

# Design Guidance

## Design Guidance for 50-metre swimming pools

1. Swim England Swimming Pool Design Requirements for a 50 metres by 6-lane community pool suitable for competition
2. Swim England Swimming Pool Design Requirements for a 50 metres by 8-lane community pool suitable for competition
3. Swim England Swimming Pool Design Requirements for a 50 metres by 10-lane community pool suitable for competition

## General Specifications

Pool Specifications	50m x 6-lane pool	50m x 8-lane pool	50m x 10-lane pool
Length – maximum	50.030m	50.030m	50.030m
Length - minimum	50.000m	50.000m	50.000m
Minimum Width	12.4m	16.4m	20.4m
Maximum width	15.4m	20.4m	25.4m
Minimum Depth – shallow end	1m	1m	1m
Minimum depth – deep end	1.8m	1.8m	2m
Minimum lane width	2m	2m	2m
Maximum Lane width - preferred	2.5m	2.5m	2.5m
LUX levels community use	300LUX	300LUX	300LUX
LUX levels competition	500LUX	500LUX	500-1000LUX
Pool deck minimum width - sides	2m	3m	5m
Pool deck minimum width – turn end	2m	3m	5m
Pool deck minimum width – start end	3m	4m	7m
Water circulation	Deck Level with 2 raised ends	Deck Level with 2 raised ends	Deck Level with 2 raised ends
Bulkhead	✓	✓	✓
Moveable floor	✓	✓	✓
Spectator seating	300/350	350/400	500/600
Water temperature	27/28°C	27/28°C	27/28°C
Turnover period	3 hours	3 hours	3 hours
Swimming Pool Water Purification	Ultra-Violet	Ultra-Violet	Ultra-Violet
Swimming Pool Water Disinfection	Chlorine	Chlorine	Chlorine
Pool Hall Humidity	50-70%	50-70%	50-70%

# 1. Swim England Swimming Pool Design Requirements for a 50 metres by 6-lane community pool to be used for elite training and general swimming activities.

**This information sheet briefly outlines the design requirements for a 50 metres by 6-lane pool to be used for elite training and general community swimming.**

Length - 50m plus 0.03m minus 0.00m.

The prime purpose of the pool is to provide a 50m long course facility but consideration should be given to the provision of a vertically moving bulkhead to provide a 25m pool and a 23.5m pool.

Width – 15m providing 6 by 2.5m lanes.

Deck level construction on the two longitudinal sides and with raised ends 0.3m above the water level. Finger-grip detail to be provided at water level in the raised ends and 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.

The pool should be 2.0m deep with a moveable floor in the 23.5m section of the pool to provide shallow water which can be used for teaching, exercise in water, recreational swimming etc.

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 0.25m plus or minus 0.05m and should end 2m from the end wall of the pool with a distinctive crossed line 0.80m long and of the same width as the lane line. Cross lines 0.5m long shall be placed at the 15 metre mark from each end of the pool. 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. When the laterally moving bulkhead is in position to provide the 25m pool there should be cross lines 0.80m long on the pool bottom 2m from the side of the bulkhead.

The lane markings should also incorporate cross markings in a different colour at the following distances from each end wall:

- 5m, 7.5m, 10m, 12.5m and 20m.

Pool surrounds to be a minimum of 4m at the start end, 3m at the turning end and no less than 2m on both sides. Fixed bench seating should be provided against the wall on one side of the pool for swimmers.

Consideration should be given to providing up to 100 bench seats for spectators on the other side of the pool and this should incorporate 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 at ends and 300 lux generally. 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 speakers, strobe light and provision to start at both ends, 6 touch panels wiring harness and a 6 line numeric scoreboard. The timing computer and printer ideally should be housed in a separate suitably ventilated room at the start/finish end of the pool with direct access from the pool side. A storage trolley should be considered for the touch panels and it would be prudent to have an extra touch panels in case of damage.

12 by starting platforms 0.75m above the water level. Ideally consideration should be given to providing at least 2 platforms fitted with an electro mechanical contact device which will provide a split second recording of the take-off time. These to be used for start and relay take over training purposes.

4 by 50m anti-wave lane ropes (150mm diameter) 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.

