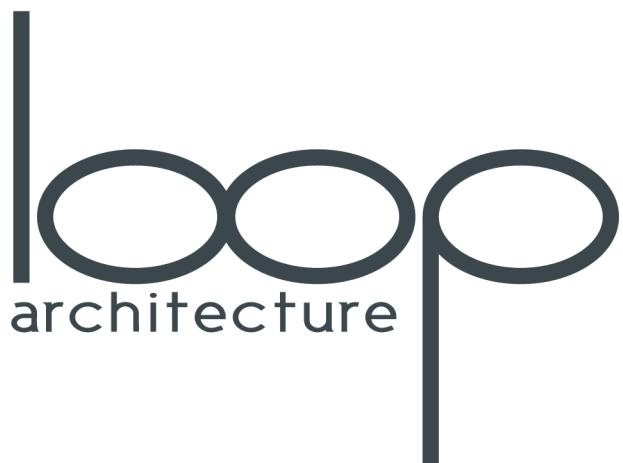


Cressy Swimming Pool Master Plan

Northern Midlands Council



June 2017 (Update)

INTRODUCTION

Loop Architecture (LOOP) has been engaged by the Northern Midlands Council (NMC) to undertake analysis of the existing facilities of the Cressy Swimming Pool with specific reference to identification of deficiencies and opportunities for improvement. LOOP has also engaged Lange Design to assist with broad-brush Landscape assessment in addition to Core Construction Management to provide an overall opinion of probable costs for the recommended outcomes identified.

The Cressy Pool is located upon Main Street, which runs through the town centre and is within close proximity to the Bowls Club and Recreation Ground. The current facilities consist of a 25m pool, toddlers' pool, electric BBQ, shade area, contemporary changerooms (circa 2010) and kiosk.

Current use of the existing facilities is seasonal (Late November through to March) and generally consists of local patronage and school groups in addition to swimming club, lessons, program and private functions.

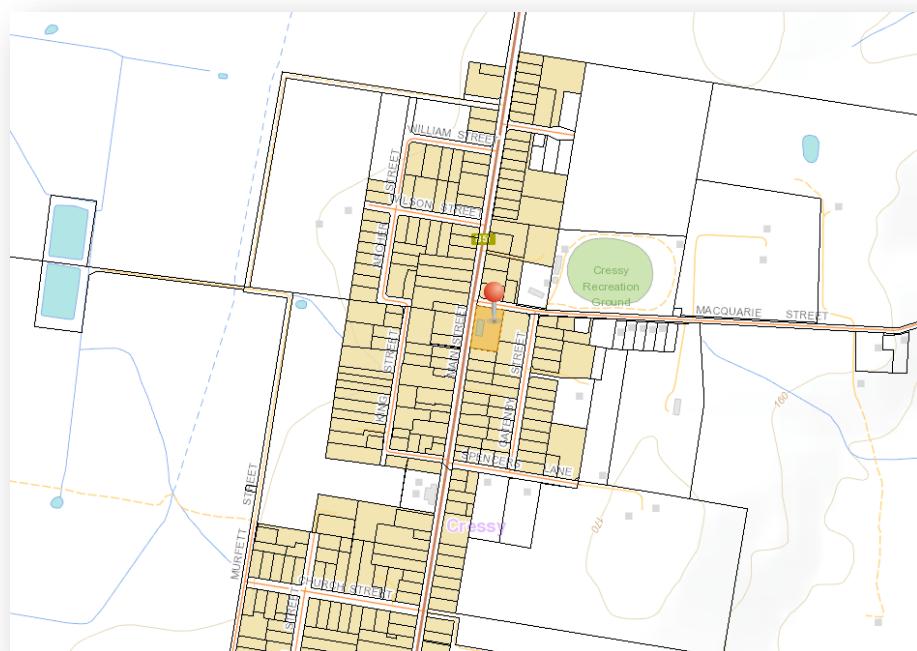


Figure 1 - Location of existing Pool Facilities within Cressy Township

KEY STAKEHOLDERS

Individual consultation was undertaken with members of the executive committee who are also responsible for the on-going voluntary maintenance and operation of the facility.

