

# Coombs Edgeworth Parade Playground

TCCS Design Review Report

**Revision 02**

31 March 2021

**Client:**

ACT Government  
Suburban Land Agency

**Prepared by.**

Redbox Design Group  
Landscape Architects

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Revision	Date	Description	Checked
01	22.09.2020	1 <sup>st</sup> Issue Design Review	Sch 2.2(a)(ii)
02	31.03.2021	3 <sup>rd</sup> Issue Design Review (Changes in report from previous revision are highlighted in yellow)	

## 1. Project Description

The works submitted for Design Review include a new playspace and associated amenity and infrastructure at Holdens Creek Pond, Coombs.

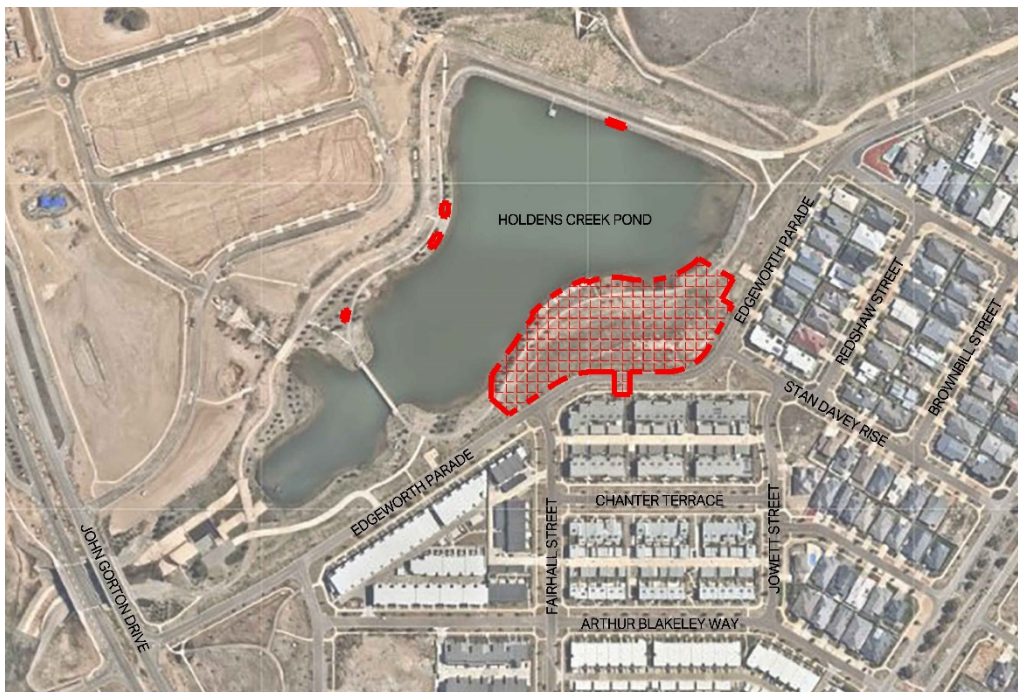
The works seek to complement and add to the existing public infrastructure that has already been installed in Coombs Open Space network and the adjacent suburbs. The new facility is located adjacent to Holdens Creek Pond. This project also includes some additional enhancements to the amenity of the existing pond edge with additional seating.

The design has evolved through lengthy and rigorous consultations carried out by the Suburban Land Agency between early 2018 until end 2019. The resulting feedback from the community has guided the facility in what it will deliver to meet the public demand as provided by the consultation outcomes.

The project is based on a playful interpretation of nature. The key elements include two predominantly timber play structures– the Birds Nest tower, and the Bommy Knockers. The Birds Nest Tower is inspired by a nest in native eucalypt trees, and the Bommy Knockers are inspired by the Plane Tree seed pods.

These two items provide a sense of place which play on the juxtaposition of nature play in an suburban setting that is in proximity to the Murrumbidgee River Corridor . The central themes of the two main play structure permeate the design with a considered palette of elements, colours and materials that strengthens the overall aesthetic and play quality.

**Figure 1.** Project sites



### 1.1 Location

The site is located on part of **Block 12 section 52 Coombs** highlighted in Figure 1

The larger hatch area shown in the diagram is the location of the play space. The smaller red areas mark the locations of the additional seating.

