Outline Facility Brief and Site Options Appraisal

WINCHESTER LEISURE CENTRE







Furness Partnership Engineers



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1.0 Introduction

1.1 Aims

Winchester City Council (WCC) appointed Roberts Limbrick Ltd (RLL) in April 2014 to prepare a site options appraisal for a replacement Leisure Centre in Winchester. The main aims of the study are to:-

- Further develop the facility brief to determine a schedule of required accommodation
- Appraise the extensive survey information commissioned by WCC for the North Walls and Bar End sites
- · Develop building plans based on the facility brief
- Test how the building and associated external facilities can be accommodated on the two sites and a number of different locations on each site
- · Determine the capital costs for the different options for each site

1.2 Process and timescale

The work is to be carried out over an approximate 6 weeks period from early April 2014. The outcome of the study is intended to assist the Council in the process of determining the best location for the Leisure Centre.

1.3 Appointments

Roberts Limbrick Ltd are to lead the study and provide architectural input. They have employed the following sub-consultants to assist them to cover specialist areas:-

- Mace Ltd will advise on cost, programme, phasing and procurement
- Van Zyl & de Villiers will advise on building services
- Furness Partnership will advise on the structural and civil aspects

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2.1 OUTLINE FACILITY BRIEF

Introduction

An initial brief was provided by Winchester City Council (WCC) at the start of the study, together with copies of earlier feasibility studies. Following consultation with WCC Officers during the course of the study, the following facilities are proposed:-

Building entrance

The building is entered via a single, prominent, main entrance, approached via steps and ramps of suitable gradient for convenient access.

Lobby

A draught lobby will conserve heat loss and provide comfortable conditions internally for staff and customers. Automated doors will provide good accessibility to the facilities.

Foyer, café and toilets

The foyer will provide ample space for those entering the facilities to queue adjacent to the main reception, as well as providing a place to wait, served by 'Costa' style refreshment facilities and unisex accessible toilets, which can be used without entering the new facilities, for example for visitors using the park; these toilets could include a 'Changing Places facility. It will benefit from views to the outside and will also overlook the pool area, providing access to the main pool hall spectator facilities. An area will be set aside for sales of membership, etc. accessible to customers and reception staff.

Soft play

A squash court sized space $(c7m \times 10m)$ will be provided adjacent to the foyer. This will be a facility within which parents will be responsible for supervising their own children.

Reception and administration

The main reception will provide a point for staff to meet and greet visitors to the facilities and control access via turnstiles and gated entry. A 'fast track' members' entrance will provide accelerated entry via card access.

Circulation

Once through the turnstiles, the ground and first floor facilities can be accessed. At ground floor level, the circulation leads to the wet and dry changing facilities and, from these, to the swimming pools, squash courts, sports hall and hydrotherapy suite and controlled access to the external facilities. A prominent staircase and lift will provide access to the health and fitness facilities on the first floor.

Wet changing facilities

These will comprise of a combination of unisex changing village and segregated male / female changing to provide the end user with choice and to suit differing needs. The changing village will include cubicles of different sizes to suit individuals and families.

By using changeable signage, the male / female changing can also be used for groups, as well as for accessible changing in combination with the dedicated accessible changing facilities. Ample lockers will be provided to suit the needs of different swimming user groups.

Vanity areas will meet post-swim vanity requirements. Within the wet change area, storage will be provided for both ordinary and wet area wheelchairs. Toilets and pre- and post-swim showers will be provided adjacent to the entrance to the pool hall to encourage use of the facilities.

Main pool

A level deck, 25m x 21m, 10-lane pool with a depth ranging from 0.9m to 1.8m, will provide for a variety of swimming activities, including lane swimming, swimming lessons, family fun, etc.

Access to the pool will be via a stepped entry in one corner and via recessed integral ladders in the other three corners of the tank. Generous pool surrounds will provide for adequate circulation around the pool and for extra space at the access to the pool hall from the changing area and at access points to the pool. It will also provide additional space to accommodate extra spectators, competitors and officials for galas, but the pool will not provide for regional competition facilities.

Teaching pool

A level deck, 20m x 10m pool with a moveable floor will be provided within a separate enclosure for flexibility of use and will provide a range of water depths from 0m to 1.8m to suit a wide range of teaching and other water activities. Access to the pool tank will be via recessed integral ladders in each corner of the pool. A pool hoist will provide for additional accessible access. As well as providing suitable circulation around the pool, the surrounds will provide space for swimmers and spectators, e.g. parents watching swimming lessons.

50m pool option

A 50m x 17m 8-lane pool could provide an alternative to a separate 25m pool and teaching pool. This would incorporate a central 1.5m submersible boom 25m from one end, and a 23.5m x 17m moveable floor providing a range of depths from 0m to 1.8m. Although water polo can be played in a pool of this size, this is not anticipated to be a regular activity due to the availability of other swimming facilities within the region.

Pool spectating

A separate spectating area for a total of 150 people will be provided adjacent to the two pools, accessible from the foyer. Approx. 100 seats will be provided to main pool and 30 seats to the learner pool. This will provide an opportunity for parents to watch their children during swimming lessons. Alternatively, spectating to the teaching pool may be post turnstile. For the 50m pool option, an additional 20 seats will be provided. All seating will include provision for accessible spaces.

Pool storage

This will be provided for floats, teaching aids, inflatables and pool competition equipment, e.g. lane ropes and lifesaving / training equipment, to service both the main and teaching pools. Typically, the storage area provided should be 10% to 20% of the pool water area.

First aid

Most first aid treatment is anticipated to be undertaken at the location of the injury, but the first aid space will provide for storage of first aid and training equipment and supplies. It is located in an area to suit both wet and dry facilities and can be used for physiotherapy treatment. Items such as spinal boards will be stored adjacent to the poolside.

Cleaners' store wet areas

A store will be provided for storage of cleaning materials and equipment within the wet changing area.

Hydrotherapy suite

The circulation from reception will also provide access to the hydrotherapy suite. This will provide facilities and services for children with complex disabilities and specific needs, but the facilities will also be used by other age groups. A secure entrance will provide access to the overall facility and to a reception and waiting area. This area will also provide suitable storage for day-chairs and as a play space.

A small reception / office will provide an administration base for staff and a point to meet and greet service users. Changing facilities with showers, benching and lockers will be provided for staff next to this. Three large accessible changing rooms equipped with changing benches will provide assisted changing facilities and a dedicated WC will be provided next to these.

The hydrotherapy pool hall will contain a main hydrotherapy pool of an area of 22-24m² and 1.2m deep, for up to 4 people plus carers, and will

be provided with stepped entry and direct hoist access from the changing facilities. A moveable floor and raised level will be considered to provide optimum accessibility.

A second smaller hydrotherapy pool in a separate space (approx. water depth 0.9m to 1.2m) of 6m² to 12m² will provide an additional facility, allowing continuity of service provision when the first pool is out of use due to soiling.

Generous pool surrounds will provide suitable circulation and allow for any additional transfers from stretcher / shower trolley to fixed hoist. In addition, seating will be incorporated to form a poolside waiting area to allow accompanying family members / therapist to sit / observe. A poolside pre-swim shower area with fixed shower and handset will also be required.

Dry changing facilities

Access from reception leads to the dry changing facilities serving the sports hall, squash courts and external dry surfaced facilities comprising male, female, group and accessible changing and toilets. This will need to suit the following occupancy:-

Badminton: $8 \times 4p \times 2$ for change-over = 64p orBasketball: $4 \times 15p = 60p$

Sports hall

An 8-court badminton court sized hall with a fully sprung floor is proposed. Key activities to be accommodated include:-

- Badminton (8 courts)
- Basketball (2 courts, national standard)
- Gymnastics (basic)
- Handball
- Holiday club activities
- Karate
- Netball (2 courts) NB: Requirement for 36.6m length to accommodate run-offs.
- Volleyball
- Wheelchair basketball
- Wheelchair rugby

Other sports activities which can be accommodated include:-

- Badminton (8 club / community)
- Basketball (2 club / community, 1 national)
- Cricket practice (8 nets)
- Gymnastics (1 premier / club, 2 community)
- Handball (1 premier / club , 2 community)
- Indoor hockey (practice)
- Korfball (1 premier / club, 2 community)
- Netball (2 club standard)
- Sports hall athletics (2 practice / training)
- Volley ball (2 courts) (2 premier, 4 practice / training)

The size of the hall allows for regional matches and 1 no. set of retractable seating provides 500 seats for viewing competition events to one side of a centrally located temporary show court. Electronically operated drop-down basketball goals will meet day to day basketball requirements. Due to good provision of sports halls on local school sites, daytime school use of the facilities is not anticipated. Provision for football is not required as this will be provided for externally.

Sports hall storage

Suitable storage will be provided to store the necessary loose sports equipment, including large equipment such as badminton sets, netball goals, etc., together with small equipment such as balls, bats, etc.

Squash courts / studio

4 no. glass backed, single courts are provided. Moveable walls between the courts will allow for the full area to be used as a single space to suit the need for additional or future activity space.

Squash court / studio storage

Adequate storage will be needed to store furniture and equipment to allow the use of the squash courts as a multi-purpose studio space. The space will require acoustic treatment to the ceiling to provide suitable acoustics for any alternative uses.

Stairs and lift to first floor

Prominent stairs will provide convenient access to the first floor. These will be of sufficient width for two people to comfortably move ambulant accessibility equipment. Adjacent to the stairs will be a lift sized to comply with the requirements of the Building Regulations.

Health and fitness

These facilities will include 180 stations, including a range of cardiovascular and resistance equipment, as well as free weights and will include an area for warm-up, stretching, etc. The facility will be designed to meet the Inclusive Fitness Initiative requirements

Assessment office

A small office will be needed to assess health and fitness of new members.

Studios

2 pairs of multi-purpose studios are proposed, each pair to be divided by a moveable wall in each space to allow for a single, larger space. One pair will accommodate c30 people (approx. $10m \times 15m$), with the second pair (each being approx. $6.7m \times 15m$) accommodating 20 persons in each space. One of the larger spaces can be subdivided to create two 15 person spaces ($7.5m \times 10m$). Ideally, these spaces should be adjacent. A height of 3.5m will provide for most dance and martial arts requirements, e.g. judo. The space will not include provision for permanent martial arts equipment, e.g. for Kendo. Other activities will include use for children's activities and as a meeting room for clubs.

Studio storage

Each studio will have access to suitable storage for furniture and sports equipment to provide for a wide range of activities. This will include storage for mats, steps, Swiss balls, and martial arts mat sets, as well as stacking chairs and folding tables to allow use for non-sporting events and functions.

Treatment spaces

The suite will require a meet and greet / waiting area. 4 no. treatment rooms are required to provide for a range of different treatments. Within the rooms, space will be provided for end users to change and shower.

Staff facilities

An area for staff will be provided, including secure locker space and access to changing. Staff will have access to the refreshment facilities available in the café serving the building.

Duty Manager's office

An office for the Duty Manager will be provided, including an area for discussions purposes with other staff members.

Sports Club office space

This will meet the needs for flexible office space for various clubs based at the centre.

Meeting room

This will provide space for smaller community and sports clubs meetings and staff training.

Plant space

Incoming services

Space for the proposed gas, electricity, water and telecoms services and metering will be required. Refer to M&E brief.

Electrical services

Space for LV equipment and controls will be required.

Wet plant: heating and hot water

Main boilers, hot water generation and storage, and mechanical controls are anticipated to be located adjacent to the pool water treatment plant at ground floor level. Provision for cold water storage needs to be made.