4 by 25m anti wave lane ropes (150mm diameter) 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.

4 by 23.5m anti wave lane ropes (100mm diameter) with the floats extending 5.0m from each end of the pool being red.

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.

CCTV tracking cameras providing synchronised filming in one of the outside lanes of views of a swimmer from the pool floor, the poolside and overhead. The camera trolley to be controlled from the pool surrounds and run in a track way built into the pool surround.

2 by practice water polo goals and goal-line fixings – depth of goals to be 0.75m min.

Water Polo timing equipment, including possession clocks and scoreboard (appropriate software package added to race timing computer).

2 by large sweep hand timing clocks.

White boards at each end of the pool.

Real time clock.

Public address system.

Portable hoist, for use by swimmers with disabilities, with fixings at both ends of the main pool.

Drinking water fountains.

Swimming and teaching aids.

## Land Conditioning Area

Ideally a land conditioning room or area should be provided with direct access to the pool surround. The room should be of a sufficient size (min 50 square metres) to provide a matted area for stretching and a fitted area with swim benches and other equipment. Wall bars and mirrors should be provided.

The room should be air conditioned and provide a temperature of 15 to 18 degrees C with 10 to 12 air changes per hour and there should be lighting to a level of 200 lux.

## General

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

- a high standard of water treatment with medium rate (24m/h) sand, pressure, air scoured filters, good water circulation within the pools, appropriate turnover periods and ozone or UV supplemented by chlorine for disinfection
- 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 area and temperature of around 24 degrees C in the changing and shower and toilet areas
- no glare or specular reflection in the pool 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
- village and group changing areas have circulation routes which encourage the use of toilets and showers prior to entry into the pool areas
- 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
- 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 Medical/First Aid room which will also be suitable for Dope Testing
- provision of office accommodation for coaching staff and including equipment
- 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/alarm equipment to supplement but not replace pool lifeguards
- provision of a meeting room
- provision of notice boards for clubs
- 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 1995 and 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.

## 2. Swim England Swimming Pool Design Requirements for a 50 metres by 8-lane community and competition pool

This information sheet briefly outlines the design requirements for a 50 metres by 8-lane swimming pool to be used for general community swimming and which is also capable of providing for swimming competition, swimming training, synchronised swimming and water polo.

A 20m learner pool (ideally 25m), which can be used for swim down and by persons and groups as well as for the teaching of swimming, should also be provided.

In an ideal scenario a land conditioning room adjacent to the pool hall.

### Main Pool

Length - 50m plus 0.03m minus 0.00m.

The prime purpose of the pool is to provide a 50m long course facility but consideration should be given to the provision of a laterally moving bulkhead and extending the length of the pool tank to 51.5m. This allows the pool to be split into 2 by 25m sections enhancing the flexibility of the programming of the pool and also its viability.

Width – Minimum 8 by 2m lanes with 0.5m outside the first and last lanes (17m); preferred 8 by 2.5m lanes with 0.5m outside the first and last lanes (21m).

Deck level construction on the two longitudinal sides and with raised ends 0.3m above the water level. Finger-grip detail to be provided at water level in the raised ends and 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.

Moveable floor(s) to provide a deep water pool of 2m all over depth. (Should the pool be considered for Synchronised Swimming a 12m section of the pool will require a minimum depth of 3m).

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 0.25m plus or minus 0.05m and should end 2m from the end wall of the pool with a distinctive crossed line 0.80m long and of the same width as the lane line. Cross lines 0.5m long shall be placed at the 15 metre mark from each end of the pool. 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. If the pool is designed to provide 2 by 25m pools by means of a laterally moving bulkhead there should be cross lines on the pool bottom 2m from either side of the bulkhead when dividing the pool into two.

Consideration should also be given to the lane markings incorporating cross markings in a different colour at the following distances from each end wall as an aid to training:

- 5m, 7.5m, 10m, 12.5m and 20m.

Pool surrounds to be a minimum of 4m at the start end and 3m at the turning end and on both sides. The main pool surrounds plus the surrounds of the learner pool should be able to accommodate 250 competitors and officials and fixed (bench) or alternatively bleacher seating should be provided.