The works are proposed to be completed in one stage.

## 1.2 Parties to the Project

Client	Suburban Land Agency Simon Tennant ph:6285 2599
Landscape Architect	Redbox Design Group Sch 2.2(a)(ii) –ph 6280 4949
Civil / Hydraulic Engineer	Cardno Sch 2.2(a)(ii)
Electrical / Lighting Designer	Ahern Consulting Engineers Sch 2.2(a)(ii) ph: 6284 2215
Irrigation Designer	Total Irrigation Designers Sch 2.2(a)(ii) ph: 0415 672 204
Playground Certifier	Play DMC Sch 2.2(a)(ii) ph 03 9482 2144

The Construction work and Superintendence will be tendered separately by SLA for the selection of a suitable Contractor and Superintendent.

## 1.3 Design and Construction Standards

The following Municipal Infrastructure Standards for the works subject to TCCS maintenance are referenced in the design of this project work :

- MIS 16 Urban Open Space
- MIS 20 Street and Park Furniture
- MIS 21 Recreation Facilities
- MIS 24 Soft Landscape Design
- MIS 25 Plant Species for Urban Landscape Projects
- ACT Standard Specification for Urban Infrastructure
- DUS Design Standards For Urban Infrastructure Works – Part 01 Stormwater
- DUS Design Standards For Urban Infrastructure Works – Part 10 Parking Areas
- DUS Design Standards For Urban Infrastructure Works – Part 12 Public Lighting
- DUS Design Standards For Urban Infrastructure Works – Part 14 Urban Open Space
- DUS Design Standards For Urban Infrastructure Works – Part 15 Playgrounds and Play Equipment
- DUS Design Standards For Urban Infrastructure Works – Part 19 Street and Park Furniture & Barbecues
- DUS Design Standards For Urban Infrastructure Works – Part 21 Irrigation
- DUS Design Standards For Urban Infrastructure Works – Part 22 Soft Landscape Design
- DUS Design Standards For Urban Infrastructure Works – Part 23 Plant Species
- AS 4865.1 – 2004 Play Equipment Parks 1-6
- AS / NZS 4422 – 1996 Playground Surfacing – Specification, requirements and test method
- AS / NZS 4486.1 – 1997 Playgrounds and Playground Equipment
- Australian Standard 3600 – 2009 Concrete Structures
- Australian Standard 2312 – 2002 Protective Coatings
- Australian Standard AS 2870-2011 Concrete slabs and footings

- Building Code of Australia Volume 2 for Materials and Workmanship
- Australian Standard 1170.2 Structural Design Actions
- Australian Standard 4100 Steel Code
- AS 3500.1:2003 Plumbing and Drainage Part 1 :Water services
- AS 3500.3:2003 Plumbing and Drainage Part 3 :Stormwater drainage
- ACTEW Water, Water Supply and Sewerage Standards
- AS/NZS 1158.3.1 – Lighting for Roads and Public Spaces – Pedestrian Area (Category P) Lighting – Performance and Design Requirements, (Applicable categories as defined on drawing no. E121218-100),
- AS/NZS 1158.2 – Lighting for Roads and Public Spaces – Computer Procedures for the Calculation of Light Technical Parameters for Category V and Category P Lighting,
- AS 4282 Control of the Obtrusive Effects of Outdoor Lighting,

## 1.4 Validation and Verification of the Design

Redbox Design Group is prequalified with the ACT Government. In accordance with our quality system, we undertake periodic review of the project outputs, including our sub consultant's inputs to monitor quality of the product.

Ongoing reviews and checks will be carried out during the finalisation of the construction tender documents.