Ventilation plant

Space will be provided for AHUs which will serve those areas needing to be mechanically ventilated, including the main pool hall, changing and toilets. Ideally, these will be located on the roof, subject to satisfactory screening and to suit planning requirements. The opportunity will be taken to naturally ventilate dry areas where feasible via windows or windcatchers, provided acoustic criteria can be met. Refer to M&E brief for details.

Renewables plant

It is anticipated that these may include photo-voltaics and / or solar hot water panels (located on the roof) and potentially CHP. Space will be required within the building for CHP and solar thermal storage.

Circulation and escape stairs

From the first floor, escape stairs will be needed for means of escape purposes from the extremities of the building. Horizontal circulation will link these to the main staircase and provide suitable access to internal facilities.

Pool water treatment plant

Space will be provided for pool water treatment equipment to serve the main, teaching and hydro-therapy pools and will include filters, pumps, chemical treatment, bulk storage and heat exchangers. Access will be required for replacement of equipment (including filters) and for delivery of chemicals.

Moveable floor / boom plant space

For the puposes of this study, a scissor lift type of construction has been assumed, which will not require additional plant space. However, depending on the selected manufacturer, additional space may be needed for plant and equipment associated with the moveable floor to the teaching pool or for any moveable floor and boom to the 50m pool option.

IT hub

This will provide space to house the main server rack.

External

Tennis courts

Up to 6 no. fenced, floodlit courts are required. Ideally, these should each be 36.58m x 18.29m and be provided with direct access from the dry changing facilities.

Artificial turf pitch (ATP)

A new artificial turf pitch (3G) is required. Ideally, a marked pitch size of 100m x 65m which can also be subdivided into thirds or quarters to provide facilities for smaller / younger age groups. Including run-offs, the overall facility size will be 106m x 71m and will be floodlit and fenced to a height of 6m. However, if a full sized pitch cannot be accommodated, a smaller pitch or pitches to suit junior play could be considered.

Outdoor changing for grass pitches

Changing for these pitches is assumed to be provided for separately, outside the scope of this project.

Parking

Parking for cars, motorcycles, minibuses and cycles is to be provided. This has been assessed with reference to HCC standards, although WCC have the option to determine their own requirements. At North Walls 31% of users walk or cycle to the current site (April 2014 Travel Survey - Ramboll UK) and additional parking is available nearby, so parking requirements will be much lower than at Bar End.

2.2 OPTIONAL FACILITIES

INDOOR BOWLS

Some of the site options require the re-provision of the existing indoor bowls facility, which could be run by the existing Bowls Club. Assuming the Bowls Club is integrated within the Leisure Centre, the facilities will comprise the following:-

- Reception / Green Steward / office
- Bowls hall: 6-lane rink with surrounds (including lockers)
- Kitchenette
- Bar and bar store
- Social area overlooking rink
- Male / female / accessible changing (45p x 2)
- Male / female / accessible toilets
- Storage for bowls wheelchairs
- Storage for bowls equipment
- General store

Further ancillary accommodation

If the centre is provided as a stand-alone building, the following additional facilities will be required:-

- Entrance lobby
- Meeting / committee room
- First aid facility
- Cleaner's store
- Plant space, incoming services / LV

Parking

The facilities will generate a requirement for additional parking (c1 no. space per 3 users).

GYMNASTICS

Dedicated, permanent facilities are required for a local gymnastics club. The size of the facility, level of development, number of users at any one time and requirements for specific facilities is to be determined in conjunction with the club, but can be expected to include tumble track, pits, floor area, rings, bars, beams, etc. The size could range from a minimum of 300m2 (20m x 15m) to 1,300m2 (approx. size of 8-court sports hall), with a height of 6.5m to 8m. Until the brief has been determined, a facility of 20m x 40m x 8m high, with an occupancy of c50 people, is assumed. In addition to the main facilities, the following accommodation will be needed:-

- Reception / foyer / office
- Changing: male / female / accessible / staff
- Toilets: male / female / accessible
 - female: 1 no. WC per 7 / 10 users, 1 no. wash hand basin per 15 users
 - male: 1 no. WC wash hand basin / urinal per 15 20 users
- Showers: 1 no. per 6 changing spaces
- Lockers: 2.5 x changing occupancy
- Vanity: 1 no. per 20 lockers (female), 1 no. per 30 lockers (male)
- Storage for sports equipment, e.g. trampolines
- Social facilities / vending, plus space for c50 spectators / waiting parents

Ancillary accommodation

If the facilities are provided as part of the overall sports centre, it is anticipated that additional accommodation will not be required. However, if the facilities are stand-alone, the following will be required:-

- Entrance lobby
- Meeting room
- Staff changing / rest room
- · First aid facilities

Parking

The facilities will generate a requirement for additional parking (c1 no. space per 3 users)

2.3 **PROPOSED PLANS, ELEVATIONS AND SECTIONS**

Square proportioned plan 25m pool (with partial parking under) a)

The shape and proportion of this plan arrangement will be the most efficient and economical building form as it has the least circulation and external surface area. This plan form is proposed for site option 1 and suits both single and two phase requirements.



Proposed ground floor plan





Proposed first floor plan

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b) Square proportioned plan 50m pool (with partial parking under)

For each site option, both 25m and 50m options have been considered. This plan arrangement illustrates how the square plan arrangement can be enlarged to accommodate a larger 50m pool in lieu of the 25m pool and 10m x 20m learner pool.



Ground floor plan 50m pool option

First floor plan 50m pool option

c) Square proportioned plan 25m pool, alternative layout

This layout illustrates how the square plan can be adapted where no ground floor parking is required and is used for options 4 and 5.





Proposed ground floor plan

Proposed first floor plan

d) L-shaped plan 25m pool

This plan option is proposed for site 1 and suits both single and two phase requirements.





40000

Proposed first floor plan

Proposed ground floor plan

e) Linear proportioned plan 25m pool



The linear form of this arrangement suits the tight site constraints associated with option 3.

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f) Indicative elevations and sections

The approach to the elevations and sections illustrates how the height and form of the building is related to the disposition and height requirements of the internal functions. For the purpose of this report, the square proportioned plan (see 2.3 a) has been used as the basis for the proposed elevations. These drawings are purely for determining height and mass, they do not represent final design solutions. The detailed design and use of materials will be determined in relation to the selected site option.

















Proposed sections

Proposed elevations

2.4 SCHEDULE OF AREAS - SPORTS CENTRE

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
Entrance foyer				
Entrance lobby		18.0		
Foyer		120.0		
Sales area		10.0		
Reception		18.0		
Office		28.0		
Cash office		10.0		
Café		25.0		c40 to 50 covers
Servery		12.0		
Accessible WC		3.3		Pre-turnstile to suit café / spectator seating
Changing Places WC	3m x 4m	12.0		Pre-turnstile to suit café / spectator seating
Spectator main pool		90.0		100p, including 6 no. accessible
Pool facilities				
10-lane pool	21m x 25m	525.0		Depth / moveable floor tbc, 2m lane widths
Pool surrounds main pool		325.0		Start end 4m, 3m to other end / sides
Studio / teaching pool	10m x 20m	200.0		With moveable floor (0m - 1.8m)
Pool surrounds teaching pool		136.0		2m
Spectator seating teaching pool		27.0		30p, including accessible
Pool store		72.0		Main / teaching pools, 10% to 20% of water area, i.e. 72m ² to 170m ²

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
Wet changing				Based on 725m ² water area (241p)
Unisex changing		400.0		Changing Village
Male toilets		13.0		
Female toilets		13.0		
Accessible change		4.4		
Accessible WC		3.3		
Open showers		5.0		
Enclosed showers		10.0		
Male change		70.0		Double up as group change (2 no.)
Male showers		10.8		
Female change		70.0		Double up as group change (2 no.)
Female showers		10.8		
First aid		9.0		
Wheelchair store		5.0		
Chemical store 1		5.0		
Chemical store 2		5.0		
Moveable floor plant room		10.0		If required, depending on manufacturer
Pool water treatment		145.0		10% to 30% water area, assume 20%
Dry sports facilities				
8-court sports hall	36.6m x 40m x 8.3m high	1,469.0		Extra long to suit requirement for netball
Sports hall seating	36.6m x 1.5m x 2m	109.8		Provision for 2 x 250 retractable seating stored in recess

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
Sports hall store		148.0		Normally 12.5% of sports hall area, but could reduce (base on 36m x 33m hall = 1,188m ²)
Squash courts (singles)	6.4m x 9.75m x 5.64m high	249.6		4 no. glass backed, moveable walls. No double courts or spectating required.
Dry changing				
Male change		24.0		Badminton use and change over = 1 x 32p
Female change		24.0		Badminton use and change over = 1 x 32p
Accessible change		4.4		
Male toilets		13.0		For sports / spectators
Female toilets		13.0		For sports / spectators
Accessible toilet		3.3		For sports / spectators
External sports equipment store		3.0		Pay and play equipment adjacent to reception
Controlled access to external areas		3.0		Occasional reception point
Soft play	7m x 10m	70.0		
Accessible toilet		3.3		

Health and fitness			
Studio 1: 30p (10 x 14)	10m x 15m x 3.5m high	140.0	Large - use 5m ² / pp as Affordable Sports Centre guidance in pairs with moveable wall between.
Studio 2: 30p (10 x 14)	10m x 15m x 3.5m high	140.0	Large (subdivisible)
Studio 3: 20p (9 x 12)	15m x 6.7m x 3.5m high	108.0	Medium
Studio 4: 20p (9 x 12)	15m x 6.7m x 3.5m high	108.0	Medium
Store 1		15.0	10% of floor area

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
Store 2		15.0		10% of floor area
Store 3		10.0		10% of floor area
Store 4		10.0		10% of floor area
180-station fitness suite		810.0		Use 4.5m ² / pp as Affordable Sports Centre guidance
Fitness assessment		3.0		
Fitness changing				
Male change		66.0		For 50 people
Male showers		22.0		For 50 people
Female change		66.0		For 50 people
Female showers		22.0		For 50 people
Accessible change / shower		4.4		
Male toilets		13.0		
Female toilets		13.0		
Accessible toilets		3.3		
Manager's office		5.0		
Staff room / change		12.0		Catering needs could be met by use of café
Hub room		2.0		
Cleaner's store: dry areas		2.0		
Renewables plant		30.0		e.g. CHP, thermal storage, PVs / solar hot water on roof
Wet plant		30.0		Heating, domestic hot water
AHU plant		0.0		Assumed on roof (consider planning aspects)
Hydrotherapy centre				Total floor area c200m ²
Entrance foyer / reception		25.0		
Office		4.0		

9.0

Accessible change 1

2.0 Assessment of requirements

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
Accessible change 2		9.0		
Accessible change 3		9.0		
Accessible WC		3.3		
Staff change / shower		4.0		
Hydrotherapy pool hall 1		70.0		
Hydrotherapy pool hall 2		50.0		
Equipment storage		10.0		
Hydrotherapy pool plant		10.0		
Total floor area		6,411.0		
Circulation		384.7		6% of overall area (5% to 10% typical)
Total net		6,795.7		
Allowance internal walls / finishes		543.7		8% of overall area
Gross floor area		7,339.3		
Enhanced option additional	area			
8-lane 50m pool	17m x 50m	125.0		In lieu of 25m pool and studio / teaching pool
Extra pool surround		29.0		
Spectator seating (additional)		18.0		Additional 20 seats
Changing area (additional)		0.0		It is assumed that a larger wet change will not be needed for the additional 125m ² water area (42p) as it assumes that a similar programme would be provided for both options.
Competitor seating		20.0		Additional 50 seats
Pool storage		13.0		
Plant		14.0		
Gross additional floor area		219.0		

