

Pool Design Requirements 25m by 6 lanes.

AMATEUR SWIMMING ASSOCIATION

Pool Design Requirements 25m by 6 Lane

This information sheet briefly outlines the design requirements for a 25m by 6 lane pool to be used for general community swimming and which is also capable of providing for swimming competitions and training, synchronized swimming and water polo. Ideally a learner pool, which can be used for warm up and swim down and by persons and groups as well as for the teaching of swimming, should also be provided.

Main Pool

Length - 25m plus 0.03m minus 0.00m.

Width – 6 by 2m lanes with a preferred space of 0.5m (minimum 0.2m) outside the first and last lanes.

Depth – 1.0m to 2.0m. A moveable floor is an option which may be provided to give a deep water pool of 1.8m to 2m all over depth. (Should the pool be considered for Synchronised Swimming competitions a 12m section of the pool will require a minimum depth of 3m).

Deck level construction with water overflowing the two sides and with raised ends 0.3m above the water level. Finger-grip detail to be provided at water level in the raised ends. The edging tile between the side walls of the tank and the pool surround, over which the water flows, should be of a contrasting colour to the pool tank walls and the pool surround and provide a finger grip for swimmers.

Slip resistant surfacing on pool end walls extending 0.8m below the water level.

Recessed steps in the side walls at each end of the pool.

Lane markings of a dark contrasting colour (black is most commonly used) on the floor of the pool in the centre of each lane. The width of each lane line should be 0.2m plus or minus 0.05m and should end 2m from the end wall of the pool with a distinctive crossed line the same width as the lane line, and a length of 0.80m for lanes of a width of 2m, for lane widths greater than 2m, or to meet FINA Regulations 1m is required. Target lines should be placed on the end walls, in the centre of each lane of the same width as the lane lines. They should extend from the pool deck edge to the floor of the pool and should have a cross line 0.5m long placed 0.3m below the water surface, measured to the centre point of the crossed line.

Pool surrounds to be a minimum of 3m at the start end and 2m at the turning end and on both sides. If League events are to be held the main pool surrounds plus the surrounds of the learner pool should be able to accommodate up to 180 competitors and officials and consideration needs to be given to increasing the width of the pool surrounds and the provision of fixed (bench) or alternatively bleacher seating.

Gallery providing seating for a minimum of 150 spectators and 6 spaces for wheel chairs. The seating and wheel chair spaces should give a view of the whole area of the pool.

Water temperature – 27/28 degrees C

Lighting – 500 lux (in accordance with CIBSE Guidance) for competition and 300 lux for other activities. Up-lighting preferred to reduce reflection and glare on the water surface.

Equipment

6 lane swim timing system comprising timing computer, printer, start system with 6 speakers (provides a fairer start than a single speaker), 6 touch pads, wiring harness and 6 line alpha-numeric scoreboard. The timing computer and printer to be capable of linking to a results system and ideally to be housed in a separate suitably ventilated control room at the start/finish end of the pool at first floor level with direct access from the pool side. A storage trolley should be considered for the touch pads and it would be prudent to have an extra touchpad in case of damage.

6 by starting platforms (0.75m) for use where the water is more than 1.5m deep. If high level competitions are to be held consideration may be given to providing platforms fitted with an electro mechanical contact device which will provide a split second recording of the take off time. In pools where such platforms are not necessary one such block may be provided for training purposes.

Turning boards at both ends if raised ends are not provided.

7 by anti-wave lane lines with the floats extending 5.0m from each end of the pool being red. Additionally there is a need at 15 metres from each end of the pool for the floats to be of a distinctive colour from the surrounding floats.

The colour of the lane ropes should be as follows

- 4 blue ropes for lanes 1, 2, 5 and 6
- 3 yellow ropes for lanes 3 and 4

False start rope to be suspended across the pool not less than 1.2m above the water level from fixed standards placed 15m in front of the starting end. The rope should be secured to the standards by a quick release mechanism and should effectively cover all lanes when activated.

2 by backstroke turn indicators which should take the form of flagged ropes suspended across the pool at a minimum height of 1.8m above the water surface from fixed standards placed 5m from each end wall of the pool..