Certifications for the following disciplines are included with this submission (Refer Appendix B)

- Landscape Certification – Redbox Design Group
- Civil Certification – Cardno
- Electrical Certification – Ahern Consulting
- Playground Certification – Play DMC

## 1.5 Scope of Works

The landscape works includes the following items

- Earthworks, cutting and minor filling
- Carparking
- Playground equipment
- BBQs
- Shelters
- Concrete path installation
- Rubber softfall installation
- Terracing and steps (stone, concrete)
- Seating and bins
- Bicycle racks
- Shrub and groundcover planting
- Native tree and deciduous tree planting
- Irrigated and Dryland grass
- Irrigation installation
- Lighting installation
- Bollard and Fence installation
- Signage
- Drainage

## 1.5.1 Landscape

### Existing Trees

Existing trees within the site areas around the Coombs Pond are juvenile, having been planted with the development of the various Capital Works and Estate Construction Works projects.

12 juvenile trees will be removed to facilitate the new playground.

### New Trees

New deciduous and evergreen trees are integral to the design of the Open space surrounding the Playspace, and provide canopy coverage to assist with reduction in heat build up in urban areas.

Tree species are varied and have been chosen to provide future shade, supplementing the shade structures.

Deciduous trees are used to provide amenity to adjacent facilities such as play, picnic and recreation sports and shade to the carpark.

Species – Refer to Planting Plans

Eucalypt trees have been mixed throughout to provide a connection with the natural landscape setting of the river corridor and to continue with the provision of future native habitat trees.

### Shrub Planting

Planting of shrubs and ground covers is restricted to the following"

- Accent planting at the playground
- Between existing rocks and boulders separating grade changes
- Around the main Entry signage wall
- Carpark landscaping

All plants selected are suitable for the climate and soil conditions. Planting beds are edged with concrete edging.

All planting beds are irrigated to encourage establishment. It is envisaged that after several years, once planting has become established that the irrigation can be significantly reduced, providing backup / supplementary watering during dry spells to retain healthy vegetation.

### Grassing

Where there is grassing proposed it is intended to have varied slopes, but no steeper than generally 1:6. .

There are two types are grassing treatment.

Irrigated Grass – small pockets close to the primary play area. It is intended that these irrigated grass areas also provide a cooling effect mitigating urban heat island that is experienced on dry Canberra landscapes

Dryland Grassing – remainder of the areas and reinstatement

### Irrigation

The irrigation system is comprised of sprays to grassed areas and planting beds.

The irrigation system utilises town water supply. Refer Cardno Hydraulic Plans.

Pop-up sprays have been chosen given the issues around dripper tube within garden beds, especially in play areas where the tube becomes exposed on slope/ or where mulch gets displaced.

As much of playground will include sloping land, popnups have the benefit of

- Less pipework within the garden beds
- Flexibility in siting the sprinkler head during construction
- Longer spray shaft can be specified to achieve greater clearance of the spray

### Earthworks

A geotechnical report was carried out on the site to inform the earthworks.

The earthworks will consist predominantly of cut to provide level platforms for the larger play items and amenity area (BBQ and shelters).

The benched and sloping site provides an interesting and playful interaction of spaces linked by a path network that links logically into the neighbourhood path system.

### Carpark

The proposed new carpark will include 8 parallel parking bays and 1 disability space.

Carpark will be a standard asphalt surface with 150 height standard kerb where the existing castellated kerb is removed.

The gradient of the parking bays will follow the longitudinal grade of the road, with a cross fall away from the kerb to a new OCI

The surface of the parking bays is proposed as permeable paver system to increase permeable surfaces.

### Drainage

There are no new SW pits proposed.

Drainage will be provided in all of the permeable playground surface areas eg. In playground mulch and rubber softfall areas.

Drainage will naturally fall towards the SW pond and be filtered through soft landscape before entering the pond.

Path Network

The proposed path network consists of predominantly a 2.0m path system that provides access throughout the playspace and links to the existing suburban path networks including the north eastern active travel path (2.5m AC), to the north of the play space.

All paths achieve 1:20 maximum path grades to enable accessibility to all platforms.

New path connections are provided to link to the existing and new pram crossings on the suburban housing side of Edgeworth Parade.

This work requires the relocation of existing bin pads, and street light.

Predominantly paths are graded to achieve maximum 1:20 to achieve compliant grades in and around the playground linking to the disabled parking bays.

Walls

Walls and grade changes are a feature of the site due to the terrain, and are integrated to provide additional challenge and interest to the play. This has been achieved by providing various methods (steps, slides, rock, rope ladders etc) to take up grades.