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
External facilities				
Tennis courts	Each 36.58m x 18.29m	3,135.0		6 no. floodlit courts, rec. 94.47m x 36.58m, min. 90.22m x 34.75m (3,455 m ² max.)
ATP	106m x 71m	7,526.0		1 no. divisible into 3 or 4 small pitches (see FA guide for artificial grass pitches), floodlit, marked pitch 100 x 65
Car parking spaces				Numbers depend on site location, 5% of spaces to be accessible
Cycle parking				To suit HCC, WCC or BREEAM requirements
Motorcycle / minibus / coach parking				Motorcycle spaces 1 per 25 car spaces
Access for chemical deliveries				
Vehicular circulation				
Substation				

2.4 SCHEDULE OF AREAS - BOWLS CENTRE

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
Core facilities				
Reception / office / Green Steward		33.0		
Bowls hall		1,400.0		
Kitchenette		5.0		
Bar and bar store		12.0		
Social area overlooking rink		185.0		
Male changing		35.0		45 persons
Female changing		35.0		45 persons
Accessible changing		6.0		
Male toilets		21.0		
Female toilets		20.0		
Accessible toilets		3.0		
Storage for wheelchairs		8.0		
Storage for bowls equipment		4.0		
General store		4.0		
Total floor area		1,771.0		
Circulation		106.3		6% of overall area
Total net		1,877.3		
Allowance internal walls / finishes		150.2		8% of overall area
Gross floor area		2,027.4		
Further ancillary accommodat	ion **			
Entrance lobby		11.0		
Meeting / committee room		0.0		
Cleaner's store		3.0		

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS		
Plant space		144.0				
			1			
Total floor area		158.0				
Circulation		9.5		6% of overall area		
Total net		167.5				
Allowance internal walls / finishes		13.4		8% of overall area		
Gross floor area		180.9				
		(1			
External facilities						
Car parking spaces						
Cycle parking						
Motorcycle / minibus / coach parking						
Vehicular circulation						
** Only applicable to stand-alone facility.						

2.4 SCHEDULE OF AREAS - GYMNASTICS

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
Core facilities				Overall facility area c500m ² as stand-alone?
Reception / office / first aid		5.0		
Waiting area / foyer / social		30.0		
Gymnastics hall		450.0		
Male changing / showers		20.0		17 person change, plus 3 showers
Female changing / showers		20.0		17 person change, plus 3 showers
Buffer changing / showers		20.0		17 person change, plus 3 showers
Accessible changing / showers		5.0		1 person
Male toilets		10.0		Assume 1/3 male: 1 WC, 1 urinal, 1 whb
Female toilets		10.0		Assume 2/3 female: 3 WC, 2 whb
Accessible toilet		3.3		1 no.
Lockers		10.0		125 lockers
Vanity		3.0		6 spaces
Storage		5.0		
Vending		0.0		Within social / waiting area
Total floor area		591.3		
Circulation		35.5		6% of overall area
Total net		626.8		
Allowance internal walls / finishes		50.1		8% of overall area
Gross floor area		676.9		

ROOM / FACILITY	SIZE m	AREA m ²	ACHIEVED m ²	COMMENTS
Further ancillary accommod	lation **			
Entrance lobby		4.0		
Meeting room		10.0		
Staff changing (2p) / rest room		4.0		
Total floor area		18.0		
Circulation		1.1		6% of overall area
Total net		19.1		
Allowance internal walls / finishes		1.5		8% of overall area
Gross floor area		20.6		
External facilities				
Car parking spaces				
Cycle parking				
Motorcycle / minibus / coach parking				
Vehicular circulation				
** Only applicable to stand-ald	one facility.			

2.5 STRUCTURAL AND CIVILS

Foundations

Due to significant depths of alluvium overlying the chalk, piled foundations have been assumed to take the point loads from the structural frame and to support the ground floor slab and pool tank at the North Walls site.

Structural frame

A braced steel framed construction is proposed, although consideration will be given to the use of timber Glulam beams in the pool hall for maintenance and aesthetic reasons. In most areas, plain beams will be used, although for the longer spans Cellform beams or, alternatively, trusses will be used, e.g. sports hall and pool hall.

Ground floor slab

A suspended, reinforced concrete slab is assumed for the ground floor slab at North Walls, due to the ground conditions and the necessity to elevate the slab slightly. Due to flood levels, this may also give the opportunity to allow flood water below the slab, if the building footprint exceeds that of the existing building. This is normally acceptable to the EA. A ground bearing slab should be feasible at Bar End, subject to further investigations.

Upper floors

Pre-cast omnideck concrete composite floors or profiled metal deck and concrete acting compositely with the steel frame are assumed for speed of erection and to eliminate wastage. A powerfloat concrete finish will be used in most areas to eliminate screeds, apart from areas where floors need to be laid to falls.

Roof

Perforated decking or liner sheets and purlins are assumed for all roofs, except for plant areas where solid sheeting is proposed. Aluminium sheeting will be used in all high humidity areas and steel in dry areas. In pool areas, purlins would be hot formed, if used.

Pool tank

A reinforced water retaining concrete tank is proposed for longevity and will be designed in accordance with BS8007 for water retaining structures. The structure will need to resist both water from the pool itself and the upward pressure from ground water. The proposed retractable boom will involve deep excavation and dewatering will be needed for the construction.

Below ground drainage

At North Walls, the high water table will necessitate the drainage being constructed integral with the slab, although normal drainage conditions should be feasible at Bar End.

2.6 BUILDING SERVICES, INCLUDING SUSTAINABILITY - ARCHITECTURAL CONCEPT

Ventilation

Refer to M&E brief for details.

Opportunities for natural ventilation will be maximised and it has been assumed that the following spaces could be ventilated in this way:-

- Entrance foyer and café
- Sports hall
- Squash courts
- Multi-purpose studios (subject to satisfactory noise attenuation)
- Soft play
- Gymnastics and bowls centre options
- Some storage areas

Other spaces will need to be mechanically ventilated with heat recovery and, in the case of the pool areas, dehumidification. These spaces will include:-

- Pool area / wet areas generally
- Hydrotherapy
- Changing and toilets

Lighting

Many of the spaces within the building will benefit from natural lighting. Positioning transient spaces such as changing areas centrally within the building will allow the main activity spaces to be located around the perimeter. Double height spaces and those on the top floor can also benefit from roof lighting.

Locating the pool facilities on the north side of the building will allow the benefit of glare free daylighting. Where glazing faces other orientations, solar glare will be controlled by Brise Soleil or other suitable control methods.

Artificial lighting will be provided to suit sports and other requirements. Occasionally, spaces such as stores and some changing areas will be controlled by occupancy sensors. In major spaces, e.g. the sports hall, scene setting controls will ensure that lighting levels appropriate to the activity are maintained. Lighting efficiency has become increasingly important and new technologies such as LED will be used where these are able to provide appropriate, proven solutions, e.g. general circulation, changing and office areas. Other low energy lighting solutions will be used elsewhere.

Heating

Space heating can be expected to be provided via gas fuelled, centralised boilers, serving a combination of overhead radiant panels (sports hall and stores, squash courts, multi-purpose studios, gymnastics, indoor bowls, etc.). Changing and toilet areas will be heated by underfloor heating. Other mechanically ventilated areas will be heated via the ventilation system through plate heat exchangers.

Pool water heating

Heating to maintain the temperature of the pool water and to heat water to replace water lost through backwashing will be a major expense, and efficient technology opportunities will be explored to maximise efficiency (e.g. recovering heat from backwash water). Options will include:-

- Use of solar hot water
- · Heat pump recovery of water from the adjacent river
- Use of CHP
- · Recovery of heat from cooling to fitness suite

2.7 BUILDING SERVICES BRIEF

Concept design proposals

Orientation

The location and orientation of the building need to be optimised in terms of the disposition of the building and its facades in relation to the sun path and the immediate surroundings. This is to reduce running costs and maximise comfort. The relationship between orientation and façade design (including quantity of glazing and provision of effective sun shading) affect the amount of incident sunlight and consequent heat gain. It is therefore important that attention is paid to the quantity of glazing and effective shading of glazing. Software modelling should be used to advise the design team on the extent of glazing and the most appropriate means of controlling solar gain. The pool glazing should be north facing to minimise glare. Where this is not possible consideration is to be given to internal and external shading devices.

Provision for plant

Adequate provision is to be made in terms of plant rooms, routes and risers providing adequate access for operation and maintenance and flexibility for the future. All plant is to be concealed unless otherwise agreed with the architect and client. All plant is to be located in dedicated secure areas which can be locked and allow access by authorised personnel only. Provision is required for a substation and gas meter / governor housing with 24 hours unrestricted vehicular access.

Mechanical services

Above ground drainage

The systems will be designed in accordance with the following standards:-

- BS EN 12056, BS8000 Part 13, BS8301 and all other relevant British Standards
- IOP Plumbing Engineering Services Design Guide
- CIBSE Guide G

 Building Regulations Approved Document H Drainage and Waste Disposal

The above ground drainage installation comprises of soil vent pipes (SVP's), stub stacks, soil pipes and branch waste pipework connecting all sanitaryware to the below ground drainage. The system will generally be a single stack system with vented stacks. The SVP drain stack at the head of the drain will be vented to outside through the roof of the building.

Hot and cold water service

Hot and cold water services will be designed and installed in accordance with:-

- BS6700
- IOP Plumbing Engineering Services Design Guide
- CIBSE Guide G
- Water Regulations
- Building Regulations Approved Documents Parts J and L2A
- BSRIA Application Guide 4/94 Guide to Legionellosis.
- HSC L8 Legionnaires' disease control of legionella bacteria in water systems
- ACOP
- CIBSE TM13 Minimising the risk of Legionnaires Disease

The incoming mains cold water connection will terminate in the mains cold water (MCW) tank. The supply will be boosted to serve the respective sanitary fittings in the centre and hot water generation plant. Provision will be made for an electromagnetic type water conditioning system to serve all sanitary fittings. A secondary boosted cold water supply should be installed to the changing rooms and pool surrounds for the connection of wash down hoses.

Domestic hot water will be generated by plate heat exchangers and buffer vessels. TMV-3 protection will be provided to all hot water outlets except those in the kitchen or cleaner's sinks. Consideration will be given to a grey water or rainwater harvesting system to reduce mains water consumption.

Heating

The heating installation will be designed in accordance with:-

- CIBSE Guide B ٠
- Approved Document L2A and J
- BS EN 12828
- BS EN 13384-1
- BS EN 1856-1
- BS 5854 ٠
- BS 6644 ٠
- Clean Air Act Memorandum ٠

Low temperature hot water (LTHW) will be generated by a minimum of two gas fired boilers. The boilers will be of the low NOX emission type and of a suitable efficiency to comply with Building Regulations Part L2. Combustion products from the boilers and CHP will be discharged at roof level. The flues will be designed and constructed in accordance with relevant BS Standards and Clean Air Act.

LTHW should be distributed to the relevant plant using duty / stand-by pump arrangements. The LTHW hydraulic circuits will be zoned to take into consideration type of heat emitter and times of operation. Use will be made of variable speed technology to match pump speed to demand, and weather compensation to reduce the hydraulic circuit temperature and maximise efficiency.

Cooling

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The cooling installation will be designed in accordance with:-

- CIBSE Guide B • Approved Document L2A
- BS EN 14511-4
- BS EN 60335-2-40. Zone Data Sheets
- European F-Gas Regulation •
- BS EN 255-3 •
- BS EN 14511-1 ٠
- BS EN 14511-2 ٠
- BS EN 14511-3 •

 Approved Document L2A HVCA - DW144 • HVCA: Standard for Kitchen Ventilation Systems DW/171.

maximise efficiency.