ASSESSMENT CRITERIA

The key stakeholders were engaged to provide input in relation to current issues and deficiencies in addition to formation of a 'wish-list' and recommendations for the future development and growth of the pool and ancillary facilities. These included:

Broader Planning Issues:

- The existing location is upon the town's main thoroughfare but is generally obscured from view with limited visual appeal.

- Vehicle access and parking is available on site but unmarked and in need of resurfacing.
- Pedestrian entry and access is uninviting and ambiguous.
- Elevated location is susceptible to wind.
- Location within township does not capitalise upon available views and aspect.

Facility Related Issues:

- The overall structure of the main & toddler pools appears to be sound and serviceable with no significant structural defects reported.
- Inadequate shading devices available upon the pool concourse.
- Access to the main entry is uninviting and not easily identified from the street.
- Existing Kiosk is inadequate and requires reconfiguration to function effectively.
- The existing Kiosk is also vulnerable to security breaches due to access points hidden from public view.
- Existing pool concourse requires resurfacing and removal / replacement of the capping around the pool edge.
- Pool is currently solar-heated which appears adequate but requires promotion.
- The existing changerooms / amenities are recently constructed (2010) and appear adequate.
- The playground is currently located within the pool compound but requires appropriately designed fencing / screening / access.
- Toddler pool requires adequate shading.
- The above-ground pool covers are poorly located.
- Pump & Filter facilities are generally considered to be adequate but in need of some cosmetic improvement / integration into adjacent pool facilities.
- Water treatment options require investigation.
- BBQ area is considered essential for fund-raising / social events
- Shaded area adjacent amenities currently underutilised.
- Carpark treatment and signage requires upgrading.
- Possibility of total pool enclosure raised as an option for all-year-round usage.

Accessibility

Whilst the Cressy Swimming Pool is centrally located within the township, access to the pool entrance is not readily obvious to non-local visitors. Pedestrian access from Main Street is via the existing carpark and located at the rear of the existing Kiosk, obscured from view.



Figure 2 – Existing access and parking from Main Street

Vehicular access is currently located upon the southern boundary. Off-street parking appears to address current needs but is in need of resurfacing and identification to maximise capacity.

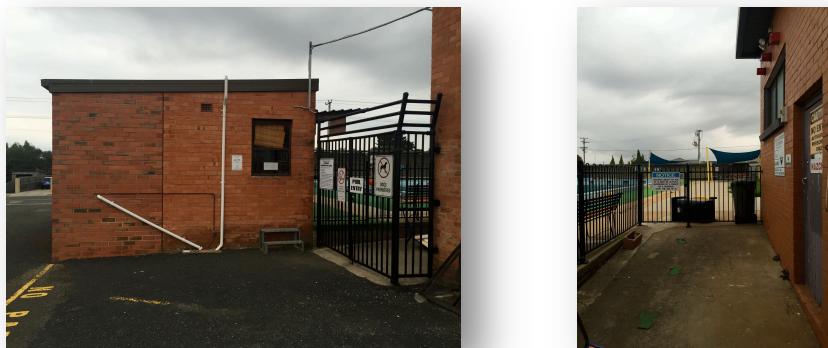


Figure 3 – Existing pedestrian access is obscured from Main Street.

Relocation of the main pool entrance to the street frontage would afford opportunities to provide a prominent and celebrated access point to the facility in addition to improvement of operational and security issues. Appropriately designed surfaces, fencing and landscaping should respond to the streetscape and capitalise on views to and from the site.

Proposed works upon the existing premises would also provide an opportunity to address current accessibility standards. Provisions within the current National Construction Code would apply.

Essential Services / Infrastructure

Whilst detailed investigation of existing services and infrastructure has not been undertaken, the current operating condition of the Cressy Pool appears to suggest that basic services are adequate.