Seats, Picnic tables and bins

The proprietary furniture suite has been nominated that includes metal and timber finishes. These elements are fabricated from galvanised steel and are robust and vandal resistant. A variety of benches with and without backs and armrests, and picnic ensembles are provided throughout the site.

There are 4 No. bins located strategically around the activity hub / carpark area.

The seats nominated for around the Ponds is the Iguana Menzies seat which is a continuation of the seat used in Coombs 1,2 and 3, North Coombs and Whitlam.

Lighting and Electrical

The lighting utilises 6.5 metre poles with 1.5 metre outreach arms, with WEF 108-1880 24 Watt fittings to TCCS Standards.

Lighting under picnic shelters is integrated into the Fleetwood roof structures and is subject to detailed design. Consideration will be given to vandal proof fitting.

The electrical supply will be connected to street lighting network off Edgeworth Parade

Both BBQ's include a power outlet integral with the BBQ for maintenance purposes.

One existing street light will be moved on the south side of Edgeworth parade to align with the new pedestrian kerb crossing locations.

An earthing study was commissioned by the SLA to confirm that the existing Evo energy substation SS9935, located on Edgeworth Parade, within 100m of the proposed playground did not require any additional earthing provisions. Refer Appendix F

Bollard & Vehicle Gate Installations

The existing site has access restricted by a mix of castellated kerb and fencing panels above stone retaining walls.

Where castellated kerb is removed for parking bays, vehicle access will be restricted by a 150mm height kerb supplemented with bollards.

The existing ranger gate entry into the open space remains unchanged and will allow access to the site for maintenance purposes.

Picnic Facility

The picnic facility is located integrally within the play ground setting and includes

- 1 x Double bbq within a paved area - electric with power supply, water supply to one tap and associated drainage
- Rubbish bin
- Picnic table settings

Shade

Shade is included via steel fabricated leaf shaped structures with solid / semi permeable roof elements that complement the design aesthetic.

Shade studies have been carried out to ensure that adequate shade is provided to the North facing slope, including embankment slides / slide exists facing south, in addition to general site shading.

Playground Facilities

The playground facilities are divided into separated play activity rooms providing play for a wide age range of approximately 0-15 years.

The Nest Tower is generally a tall element that provides numerous access points and exists, level platforms etc for an age range of approximately 5-15 years

The Bommy Knockers are divided into 3 pods that increase in height off the ground that caters for an approximate age range of 0-8 years.

Various supplementary proprietary play items include

- Embankment slides and access ways (note plastic slides have been selected to mitigate heat effects due to north facing slide)
- Swings with a variety of swing seats
- Sand /water play
- Mini tramps
- All abilities Carousel
- Various smaller ancillary balancing elements

## 1.5.2 Products

Proprietary furniture products which have been nominated for this include furniture and play elements. These are nominated in the Schedules on the Drawings

Refer Dwgs 1503 901-910 MAT

Refer also to Appendix G for playground equipment information as issued by the Supplier for proprietary off the shelf products that are incorporated in the playground.

## 1.6 Exception Clause or Deviations from Standards

The works comply with all relevant Standards for Landscape Works. The following clarifications are noted.

MIS 16 Urban Open Space

- The Open Space typology is a hybrid Community Recreation Park and Neighbourhood Park. The facilities generally accord with those offered in a Community Recreation Park, but lack the inclusion of a toilet block and sports facility

MIS 21 Recreation Facilities

- The typology is Central Community Play Space
- Plastic slides have been selected as the site is a north facing slope. Where embankment slides have a south facing slide exit, shade studies have been carried out to place overhead shade during Summer.
- Fence barrier has been included between the playground and the Holdens Creek Pond in response to community comment. The distance between the play elements and the water is more than 20m.
- Use of timber in playground as a response to the project brief including the requirement for the use of natural materials.

## 1.7 Stakeholder Consultation

Refer Appendix A for Correspondence with TCCS during design development of play space and furniture installations.