2 by Water Polo goals – depth of goals to be 0.75m providing 23.5m between goal lines.

Water Polo timing equipment, including possession clocks, linked into the 6 line scoreboard (appropriate software package added to timing computer).



Large sweep hand timing clock

White boards at each end of the pool

If Synchronised Swimming is to take place judging equipment and an underwater sound system.

Real time clock

Public address system.

Portable hoist, for use by swimmers with disabilities, with fixings in both the main pool and the learner pool.

Drinking water fountain.

Learner Pool

4 lane (8m) x 17m.

Deck level construction.

Recessed steps at each corner in the side walls.

Pool surrounds 2m in width in order to allow adequate circulation space at points of access from the from changing areas and for wheelchairs users. On sides where there is less movement of bathers a narrower width of 1.5m may be considered.

Moveable floor to provide a variable depth of water down to 1.8m.

Ideally it should be possible for the learner pool to be separated both visually and acoustically from the main pool to allow for use by people or organisations or activities which require quiet or privacy e.g. teaching of swimming, persons with disabilities and ethnic groups. The separation should be such that the pool hall area can be opened out to become contiguous with the main pool area at other times.

Water temperature 29/30 degrees C.

Lighting – 300 lux

Spectator accommodation for up to 30 persons and including a space for a wheelchair adjacent to the pool hall area.

Group, individual cubicles and disability changing areas with direct access to the learner pool which can be separated off from the main changing area if required.

Equipment

Swimming and teaching aids

Play equipment

Portable stairs or ramp to assist access to and egress from the pool for people with walking difficulties.

Drinking water fountain.

Real time clock.