The overall structural condition and hydraulic integrity of the pools also appear to be adequate and fit for purpose, subject to detailed improvement of the pool concourse in addition to additional shading. Application of new concourse paving material, in conjunction with appropriate signage / surface treatment, would increase pedestrian safety around the pool areas.



Figure 4 – Pool capping and concourse require upgrading to safer options.

Operational issues relating to the current method of chlorination have been identified and subsequent advice sought on its improvement and on-going sustainability. These are included with this document and incorporated into the fiscal analysis for the potential development of this facility.

Amenity

The subject site benefits from unimpeded northerly aspect and is afforded a range of rural vistas and distant mountain views. The elevation of the site, however, does create some exposure to the elements and requires substantial protection from prevailing winds.

The current pool facility is also visually separated from Main Street and adjacent Memorial Park which would benefit from appropriately designed barriers / fencing that facilitated valuable visual links to the pool from these areas via transparent sections and/or appropriate articulation of solid panels.

Appropriately designed screening would afford opportunities to capitalise on the views at hand whilst assisting with privacy to and from the site.

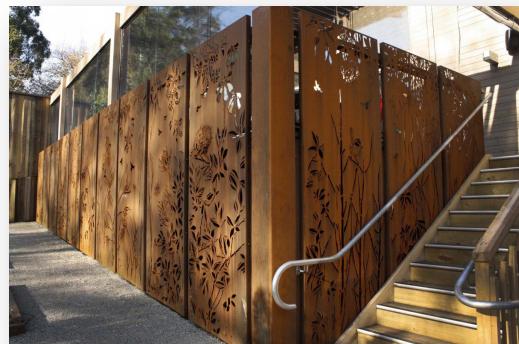


Figure 5 – Potential fencing options may include gaps, cut-outs or transparent infill to capitalise upon views whilst maintaining privacy.

Building Constraints

The existing Kiosk facilities are out-dated and suffer from a general lack of space, with particular attention drawn to storage and inadequate Kiosk area. Redevelopment of the existing Kiosk space would afford improved storage in addition to separate Office / Store for non-retail items, i.e. first aid / safety equipment.



Figure 8 – Existing amenities are outdated and currently used for storage of most maintenance and safety equipment.

CAPITAL COSTS

The development of the Cressy Pool facility poses a range of operational and construction complexities, which will ultimately reflect upon overall construction costs. Fortunately, development options may be implemented progressively to stagger capital investment in accordance with available funding options and timeframes.

Total anticipated costs for this development are currently in the order of **\$822,870.00** (inc. GST) and detailed within Core Construction Management's budget analysis (attached). We note the inclusion of significant design / development contingencies, due to the 'broad-brush' nature of master planning documentation which could be ratified or contained during the design development and documentation phases of the project, should it proceed. Full enclosure of this facility has not been included at this time.

RECOMMENDATIONS

Implementation of works contained within the Cressy Swimming Pool Masterplan are prioritised as follows:

1. Redevelopment of Kiosk / Entry – Considered a high priority due to lack of storage space and opportunities for improved street address of the pool facility.
2. Pool concourse & fencing – Opportunities to minimise OHS issues, gain access to views and increase visual connection to the streetscape and Memorial Park beyond.
3. Water Treatment – Opportunities to minimise operational risks & OHS issues.
4. Shade structures – Provision of additional structures to maximise shade provision throughout the site & contribute to the street frontage.
5. New Car Parking – Opportunities to maximise vehicle capacity & improve presentation to the streetscape.
6. Playground & Signage – Opportunities to increase visitor attraction via improvement of identification & improved interaction of play areas with the pool facility.
7. Portable BBQ & Fixed / Portable Seating – Provision of mobile BBQ options to adapt to seasonal usage & varied user groups. Construction of fixed seating platforms in addition to provision of relocatable seating options to adapt with varied user groups / functions / etc.