Refer Appendix E for correspondence with TCCS during Design Review, and Icon water in principle approval for Water Services connection

## 1.8 Operation and Maintenance – Technical Information

Landscape – standard horticultural maintenance

Grass Areas:

- Mowing as required

Irrigation

- WAE information will be provided at WAE. Mains water supply
- Irrigation is operated from the Mains DB board – refer Electrical dwgs

#### Mulched Planting beds

- Weed removal
- Topping up of mulch
- Spraying of edges

#### Tree Planting

- Tree watering is required for establishment depending on climatic conditions

#### Proprietary Furniture items

- Proprietary product Information to be provided at WAE (minimal maintenance required)

#### Proprietary Play items

- Proprietary product Information to be provided at WAE

#### Electric BBQ

- Proprietary product Information to be provided at WAE

## 1.9 Drawing Schedule

Schedule is provided in Excel format.

## 1.10 Draft Construction Surveillance Plan

Draft Construction Surveillance Plan outlining Hold and Witness Points.

Ref No	Detail	Hold Point	Witness Point	Date	Pass (P)/ Fail (F)
<b>1</b>	<b>PROVISION FOR TRAFFIC</b>				
1.1	Approval of Temporary Traffic Management Plan	X			
1.1A	installation of TTM	X			
<b>2</b>	<b>EARTHWORKS</b>				
2.1	Clearing Operations - Care of Trees	X			
2.2	Earthworks operations - survey setout to design lines and levels	x			
2.3	Stockpiling of topsoil - approved sites	x			
2.7	Final Preparation of Subgrade levels	X			
2.10a	review of approved sediment and erosion control plans	X			
210.b	Review of installed sediment and erosion controls		X		
<b>3</b>	<b>UNDERGROUND SERVICES</b>				
3.1	Setout of trenches for services	X			
3.7	Inspection of reinforcement	X			
3.6	Submission of details for SW materials	X			

3.8	Submission of details of subsoil drain materials	X			
3.9	Submission of details of conduit materials	X			
3.12	Submission of details of water service materials	X			
3.13	Installation of drainage pipe prior to backfill	X			
<b>6</b>	<b>CONCRETE KERBS FOOTPATHS AND MINOR WORKS</b>				
6.1	Placement of concrete	X			
6.3	Wall and stair and terracing setout prior to formwork	x			
6.4	Placement of formwork	x			
<b>8</b>	<b>INCIDENTAL WORKS</b>				
8.7	Setout of bollards	x			
8.16	shop drawings for proprietary furniture	x			
8.17	Shop drawings for signage elements	X			
8.18	Footing plans for play equipment	X			
8.20	shop drawings for shade structure	x			
8.21	Engineering certification for shade structure	X			
8.22	Setout of furniture	x			
8.23	Rubber softfall product confirmation	x			
8.24	Sample of pine bark	x			
8.25	Setout of play equipment	x			
8.26	Shop drawing for play equipment	X			
8.28	Warranty and certification and shop drawings of all play equipment	X			
8.32	Setout of fencing and screens	X			
<b>9</b>	<b>LANDSCAPE</b>				
9.1	Backfilling above subsoil drain	X			
9.5	Spreading of stockpiled topsoil		X		
9.6	Supply of topsoil	X			
9.6A	Preparation of subgrade prior to grassing	x			
9.7	Spreading of topsoil to grassed areas		X		
9.8	Placement of topsoil in planting beds		X		
9.9	Planting		X		
9.9A	Inspection of plant material	X			
9.10	Supply and installation of root barriers	X			

9.11	Supply and placement of mulch	x			
9.12	Placing of works on consolidation	X			
9.13	Handover of softworks	X			
<b>10</b>	<b>ROAD SIGNS</b>				
10.1	Manufacture of signs	X			
10.2	Excavation for foundations of sign support structure	X			
10.3	Installation of signs	X			
<b>11</b>	<b>PAVEMENT MARKING</b>				
11.1	Supply of paint materials	X			
11.2	Supply of thermoplastic material	X			
11.3	Supply of glass beads	X			
11.7	Setout of roadmarking works	X			
<b>12</b>	<b>SEGMENTAL PAVING</b>				
12.1	Paver conformance and Testing	X			