CIBSE Guide B

Approved Document F

Ventilation

•

The development will employ a mixture of ventilation strategies to best fit the requirements of the end user. Whereas the majority of areas will be mechanically ventilated, consideration will be given to the use of natural ventilation of the following areas:-

Comfort cooling will be provided to the fitness suite and studios. If

comfort cooling will be provided to meetings rooms, offices, treatment rooms and soft play areas. Cooling to the IT room will be provided by

a dedicated direct expansion cooling system that will operate 24/7. The

cooling system will be direct expansion based and capable of operating at

ambient temperatures as low as -15°C and as high as 40°C. The systems

will operate on R410a refrigerant and employ variable speed technology to

The ventilation system will be designed in accordance with:-

acceptable levels of comfort cannot be achieved through ventilation alone,

- Sports hall •
- Circulation zone
- Squash courts
- Studios
- Soft play
- Fitness suite
- Gymnastics
- Bowls Centre

In areas where higher levels of temperature control are required during warmer months (such as fitness suite and studios) the natural ventilation will work in conjunction with comfort cooling systems in a mixed mode strategy. Where mechanical ventilation is employed heat will be recovered from the

extract air either through plate heat exchangers or heat wheels as may be appropriate. Attenuation will be fitted to all ventilation plant unable to satisfy the internal and ambient noise levels.

Building management system

The development will employ a Building Management System (BMS). The BMS installation will comply with:-

- BS7671 Requirements for Electrical Installations
- IEE Wiring Regulations Guidance Notes 1&2
- BS6701 Communications Installations
- Electricity at Work Act
- BSRIA guidance Documentation.
- CIBSE automatic controls application guide.

The function of the building management system (BMS) may be summarised, but not limited to the following:-

- Control
- Alarm monitoring
- User interface
- Energy monitoring

The BMS topography will be open protocol and will provide access to users via a front end computer.

Electrical services

General power

The main metering to the incoming service is to be check metered to Class 1. All other metering is to be Class 2. Metering to the building is to meet the requirements for metering as set out in Part L of the Building Regulations. All sub distribution boards are to be sub-metered. All meters to have Mbus communications suitable for recording on the BMS, with all information made available remotely. The main switch panels will be front access for all operations and have top and bottom cable entry to suit the physical location of incoming and outgoing cables and will be multi-cubicle type construction with a degree of protection to IP4X and provide a degree of separation to form 4 type 2. Surge protection will be provided to all switch panels that complies with BS EN 62305.

The electrical installation will be in accordance with BS 7671. All mains cabling will be XLPE LSOH armoured cables. Main electrical panel will have fully automatic power factor correction equipment to maintain the power factor between 0.98 lagging and 1. Containment will generally be incorporated within ceiling and wall voids. Exposed services will only be used in specific areas where designed and integrated as part of the area. The containment systems will consist of the following main components:-

- (i) Steel conduit and fittings
 - a. Type: Galvanised steel
 - b. Application: All plant room areas, public areas with exposed services and where mechanical protection is desirable.
 - c. Standard: BS EN 61386-21
- (ii) PVC conduit and fittings
 - a. Application: Ceiling voids and recessed in walls
 - b. Standard: BS EN 61386-21
 - c. Strength: Light duty
 - d. Size in accordance with BS 7671 (IEE regulations)
- (iii) Steel surface trunking
 - a. Type: Galvanised
 - b. Application: Ceiling voids, plant rooms and public areas with surface mounted services.
 - c. Type: Standard cable trunking and lighting trunking
 - d. Standard: BS 4678-1 & BS EN 50085
 - e. Size in accordance with BS 7671 (IEE regulations)

- (iv) PVC surface trunking
 - a. Application: Wall dado trunking in office areas, fitness suite, corrosive environment only
 - b. Standard: BS 4678-4
 - c. Type: 2 compartment skirting trunking and wall / dado trunking
 - d. Size in accordance with BS 7671 (IEE regulations)
- (v) Floor boxes
 - a. Application: Power in fitness suite will be terminated in floor boxes (one box per item of gym equipment in fitness suite).
 - b. Type 2: compartment raised floor or screed outlet boxes
 - c. Gym equipment Outlets: Two 13A switched socket and two coaxial data points
 - d. Standard: BS EN-60439-2, IEC 439-2 and BS 5733
- (vi) Perforated cable tray
 - a. Application: Support all cables throughout their length using cable tray, firmly fixed to building fabric
 - b. Sized to ensure cable spacing in accordance with BS 7671 for the design current of the cable
 - c. Standard: BS EN 61537
- (vii) Fire stopping of electrical containment systems
 - a. Application: to meet fire requirements
 - b. Locations: Where trunking or ducting pass through fire resisting floors, ceilings, cavity barriers, etc.
 - c. Type: Proprietary intumescent material

Power supplies will be provided for all equipment throughout the building; including but not limited to mechanical plant, pool plant, scoreboards, lifts, kitchen, drinking fountains, costume dryers, hand dryers, hair dryers, real time clocks, pool timing equipment, televisions, turnstiles, wind catchers, illuminated signage, pool covers, general sports and ancillary equipment, IT and specialist catering equipment. The pool areas will be provided with 230 volt IP56 outlets for pool side cleaning equipment and power supplies for disabled access hoists.

Lighting

Lighting criteria will be in accordance with the following where appropriate:-

- (i) ASA Guidelines
- (ii) Building Regulations Part L
- (iii) BS 8206 Part 2 Code of Practice for Daylighting
- (iv) BS EN 12193: 2007
- (v) LG4 CIBSE Lighting Guide Sports
- (vi) Sport England
- (vii) Illuminance levels in accordance with BS667
- (viii) Glare index will be calculated using the method according to CIBSE TM10 Code of Practice for Glare Indices
- (ix) External lighting to have daylight controls, comply with ILP Guidance for Reduction of Obtrusive Light 2011
- (x) External lighting design will be in compliance with the Dark Skies PG1light pollution guidance

Natural light (in the form of roof lights, glazing and sun pipes) should be introduced where possible to enhance internal areas and to reduce running costs. All lighting will be designed to coordinate and compliment natural light.

All lighting is to be recessed where possible and located for ease of access and maintenance. All luminaires in wet areas are to have a minimum rating of IP44. Special attention will be paid to corrosive environments; luminaires will be suitable for the warm corrosive environment in which they are installed. All luminaires should be independently fixed and supported to the building fabric.

The external lighting will comprise low energy (white light) and be suitably robust for the location. Light spillage and light pollution are to be limited as far as possible with the use of carefully selected reflectors in accordance with the ILE Guidance Notes for the Reduction of Obtrusive Light 2005.

Emergency lighting will be provided with a combination of maintained and non-maintained luminaires. An addressable emergency lighting system is to be incorporated within the design to provide central testing and monitoring of emergency luminaires. Illuminated emergency exit signage

to be maintained recessed wherever there is a ceiling. External emergency exit luminaires are to be integrated in normal external bulkhead lighting; dedicated non maintained bulkheads not acceptable.

Standards

Provide exit signs to BS 5499-1 and BS 5499-3 BS 4533-102 Section 102.22 BS 5266 BS EN 50171 ICEL 1003 CIBSE TM12

Main area lighting within the building is to be controlled to achieve the following:-

- Local switching is to be provided to all non-public areas
- · Last man out switch to ensure all lights in the building are off
- Movement sensors to switch lights in areas of intermittent use (stores, cupboards, toilets, disabled toilets, small change rooms, corridors)
- Automatic daylight control / switching in areas where there is natural light (BS 8206)
- Multi-purpose areas such as studio(s) are to have localised dimming control (capable of dimming to 1%) and scene select switch plate with pre-set lighting scenes / levels along with manual on / off and up / down dimming buttons for control of the general lighting.
- Sports halls and pool areas should have adjustable lighting levels to suit the type of use; for example different sports, for training, competition or regional type events.
- Lighting within the plant room areas to be via manual switching only and will be supplemented with an indicator outside the room to provide indication should the lighting have been left 'ON'.
- The external lighting to the building is to be controlled by means of photoelectric dusk / dawn sensors to bring the lighting on during darkness hours and off during daytime hours. This is to have an override 7-day time clock to switch the lighting off overnight at times it is not required.

Security systems

Security systems such as:-

- CCTV
- fire detection
- disabled refuge communication
- intruder alarms
- assistance alarms

have not been considered at this stage but will need to be considered during next design phases.

Specialist systems

Specialist systems such as:-

- Satellite and terrestrial TV
- Cardio entertainment
- Music and public address
- Induction loops
- Lightning protection and earthing systems

have not been considered at this stage but will need to be considered during next design phases.

Pool water treatment and filtration

The development will accommodate separate and individual water treatment systems to each of the pools. The pool water treatment installation will be designed and installed in accordance with the following standards:-

- Pool Water Treatment Advisory Group (PWTAG) publication 'Swimming pool water treatment and quality standards', 1999
- BS EN 13451
- BS EN 15288-1:2008 Swimming Pools Part 1: Safety requirements for Design

- PAS39 Management of Public Swimming Pools Water treatment systems, water treatment plant and heating and ventilation systems: Code of Practice, 2003
- The Health and Safety Commission and Sports England publication 'Managing Health and Safety in Swimming Pools' 2003

The pool water treatment systems will provide water quality in accordance with PWTAG guidelines subject to efficient operator management procedures and regular pool hygiene maintenance. The pool plant provided will deliver water quality which will be clear, attractive, free of odour and colour, and will be safe under the peak bather load. All pools will be designed with high volume surface displacement level-deck transfer channels returning water to large capacity displacement balance tanks for return to treatment plant.

The primary form of disinfection will be medium pressure UV. Secondary disinfection will be provided by hypochlorite, with hydrochloric acid providing pH correction. Control systems will be installed to automatically maintain free chlorine residuals and pH levels. All filtration pump motors will be suitable for and provided with dedicated variable speed control.

The pools will be heated via plate heat exchangers with heating provided by the centralised boiler plant and pool temperatures maintained by the BMS. A movable floor installation will be provided in the learner pool and possibly to the 50m pool option. The design and installation will comply fully with European and British Standards for swimming pool moveable floors and engineered to provide systems which are safe in operation and easy to operate.

Proposed incoming services

Gas

North Walls site

Subject to phasing and confirmation of existing capacity it may be possible to re-use the existing gas supply. If required the gas supply will be upgraded to serve the requirements of the development.

The on-site gas infrastructure would have to be altered to accommodate the new development, but other than that there seems to be no further requirements for diversion works.

Bar End site

Provision would have to be made for a new gas supply to meet the requirements of the new development. The on-site gas infrastructure would have to be altered to accommodate the new development, but other than that there seems to be no further requirements for diversion works.

Water

North Walls site

Subject to phasing and confirmation of existing capacity it may be possible to re-use the existing water supply. If required the water supply will be upgraded to serve the requirements of the development. The record drawings provided does not show the location of any existing water infrastructure. As such it is not possible to comment on the requirement for diversions.

Bar End site

Provision would have to be made for a new water supply to meet the requirements of the new development. The record drawings provided does not show the location of any existing water infrastructure. As such it is not possible to comment on the requirement for diversions.

Electricity

North Walls site

Subject to phasing and confirmation of existing capacity it may be possible to re-use the existing HV supply. If required the electricity supply will be upgraded to serve the requirements of the development. It is likely the existing on site substation will have to be removed to suit the new proposed plan layouts. The new location will require 24hour vehicular access.

Bar End site

Provision would have to be made for a new electricity supply to meet the requirements of the new development.