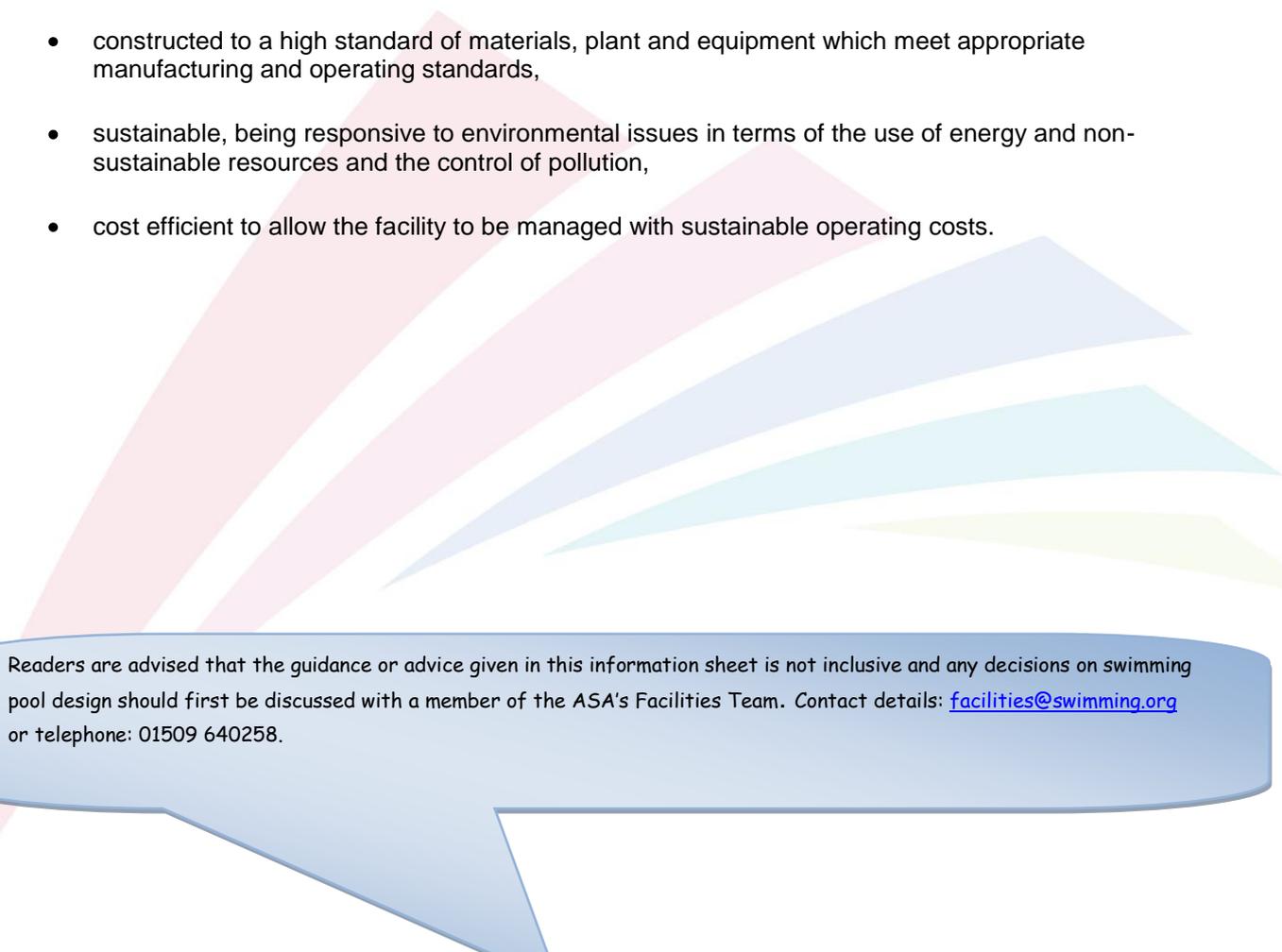
General

The above are the main requirements to meet the detailed needs of the ASA but in addition the design should ensure

- a high standard of water treatment with medium rate (24m/h) sand, pressure, air scoured filters, with the continuous dosing of a coagulant, good water circulation within the pools, appropriate turnover periods and chlorine supplemented by ozone or Ultra Violet for disinfection, is recommended. Good practice would dictate that each pool should have its own separate water treatment plant. However, there may be operational advantages if the main and teaching pools are linked,
- a good standard of ventilation with heat recovery, but no re-circulation of exhaust air, providing an air temperature of plus or minus 1 degree C of the water temperature and a relative humidity of 50 to 70% in the pool hall areas and a temperature of around 24 degrees C in the changing and shower and toilet areas,
- there is no glare or specular reflection in the pools from either natural or artificial light sources and no solar gain unless this is compensated for in the design and used as an energy conservation measure,
- if water polo is to be played, that the design is such as to prevent damage to the building fabric including glazing, plant, controls and equipment from the ball
- village and group changing with circulation routes which encourage the use of toilets and showers prior to entry into the pool areas adjacent to shallow water,
- the use of appropriate finishes; including slip resistant surfaces in wet areas which comply with the requirements as appropriate of groups A, B and C EN 13451-1 in all directions,
- provision of a First Aid room
- pool safety equipment in accordance with a risk assessment including reaching poles and throwing ropes, spine board, push button alarms and consideration should be given to computer aided pool surveillance equipment to supplement but not replace pool lifeguards,
- adequate storage areas – this may mean also providing areas for clubs which use the pool to store equipment e.g. swimming training aids, polo balls, sub aqua equipment etc,
- provision of a meeting room,
- provision of notice boards for clubs,

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- adequate safe parking for cars and coaches together with drop off and loading points close to the front of the building,
 - the building incorporates the requirements of the Disability Discrimination Act 1996 and it is in accordance with the Code of Practice BS8300: Design of Buildings and their Approaches to Meet the Needs of Disabled People and the Sports Council publication “Access For Disabled People” which can be downloaded from the Sport England website,

Indeed these should be part of a design providing a facility which is

- Intended to meet the swimming needs of the whole community,
 - constructed to a high standard of materials, plant and equipment which meet appropriate manufacturing and operating standards,
 - sustainable, being responsive to environmental issues in terms of the use of energy and non-sustainable resources and the control of pollution,
 - cost efficient to allow the facility to be managed with sustainable operating costs.
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Readers are advised that the guidance or advice given in this information sheet is not inclusive and any decisions on swimming pool design should first be discussed with a member of the ASA's Facilities Team. Contact details: facilities@swimming.org or telephone: 01509 640258.