CONCLUSION

The development of the Cressy Swimming Pool, although a significant project in its entirety, could be progressively completed in accordance with a logical sequence of implementation and a structured budget allocation.

The long-term integrity of the pool structure, however, cannot be guaranteed without extensive investigation of the pool concrete & reinforcement (via core sampling), which may influence the degree of expenditure.

The benefits of achieving a contemporary presentation, in conjunction with improved function and access, have the potential to foster increased usage from local and visiting patrons in addition to inclusion of the pool precinct within the overall Cressy Township visitor experience. Furthermore, given the facility's location within close proximity to the Longford township, future consideration may also be given to facilitating year-round usage via enclosure of the pool areas.



Tony Purse AIA
BA Env.Des. B.Arch
Registered Architect (CC 503E)

Appendix 1 – Core Construction Management Budget Analysis

Cressy Swimming Pool Masterplan - Revision One

Job Name :	<u>LOOP-CRESSY</u>	<u>Job Description</u>
Client's Name:	<u>LOOP Architects</u>	Cressy Pool Master Plan

Trd No.	Trade Description	Trade	Cost/m2	Trade
		%		Total
1	Area 1 - Water Treatment	3.69		27,600
2	Area 2 - Entry signage	1.66		12,420
3	Area 3 - Resurface existing carpark	7.36		55,062
4	Area 4 - Pool surrounds	36.16		270,480
5	Area 5 - New entry	12.91		96,600
6	Area 6 - Shade structures	17.34		129,720
7	Area 7 - Sun Deck	3.98		29,808
8	Area 8 - Playground	4.30		32,154
9	Area 9 - Internal screen	1.66		12,420
10	Area 10 - Bus Shelter	1.84		13,800
11				
12	Design fees allowance	9.09		68,000
13				
		100.00		748,064

Final Total : \$	748,064
G.S.T. 10.00% :	74,806
Final Total Incl. G.S.T. : \$	822,870

Cressy Swimming Pool Masterplan - Revision One

Job Name :	<u>LOOP-CRESSY</u>	Job Description				
Client's Name:	<u>LOOP Architects</u>	Cressy Pool Master Plan				
Item No.	Item Description	Quantity	Unit	Rate	Mark	Amount
					Up %	
<i>Trade : 1 <u>Area 1 - Water Treatment</u></i>						
1	Tassie Pools and Spas	1.00	Allow	20,000.00		20,000.00
2						
3	Contingency 20%	1.00	Item	4,000.00		4,000.00
4	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	3,600.00		3,600.00
<u>Area 1 - Water Treatment</u>					Total :	27,600.00
<i>Trade : 2 <u>Area 2 - Entry signage</u></i>						
1	Paving	20.00	m2	100.00		2,000.00
2	Landscape	1.00	Item	2,000.00		2,000.00
3	Signage	1.00	Item	5,000.00		5,000.00
4						
5	Contingency 20%	1.00	Item	1,800.00		1,800.00
6	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	1,620.00		1,620.00
<u>Area 2 - Entry signage</u>					Total :	12,420.00
<i>Trade : 3 <u>Area 3 - Resurface existing carpark</u></i>						
1	Allowance for resurfacing	665.00	m2	60.00		39,900.00
2						
3	Contingency 20%	1.00	Item	7,980.00		7,980.00
4	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	7,182.00		7,182.00
<u>Area 3 - Resurface existing carpark</u>					Total :	55,062.00
<i>Trade : 4 <u>Area 4 - Pool surrounds</u></i>						
1	New paving (Includes removal of existing)	680.00	m2	200.00		136,000.00
2	Perimeter fencing	120.00	m	500.00		60,000.00
3						
4	Contingency 20%	1.00	Item	39,200.00		39,200.00
5	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	35,280.00		35,280.00
<u>Area 4 - Pool surrounds</u>					Total :	270,480.00

Cressy Swimming Pool Masterplan - Revision One

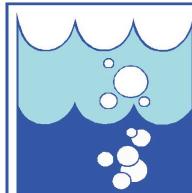
Job Name :	<u>LOOP-CRESSY</u>	Job Description
Client's Name:	LOOP Architects	Cressy Pool Master Plan