## 1.11 Asset Specific Requirements

### Roads

Road Safety Audit	Not relevant
Pavement Design Report	Not relevant
Pavement Plan	Provided
Longitudinal Sections, typical X sections and detailed X sections	Provided
Horizontal alignments, intersection details, rear lane access, driveways, bus routes, bus stops, indented parking, on street parking, kerb details	Provided
Noise and Acoustic Analysis	Not relevant
Maintenance access tracks and fire trails	Not relevant
Retaining Walls	Not relevant
Street furniture	Not relevant
Guide posts	Not relevant

### Pedestrian and cycle facilities

Compliance with Chapter 13 of Design Standards	Not relevant
Details on- road cycle lanes	Not relevant
Path geometry and widths	Provided where relevant

Pedestrian crossing and access covering kerb ramps, cross overs, access ramps, rest rails, access lanes and access to buildings	Provided where relevant	12
Path continuity through driveways	Not relevant	
Tactile paving	Not relevant	
Green surface treatment for cyclist conflict areas on road	Not relevant	
Signage for community paths	Not relevant	
Path linkages with adjacent stages / suburbs, and main activity nodes such as schools and shops	Provided	

## Street Lighting

Lighting layout showing connection and cable routes	Supplied where relevant	
Connection approval number marked on plans and ACTew AGL approval letter	Not required	
Iso lux as requested by TCCS for V category roads and caparks	Not relevant	
Spacing table for P category lighting designs	Not relevant	
Asset Numbers marked on plans	Not relevant	
Completed form Attachment A	Not relevant	

## Landscape

### Soft Landscape

Landscape Management and Protection Plan	Supplied	
Cut and Fill Plan where trees impacted	Not relevant	
Readable Composite verge plan	Not relevant	
Landscape Plans showing plant species	Supplied	
Vegetation surveys	Not relevant	
Visual impact assessment	Not relevant	
Soft landscaping adjacent to Open space	Supplied	
Treatment of mounds, verges, medians, batters and a schedule of plant species	Not relevant	
Clearances from other infrastructure and details of root barrier	Supplied where relevant	

### Hard Landscape

Readable Composite verge plan	Not relevant	
Landscape plans indicating fencing, paving and materials, external lighting and services	Supplied	
Irrigation, paving, play equipment, vehicle barriers, drainage and fencing	Supplied	
Street and Park furniture	Supplied	

Special structures such as BBQ's

Supplied

13

## Services

Site servicing drawings showing all hydraulic services, ground levels, floor levels, location of sumps and overland water flow, etc.

Supplied

Confirmation from the service authority that the existing infrastructure can accommodate the new development.

Supplied where relevant

Location of existing trees relative to existing and proposed services.

Supplied where relevant

Show the location of all utility services, survey marks, structures, etc.

Supplied where relevant

Identify services to be relocated and/or abandoned as a consequence of implementing the Works

Supplied where relevant

Details of alteration to existing services and the appropriate timing for these alterations in order to allow the Works to proceed on schedule.

Supplied where relevant

Existing public infrastructure and landscape dilapidation report.

Not relevant

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## Appendix A – Consultations

The following Consultations have been carried out with TCCS during the course of the project.

Date	Stakeholder	Discussion
18.02.2019	TCCS / SLA/ Cardno / RDG	General presentation of Design of Playspace.
31.07.2020	TCCS / SLA / RDG	Presentation to Land Managers of the updated design post community consultations and further design development.
25.08.2020	TCCS	In principal support for installation of seats on existing stone wall nook on Coombs Pond B dam wall

## Appendix B – Certifications by Consultants

Playground Certification of the overall design is pending review by Play DMC.

Appendix C – Structural Certification Shelters and Play equipment  
(Play Towers)

## Appendix D – Proprietary product information and Compliance

Playground Certification of the overall design is pending review by Play DMC.

## Appendix E – Authority Approvals

External Services Plan connection to mains Water **has received In Principle support from Icon Water**

Minor Works approval was lodged by Cardno on 15<sup>th</sup> September 2020.

**A Development Application has been submitted and is pending approval following minor comments / updates from Icon and TCCS**

## Appendix F – Earthing Study

Appendix G – Markup of changes to dwgs