia	Jacaranda	10-15m Ht	Deciduous / flowering	
Ulmus parvifolia	Chinese Elm	10m Ht x 11m	Deciduous	
Malus floribunda	Crab apple	6m -8m Ht	Deciduous / flowering	

Residential Street - Evergreen

Botanical Name	Common Name	Mature height x spread	Features	Native
Tristaniopsis laurina	Water Gum	5-15m Ht	Evergreen	x
Waterhousia floribunda ‘sweeper’	Weeping lilly Pilly	10m Ht x 6m	Evergreen	x
Elaeocarpus reticulatus	Blueberry ash	10m Ht	Evergreen / flowering	x
Cupaniopsis anarcardioides	Tuckeroo	8m Ht	Evergreen	x

Lane - screening / tall evergreen

Botanical Name	Common Name	Mature height x spread	Features	Native
Rail Corridor Screening (within 6m offset zone)				
Syzygium australe	Lilly Pilly	5m Ht x 2.5m	Evergreen / flowering	x
Syzygium luehmannii	Lilly Pilly	7m Ht x 3m	Red new growth maturing to green	x
Ceratopetalum gummiferum	NSW Christmas bush	3-5m Ht	Flowering	x
Callistemon Species	Bottle Brush	varies	Flowering	x

Feature Canopy Trees Canopy trees (outside 6m offset zone)

Brachychiton acerifolia	Flaming Illawarra Tree	15-20m Ht	Evergreen / flowering	x
Ceratopetalum apetalum	Coachwood	5m - 8m Ht	Evergreen / flowering	x
Corymbia maculata	Spotted Gum	15-20m Ht	Evergreen	x
Lophostemon confertus	Brush Box	15m Ht	Evergreen	x
Waterhousia floribunda ‘sweeper’	Weeping lilly Pilly	10m Ht x 6m W	Evergreen	x

Species list based upon Rockdale Council Public Domain Plan and Technical Specification
Document with additional recommended species by Turf Design. This is not a
comprehensive list of all suitable species and should be viewed as a guideline only.