Item No.	Item Description	Quantity	Unit	Rate	Mark	Amount
						Up %
<i>Trade : 5 <u>Area 5 - New entry</u></i>						
1	Paving	50.00	m2	100.00		5,000.00
2	Entry	1.00	Allow	15,000.00		15,000.00
3	Upgrade kiosk	50.00	m2	1,000.00		50,000.00
4						
5	Contingency 20%	1.00	Item	14,000.00		14,000.00
6	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	12,600.00		12,600.00
<u>Area 5 - New entry</u>					Total :	96,600.00
<i>Trade : 6 <u>Area 6 - Shade structures</u></i>						
1	Allowance for new cantilevered shade structures	185.00	m2	400.00		74,000.00
2	Shade structure over grassed area	4.00	No	5,000.00		20,000.00
3						
4						
5	Contingency 20%	1.00	Item	18,800.00		18,800.00
6	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	16,920.00		16,920.00
<u>Area 6 - Shade structures</u>					Total :	129,720.00
<i>Trade : 7 <u>Area 7 - Sun Deck</u></i>						
1	New elevated timber sun deck	36.00	m2	600.00		21,600.00
2						
3	Contingency 20%	1.00	Item	4,320.00		4,320.00
4	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	3,888.00		3,888.00
<u>Area 7 - Sun Deck</u>					Total :	29,808.00
<i>Trade : 8 <u>Area 8 - Playground</u></i>						
1	New fencing	35.00	m	300.00		10,500.00
2	Softfall	160.00	m2	80.00		12,800.00
3						
4	Contingency 20%	1.00	Item	4,660.00		4,660.00
5	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	4,194.00		4,194.00

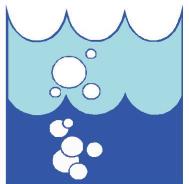
Cressy Swimming Pool Masterplan - Revision One

Job Name :	<u>LOOP-CRESSY</u>	Job Description				
Client's Name:	<u>LOOP Architects</u>	Cressy Pool Master Plan				
Item	Item Description	Quantity	Unit	Rate	Mark	Amount
No.					Up %	
<u>Area 8 - Playground</u>					Total :	32,154.00
<i>Trade : 9 Area 9 - Internal screen</i>						
1	New screening	30.00	m	300.00		9,000.00
2						
3	Contingency 20%	1.00	Item	1,800.00		1,800.00
4	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	1,620.00		1,620.00
<u>Area 9 - Internal screen</u>					Total :	12,420.00
<i>Trade : 10 Area 10 - Bus Shelter</i>						
1	New shelter	1.00	Allow	10,000.00		10,000.00
2						
3	Contingency 20%	1.00	Item	2,000.00		2,000.00
4	Allowance for builders preliminaries, profit and overhead recovery 15%	1.00	Item	1,800.00		1,800.00
<u>Area 10 - Bus Shelter</u>					Total :	13,800.00
<i>Trade : 11</i>						
					Total :	
<i>Trade : 12 Design fees allowance</i>						
1	Allowance for design fees	1.00	Item	68,000.00		68,000.00
<u>Design fees allowance</u>					Total :	68,000.00
<i>Trade : 13</i>						
					Total :	

Appendix 2 – Tassie Pools & Spas Filtration / Treatment Options



TASSIE POOLS AND SPAS



Web: www.tassiepools.com.au

Email: sales@tassiepools.com.au

PH : 03 6334 1981

ABN 27 991 779 493

FAX: 03 6331 7789

24th April, 2016

Re Northern Midlands Council
PO Box 156
Longford
TAS. 7301

PLEASE FIND QUOTE AS REQUESTED. IF YOU HAVE ANY FURTHER QUESTIONS
PLEASE CALL ME ON THE ABOVE PHONE NUMBER FOR CLARIFICATION.