Sustainability

Sustainability embodies many aspects of leisure centres. Some specific elements which the building will be looking to incorporate are as follows:-

- Building orientation to maximize thermal gain where needed
- Enhance the thermal envelope, particularly the pool and pool hall
- · Balance between daylighting and thermal gain
- Optimum building fabric parameters in terms of cost / U value
- High efficiency lighting
- Simple and effective lighting controls coordinated with daylighting
- Building and Energy Management Systems suitable for leisure
- Day lighting with consideration of glare
- Power Factor Correction
- · Variable speed drives and controlling them for optimisation
- · Energy efficient heat recuperation from extract air
- · Integrating cost effective pool covers
- Automatically incorporating free cooling
- · Cost effective grey water harvesting from pool water
- · Optimising pool water treatment to suit bather demand
- · Optimising pool turnover to meet bather demand
- Natural ventilation where appropriate
- Insulation in relation to building services

During the next stage of development a detailed energy strategy feasibility study should be undertaken to identify the most suitable form or low and zero carbon technologies. The feasibility study should consider planning requirements, Part L, capital cost, energy cost, maintenance cost and carbon reduction implications of each technology. The low and zero carbon (LZC) technologies which should be considered as a minimum include:-

- Wind turbines
- Photovoltaic (PV) power generation
- Biomass heating
- Solar heating
- Heat pumps
- Combined heat and power (CHP)

Any planning and Part L requirements will need to be considered during this study. Wet leisure facilities are ideally suited to the use of CHP due to its year round demand for heating, and CHP will be a strong contender for the primary means of carbon reduction. Even so, there is the potential to supplement CHP with other technologies to further reduce carbon

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3.1 NORTH WALLS - SITE CONTEXT AND CONSTRAINTS

Introduction

The North Walls site is the location of the existing River Park Leisure Centre. It is a popular, centrally located and accessible site, though tightly constrained by existing site features. A development on this site would ideally need to maintain the provision of sport and leisure services delivered through the existing Leisure Centre. The following is a summary of the constraints which will influence development on this site.

a) Land ownership and restrictions

The whole site is owned by Winchester City Council. The existing Indoor Bowls Centre is subject to a long lease (a further 73 years) without a break clause.

b) Topography

The site is generally flat and low lying. The low point on the site (36.7m AOD) is on the south / south east side, rising slightly to the north. Around the building the level is 37.3m AOD. The tennis courts (37.0m AOD) and adjacent cricket pitch appear to have been raised at some point and are approx. 0.5m to 1.2m higher than the adjacent land surrounding the existing Leisure Centre.

c) Existing building

The existing Leisure Centre was mainly built in the 1970's and is propoosed to be demolished and replaced by a new Leisure Centre. Copies of existing asbestos surveys and further intrusive asbestos surveys will be needed to ascertain the extent of asbestos present in order to allow safe removal.

d) Utilities

All main utilities are present on the site and further investigation will be needed to determine suitability to serve the proposed development. Where possible, the proposed buildings should be located to avoid conflict with existing services, but where it is not feasible to avoid these, the cost of diversion will need to be included. Scanning of the site will also be needed in order to establish their exact location, although not all services can be traced by this method. Of particular note is the location of the foul sewer between the Leisure Centre and the indoor bowls centre (size unknown) and multiple services to the south of the existing Leisure Centre, diversion of which (if needed) may be costly.

e) Ecology

An outline ecological appraisal has been carried out by Ecological Planning and Research Ltd (November 2013) and key aspects include:-

- The site is adjacent to the Winnalls Moors Nature Reserve (to the south east)
- The River Itchen is designated as a Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC)
- The river supports nationally rare invertebrates, mammals (including water voles), breeding birds, fish, damselflies, and other wildlife
- The river is vulnerable to siltation and pollution
- The development has the potential to contaminate the tributary streams (and, as a consequence, affect the SSSI)
- Recommend 10m buffer strip between watercourses and development and any playing fields
- Minimum 5m to ground works from watercourse is statutory requirement
- Only the eastern side of River Itchen provides good habitat for mammals
- Water voles commonly recorded
- · Otters not likely to use watercourses on site
- Potential for bats and nesting birds
- Development must enhance biodiversity; offering a buffer zone to watercourses could provide this, including re-profiling of banks
- Site unlikely to be constrained by ecology
- Further species specific surveys needed, e.g. bats and possibly water voles and otters
- · Minimise impact of lighting for bats



Existing site constraints

3.0 Site 1: North Walls



Flood zone



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f) Arboriculture

There are extensive trees on the site and, although it is understood that these are not protected by TPOs, many of these are considered to provide good screening from adjacent areas, provide a valuable landscape amenity and to provide habitat for protected wildlife. It is expected that most trees will be retained, where possible. An arboricultural survey will be needed to establish condition, suitability for retention and extent of root zones.

g) Landscape

The site is not highly visible from the outside, and the building will sit in an attractive green landscape context. On the Leisure Centre site, the building is well screened by existing trees, but a tennis court location will be much more exposed and any external lighting and flood lighting to external sports facilities will need to be carefully controlled in order to minimise the impact at night. A visual landscape assessment is anticipated to be required.

h) Ground conditions

The site is understood to be chalk overlain with some alluvian materials, e.g. peat, silts, gravels, etc. The ground is naturally wet due to the high water table (less than 1m below the surface). Intrusive investigations will be needed to inform the design in terms of loadbearing capacity, presence of ground gases, contamination and percolation. Due to the presence of organic matter, there is a possibility of ground gases and investigation may be needed as part of the overall ground investigations.

i) Flood risk and drainage

A flood risk design report has been prepared by Ramboll (November 2013) and key aspects include:-

• The existing Leisure Centre lies mostly in flood zone 2 (medium probability), although some pitches are within zone 3 (high probability)

- The tennis courts and playing fields are located in flood zone 1 (low probability)
- The leisure use is classified as less vulnerable
- There is a history of some flooding (combination of high river flow rates and high ground water conditions)
- Topographical survey has been completed; flooding up to 0.2m deep is expected on a regular 1 in 25 year basis
- The tennis courts and playing field site are higher and are less prone to flooding (see topography section)
- Site levels cannot be raised; floodplain storage to be maintained
- Proposed floor plan of new building must not exceed existing as this would reduce the floodplain storage
- Demolition of existing building and replacement with open space would provide benefit to flood risk downstream
- · Culverting watercourses advised against, bridges are preferred
- Surface water and sewer drainage surcharge recorded when area has flooded on existing Leisure Centre site
- Floor levels of proposed facility to take into account potential flooding and access to / from car park

<u>Drainage</u>

No information is currently available regarding the invert levels and the capacity of any existing below ground drainage systems, or location of any surface water drainage. Investigations will be required to identify these and will include CCTV surveys of the existing.

j) Heritage and archaeology

A Cultural Heritage Assessment has been carried out (Ramboll report dated 27 January 2014). Key findings are:-

- There are no designated heritage assets within the site
- There are 3 Scheduled Monuments and 20 listed buildings adjacent to the site
- The site is adjacent to the Hyde (northern suburb) section of the Winchester Conservation Area
- However, there are no potential views from or to the site

- · There has been a community excavation of Hyde Abbey Church
- Due to the low lying and boggy nature of the site, there is no early archaeological evidence but there is high potential for below ground archaeology in relation to paleo-environmental remains and medieval / post-medieval features
- Part of the Hyde Abbey complex overlaps the site, but not on an area being considered for change
- The watercourses are related to the 18th century water meadow system
- Parts of the site are raised (0.5m to 1.0m) in relation to the floodplain (Winnall Moors)

Mitigation for below ground impact of construction will be needed.

There may be visual impact in relation to the Hyde Abbey gateway and Hyde Abbey garden.

k) Acoustics

The existing site is developed and there will be noise associated with use of the existing car park, plant noise from the building and activity noise from internal and external sports facilities. Any increase in intensity of the use of the site has the potential to increase noise disturbance and these aspects will therefore need to be considered early on in order to minimise their impact on the surrounding environment. A background noise survey will be needed for the site to establish current noise levels and the location of receptors.

I) Transport

A transport assessment has been undertaken by Ramboll (November 2013) and key aspects include:-

- Additional 86 no. car parking spaces are needed (total of 258 no., including 172 no. existing spaces)
- Extra overflow spaces are available at St. Peter's car park
- Good public pedestrian and cycle access from adjacent area

A further assessment has been provided by WCC, indicating a maximum of 281 no. spaces are needed (based on 50m pool) or 256 no. spaces (based on 25m, plus 20m x 10m learner pool). Hampshire County Council standards are applied, but these are no longer relevant and WCC are to determine requirements. No WCC standards are yet available.

Provision for non-Leisure Centre users will be in addition as neither sets of calculations take into account indoor or outdoor bowls or other park users, e.g. general recreation, skatepark, play area or grass pitches.

m) Planning

Consultation took place with WCC Planners on 2 May 2014 regarding the initial sketch site layouts contained in Appendix A. The following is the advice received from the Planners subsequent to that meeting.

Relevant Planning Policy: Advice Note

Proposals for the redevelopment of the River Park Leisure Centre have been presented to WCC Planning to establish the planning policy position. The options presented relate to two sites within the Winchester District area. For each site there are several options to be considered and the planning position in relation to all options is set out below.

Over-arching policy context

Spatial strategy

In terms of the spatial strategy for Winchester Town as set out in the Local Plan Part 1 Joint Core Strategy (LPP1), it is recognised through the Development Strategy and Principles policy DS1 that there is a presumption in favour of sustainable development as outlined in the National Planning Policy Framework. A series of guiding principles are contained within policy DS1. Of relevance to the proposals is its reference to:-

- · Integrating development of homes, jobs, services and facilities
- Applying a town centres approach to retail, leisure or other development proposals that are high attracters of people
- Achieving high standards of design and sensitivity to character, setting and cultural heritage
- Contributing to individual and community wellbeing, health and safety and social inclusivity
- Making the use of public transport, walking and cycling easy, to reduce non-essential car use

In terms of a Development Strategy for Winchester Town policy WT1 of the LPP1 is relevant to the proposals. Of direct relevance to the proposals policy WT1 requires:-

• The promotion of the town centre as the preferred location for new development that attracts high visitor numbers such as retail, commercial and offices, leisure, culture and tourism. Proposals for new floor space of 1,000m² or more outside the defined town centre will need to demonstrate that it would not have a harmful impact on the town centre.

Recreational facilities

Policy CP7 of the LPP1 relates to open space, sport and recreation uses and would apply to the current proposals. Policy CP7 positively encourages improvements to the open space network and in built recreation facilities within the District, to achieve the type of provision, space required and levels of accessibility set out in the Council's most up to date open space and built facilities standards. The policy indicates that this would be achieved by new and improved provision, or by improving public access for all to existing facilities and educational provision

This site relates to the existing River Park Leisure Centre site located to the north of North Walls and to the east of the Hyde residential area. The site lies outside of the Winchester City Conservation Area boundary and outside of the built up settlement boundary for Winchester, but with good pedestrian and cycle links to the town centre and surrounding residential areas . The site lies with flood zone 3 associated with the water meadows of the River Itchen. The existing complex is sited in a location that sits fairly comfortably in relation to its surroundings and, through existing buildings and adjacent trees and vegetation, the site is well contained and provides good opportunities for redevelopment without having a significant visual impact from wider public views, subject to careful and sensitive design and siting. Several development / location options were proposed for the redevelopment of the existing leisure centre within the existing site, including replacing the building on its existing footprint, and also building the new leisure centre on the site of the existing tennis courts. Either

• High quality design: DP3 of the WDLP and CP13 of the LPP1

option would be subject to similar planning constraints, including:-

- Respecting the heritage and landscape character of the surrounding area: CP20 of the LPP1
- Flood risk assessment: CP17 of the LPP1
- Replacement and enhancement of existing recreational facilities: CP7 of the LPP1
- Sustainability factors: CP11 of the LPP1
- Hampshire Car Parking standards

Refer also to Savills' 'Leisure Centre Planning Study Winchester, dated July 2013'.