Gallery providing seating for a minimum of 350/400 spectators and 6 spaces for wheel chairs. The seating and wheel chair spaces should give a view of the whole area of the pool.

Pool side land conditioning room.

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

8 lane swim timing system comprising timing computer, printer, start system with speakers, strobe light and provision to start at both ends, 8 touch pads, wiring harness and 8 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.

16 by starting platforms (0.75m high) if water depth is 1.5m or more. Ideally consideration should 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.

9 by 50m anti-wave lane ropes 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 ropes should be coloured as follows

- 2 green ropes for lanes 1 and 8
- 4 blue ropes for lanes 2, 3, 6 and 7
- 3 yellow ropes for lanes 4 and 5

18 by 25m anti wave lane ropes 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.

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 practice water polo goals – depth of goals to be 0.75m min.

Water polo pitch and fixings including goals and goal and side lines suitably coloured to outline the goal line and half way – white, 2m from the goal line red and 5m from the goal line yellow.

Water Polo timing equipment, including possession clocks, linked into the 8 line scoreboard (appropriate software package added to race timing computer).

Water polo referees walkway on each side of the pool.

If Synchronised Swimming is to take place judging equipment linked into the scoreboard and an underwater sound system.

2 by large sweep hand timing clock.

White boards at each end of the pool.

Real time clock.

Public address system.

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

Drinking water fountains.

## Learner Pool

4 lane (8m) x 20m.

Deck level construction.

Recessed steps at each corner in the side walls.

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 wheel chair 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

## Land Conditioning Area

Ideally a land conditioning room or area should be provided adjacent to the pool with direct access from the pool side.

The room should be of a sufficient size (min 50 square metres) to provide a matted area for stretching and a fitted area with swim benches and other equipment. Wall bars and mirrors should be provided.

The room should be air conditioned and provide a temperature of 15 to 18 degrees C with 10 to 12 air changes per hour.

There should be a good uniformity of lighting with an average of 300 lux.

## General

The above are the main requirements to meet the detailed needs of the Swim England 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 are operational advantages if the main and teaching pools can be linked if required
- 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 temperature of around 24 degrees C in the changing and shower and toilet areas

- 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 areas have 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
- 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 First Aid room which will also be suitable for Dope Testing
- 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/alarm equipment to supplement but not replace pool lifeguards
- provision of a meeting room
- provision of notice boards for clubs
- 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 1995 and 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.

### 3. Swim England Swimming Pool Design Requirements for a 50 metres by 10-lane pool(International Long Course Championship Pool)

This information sheet briefly outlines the design requirements for a 50 metres by 10-lane swimming pool to be used for general community swimming and which is also capable of providing for swimming competition, training, synchronised swimming and water polo.

A 20m learner pool (ideally 25m), which can be used for swim down and by persons and groups as well as for the teaching of swimming, should also be provided.

In an ideal scenario a land conditioning room adjacent to the pool hall should also be provided.

#### Main Pool

Length - 50m plus 0.03m minus 0.00m.

The prime purpose of the pool is to provide a 50 metres long course facility but consideration should be given to the provision of a laterally moving bulkhead and extending the length of the pool tank to 51.5m. This allows the pool to be split into 2 by 25m sections enhancing the flexibility of the programming of the pool and also its viability.

Width – 25m providing 10 by 2.5m lanes.

Deck level construction on the two longitudinal sides and with raised ends 0.3m above the water level. Finger-grip detail to be provided at water level in the raised ends and 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.

Moveable floor(s) to provide a deep water pool of 2m all over depth. (Should the pool be considered for Synchronised Swimming a 12m section of the pool will require a minimum depth of 3m).

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 0.25m plus or minus 0.05m and should end 2m from the end wall of the pool with a distinctive crossed line 1.00m long and of the same width as the lane line. Cross lines 0.5m long shall be placed at the 15 metre mark from each end of the pool. 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. If the pool is designed to provide 2 by 25m pools by means of a laterally moving bulkhead there should be cross lines on the pool bottom 2m from either side of the bulkhead when dividing the pool into two.