SUPPLY & INSTALL

NORTHERN MIDLANDS POOLS

CHEMIGEM DM55VV CONTROLLER & FEEDER (inc. valves)	\$4500
CHLORINE FEED DRUMS	\$500
ACID & FEED DRUM	\$100
OFF-LINE PUMP	\$725
PIPE & FITTINGS	approx. \$1060
INSTALLATION	\$600
	TOTAL \$7485
	GST 10% \$749
(Not including electrical wiring if required.)	TOTAL INC. \$8234

CHEMIGEM DM55VE CONTROLLER & FEEDER	\$4200
DM55 FEED VALVES	\$375
SOLENOID VALVE	\$270
C50 TABLET FEEDER	\$350
ACID & FEED DRUM	\$100
OFF-LINE PUMP	\$725
PIPE & FITTINGS	approx. \$1060
INSTALLATION	\$960
	TOTAL \$8040
	GST 10% \$804
(Not including electrical wiring if required.)	TOTAL INC. \$8844

PULSAR TABLET FEEDER	\$10000
ACID PUMP & BECSys CONTROL	\$8000
	TOTAL \$18000
	GST 10% \$1800
(Not including electrical wiring if required.)	TOTAL INC. \$19800

OFF-LINE 8 x MARK 7 OZONE/PM350 PUMP ADD TO ABOVE	TOTAL \$17500
	GST 10% \$1750
(Not including electrical wiring if required.)	TOTAL INC. \$19250

CAL HYPO Granular chlorine 65-70% STRENGTH \$6/kg	= \$9.25/kg Cl gas EQUIV.
CAL HYPO Pulsar Briquettes 65% STRENGTH \$12.50/kg	= \$18.30/kg Cl gas EQUIV.
NaCl Liquid Chlorine 12% STRENGTH \$2.20/l	= \$19.25/kg Cl gas EQUIV.



The first option uses chlorine and acid valves in front of the pump and works on suction from the pump drawing liquid or mixed up granular chlorine in before the pump, filter and heaters. You can add the offline pump in to run this system returning treated water after the heaters.

I have worked the second option using the existing filter pumps and plumbing back in to the return line after the heaters with the chlorine tablet feeder to avoid corrosion on the heaters. This will feed acid in front of the pump and use chlorine tablets in the feeder after the heaters. The tablets are more expensive than granular but you do not have the issue of mixing up the granular and can feed in after heaters etc.

The Pulsar feeder uses small tablets or briquettes which are better to handle than granular chlorine, eliminating fines and dust and dissolve slowly but are more than double the cost of granular chlorine. Combined with the acid pump and BECSys control system the initial set up is expensive but has the ability to upgrade to remote access and data logging.

Ozone is a much more effective sanitiser than chlorine but we still require a chlorine or bromine residual in a commercial situation so use it to reduce chlorine levels and break up chloramines which give the odour and stinging of eyes. If the pools were indoor I would suggest it as essential but outdoor it will reduce the chlorine usage but more to improve water quality and bather comfort. You could use half the ozone input and get an improvement in water quality but only a minimal reduction in chlorine usage.

Calcium hypo is my preference as our fill water is generally low alkalinity and hardness so we add some calcium to bring this up. It is available in granular, 200gm tablet or 20gm briquette form with granular by far the cheapest form. It has a good shelf life and raises the pH slightly so a small amount of acid is required to balance this. The down side with granular is it is a powder form so some dust when handling and you have to be careful adding a small mount of water to a large amount of dry chlorine. Some maintenance is required with feed lines etc as calcium builds up over time.

Liquid chlorine is easy to use and being NaCL does not require as much work maintaining feed lines and solenoids etc. It starts at 12% strength and drops off from that so 5 times the volume used for the same strength of chlorine. Being salt based it does increase the TDS of the water which can only be reduced by replacing some pool water with some fresh.