3.2 DESIGN RESPONSE

Introduction

Retaining a Sports Centre in the existing location would locate the facilities close to the existing residential community, and would require solutions to be developed taking into account the tight site constrains and the potential loss of some facilities during the construction period, depending on the particular option.

a) Land ownership and restrictions

All schemes are located within the curtilage of land owned by WCC. It is noted that option 2 is reliant on the relocation or replacement of the existing indoor bowls facility.

b) Topography

The mainly flat site and the need to avoid changing levels have meant that the location of the layout options have not been determined by the existing topography.

c) Existing building

The existing Leisure Centre and possibly the indoor bowls centre buildings will be demolished in connection with the development. Copies of existing asbestos surveys and further intrusive asbestos surveys of the buildings will be needed in order to ascertain the presence of asbestos to allow for safe removal. The possibility of retaining material from the demolished buildings on site and used for hard standings, etc. will be considered to limit the export of materials from site.

d) Utilities

The existing utilities are assumed to be sufficient to serve the new facilities. Although there will be some enlargement of the facilities, greater efficiency of plant and energy efficiency should compensate for

this enlangement. This assumption will need to be tested as the project develops. However, the existing sub-station will need to be relocated to a higher level. Also, the existing foul sewer and some below ground services will need to be diverted or extended, depending on the particular option.

e) Ecology

The proposals will be developed to minimise the impact on adjacent ecology. A buffer zone of min. 5m and ideally 10m will be established between the water courses and any buildings or excavations to avoid any potential contamination. The riverbank will be enhanced with appropriate landscaping, using native species and the effect of external lighting on potential bats and use of permeable paving will avoid potential contaminants entering adjacent water courses.

f) Arboriculture

Trees determined to be worthy of retention (including any with TPOs) will be retained as part of the development. The impact of construction on root protection zones will be minimised through design. Additional trees will be planted to replace lost ones to enhance the development and screen areas of parking.

g) Landscape

The building will be developed to minimise the impact on the landscape. Dark, recessive materials will help the building to merge into the landscape. The use of a green roof above the pool will provide an ecological and visual connection between the building and the surrounding natural landscape.

h) Ground conditions

The boggy site conditions, flooding issues and poor loadbearing capacity will influence the design of the sub-structures, e.g. requirement for piling and the elevated ground floor slab levels. See next section for details.

i) Flood risk and drainage

Design for flood resilience

It will not be possible to change the level of the site surroundings and it is assumed that some loss of parking will occur in the event of flooding. However, it is expected that some parking will still be available and, due to the central location within the town, access for pedestrians and cyclists could still be maintained. Consideration will be given to access and emergency egress routes from the parking areas and adjacent surroundings.

Although access could be maintained in the short term, prolonged flooding would be likely to affect drainage disposal, which in turn would impact on the ability to dispose of backwash water and foul drainage and could therefore result in the temporary closure of the facilities in the event of flooding. However, due to the non-vulnerable nature of the facilities and the infrequent likelihood of flooding, such temporary closure is likely to be deemed acceptable and no worse than the existing situation. Receipt of early flood warning and consideration of escape routes will ensure that there is no impact on the safety of facility users.

The internal facilities will be protected by raising the level of the building above the level of potential flood. This is currently assumed to be c1m above existing ground levels to take into account known flood levels and allowance for potential climate change and further advice will be needed regarding this. Even if the building is located on the slightly higher ground forming the tennis courts, similar considerations will apply. Consideration will be needed in relation to the necessary ramps and steps to provide convenient access for all.

The construction below ground floor level, e.g. pool tanks, is assumed to be in waterproof construction, e.g. Kaltite, to protect the building from the effects of the high water table and / or flood water and consideration will be given to a possible requirement to prevent heave, e.g. inclusion of Cordec beneath the slab. It is assumed that piling will be needed for columns, slabs and tanks to support both building loads and to resist upward forces from water pressure. Drainage serving the building will need to be fitted with valves to protect the building from backward flows from flood water. It is likely that this will be monolithic with the floor structure within the building. As replacement of pool water treatment circulation pipework would be difficult beneath this slab, consideration will be given to setting this within recesses within the pool tank to allow potential replacement, if needed, or possibly the inclusion of a pool undercroft.

Any replacement sub-station would be protected by locating this above the level of potential floods.

Drainage strategy

As there is an existing Leisure Centre on the site, it is assumed that the existing surface water and foul drainage systems will be sufficient to serve the development, although some diversions may be required. However, further enquiries will be needed to ascertain this in relation to the defined requirements for this project. It is likely that storage will be required for backwash facilities for the pool to enable the rate of backwash (which may be different from the existing) to be matched with the capacity of the existing foul drainage. Similar considerations may apply to the provision of attenuation to storm water to provide betterment.

Surface water drainage

It is assumed that the rate of run-off and disposal of surface water drainage from the buildings and site will need to be maintained at existing levels or possibly improved. The size of the new building and the extent of hard surfacing will not exceed existing areas and there may be scope for improvement through use of attenuation and greater use of permeable surfacing.

However, due to the high ground water levels and poor draining ground, it is assumed that there is little scope for disposal through infiltration and that disposal would utilise the existing drainage network. Alternatively, it may be possible to dispose of surface water in the adjacent water courses; using permeable surfacing will enable pollutants to be removed

via the filtering effect of the sub-base or, alternatively, petrol interceptors may be needed for any newly formed parking areas.

The above proposals can be finalised once the site investigations are available and following consultation with the drainage authority.

j) Heritage and archaeology

The site is relatively well screened from the surrounding area (the existing Leisure Centre site in particular). However, the adjacency to the Conservation Area and the landscape context will require a sensitive design response. The design, form and materials will need to be carefully considered to allow the building to sit well in its context and it can be expected that good quality materials will be part of the solution. The adjacency to the former Hyde Abbey Church will need particular consideration. The design of the new building should enhance the existing site compared to the existing Leisure Centre and therefore meet any requirement for betterment.

The construction of the building will have some impact on potential below ground archaeology. Pre-construction site investigations will be combined with archaeological investigation and these may help mitigate the effect of the construction. However, it is noted that the ground beneath the existing Leisure Centre has been previously developed and is also subject to a WWII bomb. A piled solution for foundations will minimise the impact of the new building on underlying archaeology.

k) Acoustics

Because the facilities will replace similar existing facilities, the effect of the surrounding environment is likely to remain largely unchanged as a similar approach to the existing site arrangement will be followed, i.e. the siting of the building and parking will not be any closer to existing residences. The main plant serving the building will be located on the south east side of the site, away from the residential properties to the west. Although the extent of parking will increase proportionally, the additional area will be located further away from existing residential properties and should therefore not be a nuisance. Ventilation plant will be attenuated to achieve suitably unobtrusive levels in relation to background noise levels and careful consideration of pool AHU plant will be needed as this will, from necessity, run 24 / 7. Use of natural ventilation will be balanced with containment of indoor activity noise, with attenuation provided as necessary. Internal reverberation levels will be controlled to achieve good speech intelligibility by limiting reflected sound. The building fabric itself will be designed to attenuate activity noise break-out from the building.

Due to the availability of sufficient space, it will not be feasible to locate a large ATP facility (often a source of activity noise) on this site. A smaller facility is proposed by either retaining the existing facility or by a new facility of a similar size at a similar distance from existing residences.

I) Transport

A fresh assessment (to HCC standards) based on the proposed facilities has been carried out by RLL (see table below), indicating that a maximum of 305 car parking spaces are required (incl. 15 accessible spaces) based on this highly accessible location, taking into account the provision required for the indoor and outdoor bowls facilities (excluded from original assessment). We note that WCC now determine parking standards and it is therefore feasible that the above figures may be subject to further revision. Provision for drop-off by cars and coaches and for minibus and motorcycle parking (11 no. spaces) will also need to be considered and cycle parking requirements will need to be assessed.

If, for comparison, parking is calculated to the former national PPG13 standards*, a maximum of 446 car parking spaces would be needed based on 9,366m² (7,339m² sports centre plus 2,027m² bowls centre) = 425 spaces plus 21 accessible spaces). However this maximum provision would also be discounted to take into account the highly accessible location, resulting in a lower parking requirement.

^{*} PPG13 Annex D: D2 use maximum car parking calculated 1 space per 22m² of facilities, plus additional allowance for accessible parking (assumed at 5% of total).

The above strategy will need to be developed and finalised as part of the transport strategy, taking into account the availability of parking on other, nearby car parks, which currently are also used to meet peak parking demand, together with provision for general park usage for recreation, etc.

Facility	HCC reduced standard due to high acces- sibility factor	Area (m², ha.) no. of units	No. of spaces	Notes
25m x 21m 10-lane pool, plus 20m x 10m teaching pool	1 / 15m²	725	48.3	
250 spectators	1 / 7.5 seats	250	33.3	
Extra for 50m x 17m pool	1 / 15m ²	100	6.7	
8-court sports hall	1 / 45m²	840	18.7	Based on 2 no. 28m x 15m basketball courts. If based on badminton, will reduce to 686m ² = 22.8 spaces
500 sports hall specta- tors	1 / 7.5 seats	500	66.7	
4 no. squash courts	1 / court	4	4.0	
180-station fitness gym	1 / 15m ²	810	54.0	
4 no. multi-purpose studios	1 / 15m ²	496	33.0	
Cafe	1 / 7.5m ²	30	4.0	
4 no. treatment rooms	1 / 15m ²	40	2.7	
Hydrotherapy: staff	1 / 2 staff	4	2.0	
Hydrotherapy: clients	1 / 8 clients	2	1.0	Practical assessment
Tennis courts	1 / 5 courts	4	6.0	Practical assessment
Bowls centre	3 / lane	6	0.0	
Sub-total			298.4	
ATP (approx. 40m x 60m)		0.04	0.02	

Facility	HCC reduced standard due to high acces- sibility factor	Area (m², ha.) no. of units	No. of spaces	Notes
Skate park			0.0	Assume no parking required
Outdoor bowls		8	24.0	Also provided for indoor bowls
TOTAL			305	
No. of accessible spaces			15	Included in above

Notes:-

- i) Athletics track, 3 no. rugby pitches and 2 no. cricket pitches have separate parking.
- ii) No provision is made for general park users or users of play area.

3.3 EXISTING LEISURE CENTRE

Option 1 - Built in 2 phases retaining Bowls Centre Option 1a - Complete demolition of Leisure Centre and built in 1 phase, retaining Bowls Centre

Development on this site would ideally locate new facilities in the same location as the existing Leisure Centre, with new, additional parking provided beneath the dry side facilities. The design of the existing building is conveniently split down the middle between wet and dry facilities, allowing the construction of the new facilities to be carried out in a single phase or in two phases. as required. The site constraints would determine many aspects of the design; this should, however, not compromise the design or efficiency of the facilities. Nonetheless, a key disadvantage would be the loss of either the wet or dry or both facilities for the duration of the construction period, depending on the phasing option selected. There is little potential for further expansion of the facilities due to the extent of the built form in relation to flood storage capacity and other site constraints, e.g. parking.