Consideration should also be given to the lane markings incorporating cross markings in a different colour at the following distances from each end wall as an aid to training:

- 5m, 7.5m, 10m, 12.5m and 20m.

Pool surrounds to be a minimum of 7m at the start end and 5m at the turning end and 5m on both sides. The main pool surrounds plus the surrounds of the learner pool should be able to accommodate 300 competitors and officials and fixed (bench) or alternatively bleacher seating should be provided

Gallery providing seating for a minimum of 500/600 spectators and 6 spaces for wheel chairs. The seating and wheel chair spaces should give a view of the whole area of the pool.

Pool side land conditioning room (see details later).

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

10 lane swim timing system comprising timing computer, printer, start system with speakers, strobe light and provision to start at both ends, 10 touch pads, wiring harness and 8 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 2 extra touch pads in case of damage.

20 x starting platforms (0.75m high) if water depth is 1.5m or more. Ideally consideration should be given to providing platforms fitted with an electro mechanical contact device which will provide a split second recording of the “take off” time and relay takeover. If this type of platform is not provided at least such platform should be provided for training purposes.

## Pool in 50m mode

9 by 50m anti-wave lane ropes 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 ropes should be coloured as follows

- 2 green ropes for lanes 1 and 8
- 4 blue ropes for lanes 2, 3, 6 and 7
- 3 yellow ropes for lanes 4 and 5

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.

## Pool Split into 2 by 25m pools

18 by 25m anti wave lane ropes 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 ropes should be coloured as follows

- 2 green ropes for lanes 1 and 8
- 4 blue ropes for lanes 2, 3, 6 and 7
- 3 yellow ropes for lanes 4 and 5

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 of each pool. 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 2 pools.

2 by practice water polo goals – depth of goals to be 0.75m min.

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.

Water polo pitch and fixings including goals and goal and side lines suitably coloured to outline the goal line and half way – white, 2m from the goal line red and 5m from the goal line yellow.

Water Polo timing equipment, including possession clocks, linked into the 8 line scoreboard (appropriate software package added to race timing computer).

Water polo referees walkway on each side of the pool.

If Synchronised Swimming is to take place judging equipment linked into the scoreboard and an underwater sound system.

2 by large sweep hand timing clock

White boards at each end of the pool

Real time clock

Public address system.

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

Drinking water fountains.

## Learner Pool and Swim Down Pool

4 lane (8m) x 20m.

Deck level construction.

Recessed steps at each corner in the side walls.

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 wheel chair 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

## Land Conditioning Area

Ideally a land conditioning room or area should be provided adjacent to the pool with direct access from the pool side.

The room should be of a sufficient size (min 50 square metres) to provide a matted area for stretching and a fitted area with swim benches and other equipment. Wall bars and mirrors should be provided.

The room should be air conditioned and provide a temperature of 15 to 18 degrees C with 10 to 12 air changes per hour.

There should be a good uniformity of lighting with an average of 300 lux.

## General

The above are the main requirements to meet the detailed needs of the Swim England 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 are operational advantages if the main and teaching pools can be linked if required

- 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 temperature of around 24 degrees C in the changing and shower and toilet areas
- 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
- village and group changing areas have 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
- 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 First Aid room which will also be suitable for Dope Testing
- 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/alarm equipment to supplement but not replace pool lifeguards
- provision of a meeting room
- provision of notice boards for clubs
- 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 1995 and 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.

## Information

The following are useful sources of information

- “Managing Health and Safety in Swimming Pools” – ISBN 0 7176 2686 5 or HSG 179
- “Swimming Pool Water – Treatment and Quality Standards” – ISBN 0 9517007 6 6
- “Swimming Pools” – ISBN 0 419 23590 6

The following may be out of publication but may be obtainable through reference libraries

- “Handbook of Sports and Recreational Building Design – Volume 3 Swimming Pools and Ice Rinks” – ISBN 0 7506 2256 3
- “Design and Planning of Swimming Pools” – ISBN 0 947685 04 9
- “Swimming Pools Design Guidance Note” – Sport England website.

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 Swim England’s Facilities Team. Contact details: [facilities@swimming.org](mailto:facilities@swimming.org) or telephone: **01509 618700**.