Chlorine gas I have not included as I assume that is what you are trying to get away from. Handling and storage is a major issue with the gas and considerable training is required to work on the gas feed and controls. Chlorine gas is 100% strength in comparison and why we work the cost of other forms to the Cl gas equivalent. It lowers the pH of the water considerably so requires a caustic solution to balance up. Again aggressive solutions that need to be stored and fed in.

The figures are approximate costings and would need a site inspection and confirmation of current pricing for a definite quote as it is a while since I have been on site at Ross. Sorry for the delay getting this to you. Give me a call if you have any questions.

Regards David Payne

Appendix 3 – AJL Consulting Engineers Structural Assessment



OUR REF. 16175

14 March 2017

Northern Midlands Council
C/- Tony Purse
Loop Architecture
Level 1, 57 George Street
Launceston TAS 7250

ATTENTION: T PURSE

Dear Tony

NORTHERN MIDLANDS COUNCIL - CRESSY SWIMMING POOL – CONDITION ASSESSMENT

AJL Consulting Engineers were appointed by the Northern Midlands Council to undertake a structural condition assessment of the Cressy swimming pool. The objective of the assessment is to establish the current condition and life of the pool.

The assessment includes the following:

- Structural condition assessment of the main swimming pool.
- Structural condition assessment of the toddler swimming pool.

AJL carried out a limited visual inspection of the pools on the 13th December 2016 and are unaware of any previous assessments at this site.

The assessment was conducted as a walk through visual inspection only, the pools were full at time of inspection, preventing a detailed visual inspection. No destructive or concrete core sampling of either of the pools has been undertaken as part of this study. Similarly no water sampling or underwater assessment of pool shell has been undertaken.

The facility comprises of the following:

- 20m painted unheated outdoor pool.
- Painted unheated toddlers pool.
- Pay booth / Kiosk.
- Change rooms / toilets.

Whilst no construction drawings of the pools were available the method of construction appears to consist of an in-situ concrete base slab with in-situ concrete walls poured over with masonry capping block. Each pool has construction joints along their base and up their walls.

The general condition of the pools are as follows:

- Both pools were full at the time of our inspection and thus a close visual inspection of the pool walls and base were not possible. However, we were advised by a life guard that little to no water loss was evident through the concrete structure of either of the pools, only some evaporation and splash loss is evident during the summer.
- Several of the capping blocks on top of the pools have become dislodged.

Distribution
- Architect
- File Copy

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Launceston

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ABN 58 984 323 237



- A minor crack has opened up on the external face of the main pool at a pool construction joint approximately one third the way along the western side from the southern end. It is unclear if this crack is mirrored on the internal face of the pool.
- The pavement slabs around the pools have some slight cracking but generally are in good condition.
- Minor differential settlement along the length of each of the pools walls.

The exact age of the pool is unclear but it is estimated to have been constructed in the 1960's and thus, we conclude that the design life has been exceeded. Whilst no major evidence of deterioration is present, the condition of the structural reinforcement and any allowance for safety factors is unknown.

It is recommended that consideration be given to the following remedial works to enhance the structural design life of the pools;

- Re-painting of the pool with a water proof membrane.
- Installing a commercial grade vinyl liner to provide an improved surface and negate crack and expansion joint repairs, water leakage and ongoing repainting.
- Carry out epoxy crack injection to concrete elements if deemed required upon closer inspection when empty.
- Remove and reinstate damaged capping blocks to edge of pool.
- Construction joint reinstatement with seal.
- Monitor pool walls for further settlement.

The above mentioned works will prolong the use of the pools but do not provide guarantee future structural defects will occur. Without an extensive investigation and testing of chlorine attack to the concrete and steel reinforcement, the design life of the pools is indeterminate.

Should you have any further queries please do not hesitate to contact us.

Yours faithfully,

AJL CONSULTING ENGINEERS PTY LTD

A handwritten signature in blue ink that reads "Alan J. Leake".

Alan J. Leake
Director
B Eng (Civil) // MIEAust // CP Eng

Distribution
- Architect
- File Copy

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