Phasing diagrams for:-

Option 1 - Built in 2 phases retaining Bowls Centre



Proposed ground floor plan - existing

Proposed ground floor plan - indicative phase 1 demolition

Phasing diagrams for:-

Option 1 - Built in 2 phases retaining Bowls Centre





Proposed first floor plan - indicative Phase 1

Proposed ground floor plan - indicative Phase 1

Complete scheme for:-

Option 1 - Built in 2 phases retaining Bowls Centre

Option 1a - Complete demolition of Leisure Centre and built in 1 phase, retaining Bowls Centre



Proposed ground floor plan - Complete

Proposed first floor plan - Complete



View from south

3.0 Site 1: North Walls



3.4 INDOOR BOWLS CENTRE / EXISTING LEISURE CENTRE

Option 2 - Built in 2 phases, including new Bowls Centre

Option 2A - Complete demolition of Leisure Centre and build in one phase, including new Bowls Centre

An essential aspect of this option is the demolition of the existing indoor Bowls Centre to allow the construction of new Leisure Centre (phased or not), which would include the construction of new indoor bowling facilities: because these are incorporated within the new Sports Centre, the overall footprint of the building will be smaller than the combination of the existing Leisure Centre and indoor bowling. Additional parking would be provided as external parking. As an alternative, the works could be carried out in a single phase. There is little potential for further expansion of the facilities due to the extent of the built form in relation to flood storage capacity and other site constraints, e.g. parking.



Proposed site layout

Phasing diagrams for:-





Proposed ground floor plan - indicative Phase 1

Phasing diagrams for:-

Option 2 - Built in 2 phases, including new Bowls Centre



Completed scheme for:-

Option 2 - Built in 2 phases, including new Bowls Centre Option 2A - Complete demolition of Leisure Centre and build in one phase, including new Bowls Centre





View from north



View from south

3.0 Site 1: North Walls



3.5 OPTION 3 - TENNIS COURT SITE

Locating the new building on the site of the existing tennis courts and ATP, would allow the existing indoor Sports Centre and indoor bowls facilities to remain operational during construction and the indoor bowls facilities can remain on completion. Although the existing cricket pitch can be moved slightly to the north, the development will still be tightly constrained, especially if a 50m pool option is selected and there is little scope for any further expansion.





Proposed first floor plan





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4.0 Site 2: Bar End

4.1 BAR END - SITE CONTEXT AND CONSTRAINTS

Introduction

The Bar End site is the location of the existing University of Winchester sports facilities, including the athletics track and ATP, jointly owned with WCC, as well as the King George V playing fields and the Garrison Ground playing fields. Although on the outskirts of Winchester, it has good connections to the town centre, as well as regional connections via the M3 motorway. The following is a summary of the constraints which will influence development of the site.

a) Land ownership and restrictions

The sections of land forming the site under consideration includes areas separately owned by Winchester County Council (depot and playing fields), the University of Winchester (athletics track), Hampshire County Council (unused open land adjacent to archive) and Tesco (playing fields). The land which comprises the King George V playing fields is subject to protection.

b) Topography

The site is relatively flat and low lying. The low point (33m AOD) is on the west side, adjacent to the main road. The depot site is at 38.7m AOD and the access at 35.1m AOD, gradually rising to the east (39.5m AOD at centre of ATP) towards the adjacent King George V playing fields (c40m AOD). This compares to the North Walls site which has a level of c37m / 38m AOD.

c) Existing buildings

On the WCC depot land, there are a number of existing buildings that would potentially be demolished as part of the development. Surveys will be needed to ascertain the extent / presence of asbestos prior to demolition. The possibility of retaining materials from the demolished buildings on the site (crushed and used for hardstandings, etc.) will be considered to limit the export of materials from site. The existing University of Winchester changing blocks are to be retained as part of the overall development.

All main utilities are present on the site and further investigation will be needed to determine suitability to serve the proposed development. However, due to the low level of previous development, it can be assumed that upgrading will be needed.

Where possible, the proposed buildings should be located to avoid conflict with existing services, but where it is not feasible to avoid these, the cost of diversion will need to be included. Scanning of the site will also be needed in order to establish their exact location, although not all services can be traced by this method. Of particular note is the presence of an HV supply bisecting the existing ATP and which may be costly to divert.

e) Ecology

An existing ecological appraisal has been carried out by Ecological Planning and Research Ltd. Key aspects include:-

- Some species-rich hedgerows present and recommended for retention; otherwise hedgerow survey needed if to be removed
- Bat survey needed
- Bats may have impact on proposed lighting solutions
- Trees and shrubs may provide habitat for nesting birds
- Slow worms or common lizards may be present
- Proposed mitigation may include development of perimeter area as reptile habitat
- Further surveys for bats, reptiles and hedgerows needed
- Retain areas of shrub
- Include bird and bat boxes

4.0 Site 2: Bar End

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Existing site constraints

4.0 Site 2: Bar End



4.0 Site 2: Bar End

f) Arboriculture

There are very few trees on the site, apart from some at the perimeter and adjacent to the Tesco and depot sites, a number of which are understood to be subject to TPOs. An arboricultural survey of all trees on the site will be required to determine condition, suitability for retention and extent of root zones.

g) Landscape

The site is quite open and widely visible from the adjacent main road, from the adjacent residential properties backing onto a section of the site next to the depot and from the surrounding hills.

It is noted that the existing athletics track and ATP is currently floodlit. How the building sits and blends within this context will be an important design consideration, as will the impact of any proposed external lighting and flood lighting to external sport facilities. A landscape visual assessment is anticipated to be required in order to inform the design and minimise the impact of the development.

h) Ground conditions

The underlying geology of the site is understood to be similar to that at North Walls, i.e. chalk overlain with silty deposits. However, this site is well drained and loamy. Intrusive investigations will be needed to inform the design in terms of loadbearing capacity, presence of ground gases, contamination and percolation. The existing depot site can be expected to have some potential for contamination due the historic use as a depot.

i) Flood risk and drainage

A flood risk design note has been prepared by Ramboll (November 2013) and key aspects include:-

• The Bar End site is mainly in flood zone 1 (low probability), although there is an area of flood zone 3 stretching across the site, possibly a culverted watercourse or dry ditch (requires further investigation)

- Flooding from a combination of river and ground water should be a consideration
- Main risk is from culverted watercourse, but only affects a small part of the site
- No information on existing ground water levels

No information is currently available regarding the location, invert levels and the capacity of any existing below ground drainage systems. Investigations will be required to identify these.

j) Heritage and archaeology

A Cultural Heritage Assessment has been undertaken by Ramboll (January 2014) and key aspects include:-

- The site is in proximity to a number of listed buildings, Scheduled Monuments and the Riverside and St. Giles Hill Eastern Suburb Conservation Area
- Most of these have no inter-visibility with the site
- The St. Catherine's Hill Fort to the south west has commanding views of the site and is an important view point
- The site has a high potential for below ground archaeological remains
- The entrance gates to the King George V recreation area is of local importance
- St. Catherine's Hill Fort is a Scheduled Monument of national importance and is a locally valued landscape feature
- Excavations will impact on below ground archaeology and mitigation will be required
- Development will impact on the setting of St. Catherine's Hill Fort, but the area already contains much recent development, especially M3 and well separated from the fort
- Intrusive archaeological investigations will be required and should be combined with site investigations
- Study of depot buildings may be needed
- Heritage assessments need to be integrated with LVA

k) Acoustics

Part of the existing site has been previously developed and there will be noise already associated with this use. Noise from use of any proposed car park, plant noise from the buildings and activity noise from internal and external sports facilities will need to be considered. Any increase in intensity of the use of the site has the potential to increase noise disturbance and these aspects will therefore need to be considered early on in order to minimise their impact on the surrounding environment. A background noise survey will be needed for the site to establish current noise levels and the location of receptors.

The presence of the adjacent M3 motorway is expected to be noticable as an elevated noise level.

I) Transport

A transport assessment by Ramboll has been undertaken (November 2013). 363 no. car parking spaces are identified as needed, as there is no current provision on site (apart from spaces serving the athletics track) and the location is less accessible than North Walls. A further revised assessment has been provided by WCC, indicating that a maximum of 467 no. spaces are needed. Hampshire County Council standards are applied, but these are no longer relevant and WCC are to determine requirements. No WCC standards are yet available.

m) Planning

Consultation took place with WCC Planners on 2 May 2014 regarding the initial sketch site layouts contained in Appendix A. The following is the advice received from the Planners subsequent to that meeting.

Relevant Planning Policy: Advice Note

Proposals for the redevelopment of the River Park Leisure Centre have been presented to WCC Planning to establish the planning policy position. The options presented relate to two sites within the Winchester District area. For each site there are several options to be considered and the planning position in relation to all options is set out below.

Over-arching policy context

Spatial strategy

In terms of the spatial strategy for Winchester Town as set out in the Local Plan Part 1 Joint Core Strategy (LPP1), it is recognised through the Development Strategy and Principles policy DS1 that there is a presumption in favour of sustainable development as outlined in the National Planning Policy Framework. A series of guiding principles are contained within policy DS1.

Of relevance to the proposals is its reference to:-

- Integrating development of homes, jobs, services and facilities
- Applying a town centres approach to retail, leisure or other development proposals that are high attracters of people
- Achieving high standards of design and sensitivity to character, setting and cultural heritage
- Contributing to individual and community wellbeing, health and safety and social inclusivity
- Making the use of public transport, walking and cycling easy, to reduce non-essential car use

In terms of a Development Strategy for Winchester Town policy WT1 of the LPP1 is relevant to the proposals. Of direct relevance to the proposals policy WT1 requires:-

• The promotion of the town centre as the preferred location for new development that attracts high visitor numbers such as retail, commercial and offices, leisure, culture and tourism. Proposals for new floor space of 1,000m² or more outside the defined town centre will need to demonstrate that it would not have a harmful impact on the town centre.

4.0 Site 2: Bar End

Recreational facilities

Policy CP7 of the LPP1 relates to open space, sport and recreation uses and would apply to the current proposals. Policy CP7 positively encourages improvements to the open space network and in built recreation facilities within the District, to achieve the type of provision, space required and levels of accessibility set out in the Council's most up to date open space and built facilities standards. The policy indicates that this would be achieved by new and improved provision, or by improving public access for all to existing facilities and educational provision.

This site lies to the south of Winchester adjacent to the Bar End Road. The existing buildings associated with the former depot site lie within the settlement boundary of Winchester, but the surrounding sports fields and athletics track are located within a countryside location as defined by the Local Plan. The South Downs National Park is located to the east of the site on the eastern side of the M3. The site is generally exposed to the surrounding countryside on its southern and eastern edges. Given the wide and long distance views of the site and its proximity to the South Downs National Park any significant redevelopment proposals will be subject to a careful Landscape Visual Assessment to minimise its impact on the surrounding area.

Several development / location options were proposed for the development of a new leisure centre in this location, and from a planning perspective it was made clear that the new building and associated facilities should be located in the least visually intrusive location within the site and therefore the preferred location would be closer to the Bar End Road rather than more exposed locations to the east. In addition to the above, all the options presented would be subject to the following planning considerations:-

- High quality design: DP3 of the WDLP and CP13 of the LPP1
- Respecting the landscape character of the surrounding area: CP20 of the LPP1
- Replacement and enhancement of existing recreational facilities: CP7 of the LPP1

- Sustainability factors: CP11 of the LPP1
- Hampshire Car Parking standards

Refer also to Savills' 'Leisure Centre Planning Study Winchester, dated July 2013'.

