

TLC

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General Builders specialising in Free
Form concrete inground pools,
Decks, Patios, Gazebos, Concreting,
Paving, Retaining Walls, Fencing,
Refurbishment / Restoration of Pools
and Decks, Landscaping and
general earthworks

Project: Airlie Beach Swim School

Project basic guidelines for the design and development of the Airlie Beach Swim School are:

1. Main Pool design should be 25 metres x 12.5 metres (5 lanes). This is considered to be "half Olympic" size, and is a prerequisite for any form of competition or commercial training.
2. It should be designed with a disabled access wheelchair ramp to one side
3. Changing facilities have not been requested or allowed for
4. The pool should be designed to operate on minimum staffing levels (TLC recommendation) therefore automatic chlorination and ph control has been allowed
5. Starting blocks are required both ends
6. The pool should have floating lane markers (TLC recommendation) for competition training
7. The pool should have stainless steel ladder access in at least one point (TLC recommendation)
8. Drain grating surrounding pool, to allow for water recovery (TLC recommendation)

TLC has based its recommendations on Government Aquatic Centre feasibility studies TLC has been commissioned to perform previously.

TLC Group Pty Ltd
Trading as: **Tropical Landscaping Cairns**
PO Box 856, Edge Hill, Qld 4870

Price Guarantee
We will attempt to beat any **5%**
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**Commercial and
 Domestic**
 House repairs/alterations
 Earthworks, Decks, Patios
 Pergolas, Paving, Signage
 Landscape design/installation

Equipment

The filtration system and ancillary equipment has been designed with the intention of ease of use whilst still complying with volumetric requirements. The pool has a capacity of approximately 437,000 litres. Standard water recirculation requirements for a commercial public pool complex should allow for complete volumetric turnover every 2.5 hours. To facilitate this, TLC has allowed for a series of 4 Maxim pumps and 4 Praga filter units. Viron Glass media to be used for filtration.

Half Olympic size pool recommendations.

PROJECT NAME:	Airlie Beach Swim School		
	Length M	Width M	Av. Depth M
Pool Dimensions -	25	12.5	1.4
Pool Volume -	437.5	M3	
Turn over rate --(Hrs)	2.5		
Area each Filter (M2)	2.01		
# of Filters	4		
Dia. each Filter (mm)	1600		
# of Pumps	4		
Flow rate each pump (M3/Hr)	50.3	838	lpm
Hydraulic Metres Head (M)	8		
Total flow rate (M3/hr)	201	3350	lpm
New turn-over rate (Hrs)	2.2		
Suction pipe Dia. (mm)	100	(Separate suction to each pump)	
Suction pipe Vel. (M/sec)	1.6		
		(All discharge pipes manifolded together)	
Discharge pipe Dia. (mm)	80		
Discharge pipe Vel. (M/sec)	2.7		
Flow for back wash (LPM)	1424		
# of Pumps for back wash	2	(Use 1 pump for 2 filters)	
# of filters for backwash	1	(Use one filter)	
Back-wash pipe Dia. (mm)	80	(Restricted)	
Back-wash pipe Vel. (M/sec)	4.6		
Wall inlets per Pump	8.4	(Nearest number over)	
Min. Plant room size (M2)	24 35		
Approx. Bal. Tank Vol. (m3)	35		

Equipment (Detailed)

Item	Qty
MAXIM PUMP 4.0 HP 3PH	4
PRAGA FILTER 1600-110 2.5BAR	4
5 VALVE BATT - 100MM UNASSEMBLED	4
VIRON GLASS MEDIA - VF25 (22.5KG) FINE MEDIA	286
VIRON GLASS MEDIA - VF8 (22.5KG) COARSE MEDIA	90
VIRON 550 NAT GAS HEATER	2
RC8 100/20ORP & PH WITH LCD	1
DELTA LED LIGHT 20M - 4 COLOUR RIM	4
DELTA LIGHT CONTROLLER 4 LIGHTS	1
60L HOLDING TANK - BLACK	1
60L HOLDING TANK - BLUE	1
PARALLEL GRATING TILE-295	375
PLASTIC CORNER 90°22X295	6
END PIECE KIT CORNERS-295	6
STARTING BLOCK 700MM POLISHED	10
FLOAT-LINE MODEL FRANCE 25M	4
FLOAT LINE TENSIONAR SS316	4
FLOAT-LINE S.S. AISI-316 CABLE Ø 4	100
CONCRETE CUP ANCHORING WITH A CROSS	8
ANCHOR KIT - POOL LADDER (PAIR)	4
LADDER S/S DELUXE STEP - 3	4
Fiberglass main drain 355x355	1
WALL RETURN FOR CONCRETE POOLS	8
100MM PN9 PRESSURE PIPE UPVC-WHITE*	60
ELBOW 90 D.4" (100MM)	20
TEE D.4" (100MM)	10
80MM PN9 PRESSURE PIPE UPVC-WHITE*	60
ELBOW 90 D.3" (80MM)	20
T (80MM)	20

In Addition:

TLC has allowed for construction of a equipment room, a 6m x 6m steel construction with twin roller doors to allow for ease of access and maintenance.

TLC recommends and has allowed for a 2m wide stencilled concrete surround “splash” area to the full perimeter of the pool.

TLC recommends and has allowed for a drainage grate system between the surround area and pool coping