4.2 DESIGN RESPONSE

Introduction

The overall site is attractive, with extensive, existing, outdoor sports facilities. New indoor and outdoor facilities would complement existing pitches and track to provide a comprehensive 'sports hub' facility for the benefit of both WCC and University of Winchester users and would provide the opportunity to remove negative site features and enhance the site landscape and ecology.

a) Land ownership and restrictions

Both site options depend on either the acquisition of land from another party or coming to an agreement for access over land not owned by WCC, or both. If either of these options are to be progressed, gaining the necessary rights and ownerships will be essential aspects.

b) Topography

The key influence is the need to avoid the low lying category 3 floodrisk land and the high visibility from the surrounding viewpoints from surrounding hills. See landscape section.

c) Existing building

The existing depot buildings will be demolished in connection with the development. Copies of existing asbestos surveys and further intrusive asbestos surveys of the depot buildings and site will be needed in order to ascertain the presence of asbestos to allow for safe removal. The possibility of retaining material from the demolished buildings on site and used for hard standings, etc. will be considered to limit the export of materials from site. This will also be a consideration in determining the levels of the proposed building.

d) Utilities

New water, gas, electricity and telecoms utilities are likely to be needed to serve the proposed new developments.

e) Ecology

The existing areas of scrub adjacent to Bar End Road will be retained and other parts of the site not used for pitches will be developed to provide suitable habitat for reptiles and other wildlife. Existing trees and hedgerows will be retained, where feasible. Biodiversity will be increased and measures may include the use of green roofs. Bird and bat boxes will be included within the development.

f) Arboriculture

Trees determined to be worthy of retention (including those with TPOs) will be retained as part of the development. The impact on root protection zones will need to be minimised through design. Additional trees will be planted to enhance the development and screen areas of parking.

g) Landscape

The building will be developed to minimise the impact on the landscape. Dark, recessive materials will help the building to merge into the landscape. The use of a green roof above the pool will provide an ecological and visual connection between the building and the natural landscape.

h) Ground conditions

The limitations of the available information has meant that assumptions had to be made about the required sub-structure, which are assumed to be similar to North Walls, though less severe. There is therefore the possibility that conventional spread foundations could be used.

i) Flood risk and drainage

Similar considerations will apply to the proposals at Bar End as has been considered for North Walls. It is noted that there is a low probability of flooding on this site, as the site levels are higher than at North Walls. There is currently no information about the level of the

4.0 Site 2: Bar End

water table, but as the site conditions can be anticipated to be similar, it is assumed at this stage that the water table is relatively high. Further investigations will determine this in due course.

The proposed sites being considered, all avoid the small section of the site classified as 'high probability of flooding'. It is not anticipated that the ground floor will need to be elevated on this site, or for any special water retaining construction to the ground floor slab, although below ground construction, e.g. basements and pool tanks, will need to be of waterproof construction. Normal conditions are assumed to apply to the design of the drainage systems and underground pool water treatment pipework due to the non-availability of site investigations.

Drainage strategy

As most of the site has not been developed (with the exception of the depot site), it is likely that the existing capacity on the site for the new development is insufficient. However, it is assumed that capacity will be available in the adjacent main road, although attenuation and SUDs for surface water and foul drainage will be required.

Surface water disposal

It is noted that the site is understood to be free draining and, therefore, there may be scope to dispose of surface water through infiltration. The new development will increase the amount of hard surfacing on the site and it can be expected that the rate of surface water disposal will need to be attenuated to match greenfield run-off rates, using SUDs techniques. Permeable surfacing or petrol interceptors will be used to filter pollutants from run-off. These proposals can be finalised once the site investigations are available and following consultation with the drainage authority.

j) Heritage and archaeology

The main issue is the high visibility of the site from the hills surrounding the site and from St. Catherine's Hill Fort in particular. The materials used for the building can be selected to help merge the building with the landscape and a green roof could be considered. The effect of car parking can be reduced through the use of suitable landscaping. An important consideration will be the lighting of the external parking areas and external sports facilities. Using high quality, low light spillage fittings will minimise light pollution. From a visual perspective, locating these light sources next to existing light sources, e.g. the existing main road or existing floodlit pitch and track, will minimise the spread / extent of lit facilities and will ensure that new areas are not lit islands in surrounding dark areas.

k) Acoustics

The proposed facilities and parking will be additional uses on this site and care will need to be taken to minimise any effect on neighbouring residences. However, all site options are likely to see the removal of the existing depot use and this will be of benefit to the adjacent residences.

The proposed site access from Bar End Road will need to be located to the south of the existing residences. Some form of acoustic buffering between the back gardens to these properties and the new development will be considered to minimise any effect. If this part of the site is developed for new residential or B1 use, this may achieve the required buffering.

On all site options, both the proposed building and the main plant serving the building will be located away from the residences.

Ventilation plant will be attenuated to achieve suitably unobtrusive levels in relation to background noise levels and careful consideration of pool AHU plant will be needed as this will, from necessity, run 24 / 7. Use of natural ventilation will be balanced with containment of indoor activity noise, with attenuation provided as necessary. Internal reverberation levels will be controlled to achieve good speech intelligibility by limiting reflected sound. The building fabric itself will be designed to attenuate activity noise break-out from the building.

Although tennis courts are to be included in all options, only the Tesco site option will have sufficient space to include an additional, full sized ATP and this will be located away from residences to limit the impact from activity noise.
4.0 Site 2: Bar End

I) Transport

A fresh assessment of parking requirements (to HCC standards) to serve the proposed facilities has been carried out by RLL (see table below), indicating that a maximum of 431 spaces are required (incl. 22 accessible spaces) in this less accessible location, based on the 50m pool option. We note that WCC now determine parking standards and it is therefore feasible that the above figures may be subject to further revision.

Provision for drop-off by cars and coaches and for minibus and motorcycle parking (18 no. spaces) will also need to be considered and cycle parking requirements will need to be assessed.

If, for comparison, the parking is calculated to the former national PPG13 standards*, a maximum of 349 spaces would be needed based on 7,339m² sports centre facilities, plus 16 no. accessible car parking spaces, However, this method of calculation makes no provision for the existing sports facilities and additional parking to serve the existing grass pitches would be needed (as they have no existing parking provision and utilise the nearby park and ride car park).

A comprehensive transport assessment of the whole site may need to be developed in the next stage of the project, taking into account the availability of parking on other, nearby car parks, e.g. park and ride, together with requirements for existing pitches and athletics track. The Highways Agency will require the assessment to consider any impact on the slip roads of junction 10 at peak times and for sporting events attracting high numbers of spectators.

Facility	HCC parking standards	Area (m², ha.) No. of units	No. of spaces required
25m x 21m 10-lane pool, plus 20m x 10m teaching pool	1 / 10m ²	725	72.5
250 spectators	1 / 5 seats	250	50.0
Extra for 50m x 17m pool	1 / 10m ²	100	10.0
8-court sports hall	1 / 30m ² playing area	840	28.0
500 sports hall spectators	1 / 5 seats	500	100.0
4 no. squash courts	2 / courts	4	8.0
180-station fitness gym	1 / 10m ²	810	81.0
4 no. multi-purpose studios	1 / 10m ²	496	49.6
Cafe	1 / 5m ²	30	6.0
4 no. treatment rooms	1 / 10m ²	40	4.0
Hydrotherapy: staff	1 / 2 staff	4	2.0
Hydrotherapy: clients	1 / 2 clients	2	1.0
Tennis courts	3 / courts	6	18.0
ATP (approx. 40m x 60m)	12 / ha.	0.12	1.44
TOTAL			431.54
No. of accessible spaces			22.0

Notes:-

- Table includes calculation for new Tennis Courts and ATP
- Athletics track, grass pitches and existing ATP have separate parking, which will either be retained or replicated.

^{*} PPG13 Annex D: D2 use maximum car parking calculated 1 space per 22m² of facilities, plus additional allowance for accessible parking (assumed at 5% of total).

4.0 Site 2: Bar End

4.3 OPTION 4 - WCC AND TESCO SITE

Building a new Sports Centre on the site would ideally locate the new facilities close to the main access, with parking efficiently provided adjacent to these. Depending on the land available to be purchased, the facilities would be relatively unconstrained. The athletics facilities would also benefit from improved access and the removal of the existing depot facilities would benefit adjacent residences and, potentially, the site could be enlarged to provide space for additional facilities. The new building, parking and external facilities would appear to be an extension to the existing built form rather than an intrusion into green, open space and the works could be constructed in a single phase, maintaining service provision. This is the only location on the site that would allow the provision of the full extent of the internal and external facilities desired. The development would depend on cooperation with the existing land owner Tesco and further land may need to be acquired from HCC to re-provide a grass pitch lost as a consequence of the development.







Proposed ground floor plan

Proposed ground floor plan

4.0 Site 2: Bar End



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View from south

4.0 Site 2: Bar End



4.0 Site 2: Bar End

4.4 OPTION 5 - HCC AND WCC SITE

Building a new Sports Centre to the east of the existing athletics track has the potential to create a relationship between the existing track and the new building. The new facilities would also be located relatively centrally within the overall site and, therefore, convenient to serve the existing pitches. A new access from the main road would serve the overall development and would allow potential development on the existing depot site. Development adjacent to the existing floodlit facilities would mean that the new Sports Centre is seen as an extension to the existing facilities. The shape of the building would be tightly constrained by the adjacent track and playing field (with the opportunity for further expansion) and cooperation would be needed with the University of Winchester, Hamsphire County Council and Fields in Trust.







Proposed ground floor plan

4.0 Site 2: Bar End



4.0 Site 2: Bar End



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5.1 INTRODUCTION

In March 2014, Winchester City Council commissioned Roberts Limbrick Architects to carry out a Technical Options Appraisal on the future leisure centre provision in the city on behalf of the Council. Mace were appointed by Roberts Limbrick to assist them in the preparation of the report providing input on

• Programme

ProcurementRisks

- Phasing
 - Costs

This section is a summary of the Mace report, which is provided in a more detailed form as a stand alone document.

5.2 BRIEF

The Council now wish to make a decision on the future leisure centre provision in the city, with the following options having been considered:

- Options 1, 1A, 2, 2A, and 3 covering both a phased approach and single phase new build at North Walls Site
- Option 4 and 5 Single phase New build approach at Bar End

Both sites identified for the replacement Leisure Centre have their opportunities, constraints and challenges which have been covered in the earlier sections of this report. The North Walls site would need a phased approach if utilising the existing site footprint, if a swimming pool is to remain available throughout. The site also suffers with flooding in the lower corner. The new build option on the North Walls site may present challenges due to sensitivity, which should be considered against the other options explored in the report.

The Bar End site has a potential contamination problem in relation to the current highway depot. In addition, the proposed developments could be compromised by site ownership issues with Tesco, the County Council, the University and the Fields in Trust.

However, if these issues can be overcome then these sites have arguably the best outcomes in terms of construction costs and deliverability.

Both site locations will be subject to the normal regulatory planning processes.

5.3 Overview

The output of the technical report aims to provide Winchester City Council with a document that identifies on how they can develop their future leisure facilities and how to progress the procurement and delivery of their preferred option.

Summary of Programme Phasing Cost Procurement & Risks

Appraisal of the Existing Sites

The initial exercise undertaken was to gain a thorough understanding of the existing facilities and appraise the suitability for phased and single phase construction at the North Walls and single phase new build at Bar End.

In the first instance, the team undertook a number of thorough visual site inspections across the two sites in order to to ascertain the provisions currently available and gain clarity on the limitations and constraint. In addition, the structural and existing services provisions were investigated, particularly in relation to the phased construction approach.

Programme & Costs

Option 1 - North Walls

Enabling work, asbestos removal:

- We estimate a 22 week period will be required for enabling works.
- A temporary AHU and ductwork mods will be required to keep the pool operational when the sports hall is demolished.
- A temporary entrance to the pool and gym will need to be created along with gym space to offset that lost to form the temporary entrance.

- Temporary offices and welfare will be needed for the centre management. This would comprise, two private offices and meeting room plus a general office with nine desk spaces, staff wc's and mess area.
- The pool/hall dividing wall will need to be upgraded to provide full protection during the demolition and reconstruction of the adjacent site.

Phase 1 construction – pool:

• We estimate a 71 week programme for demolition and new pool construction, plus two weeks staff training before the new facility could be opened in June 2017.

Phase 2 construction – sports hall:

- We estimate a 62 week programme for demolition and dry side construction, plus four weeks final snagging, training and inductions before the new facility could be opened in October 2018.
- Sports hall constructed on podium slab with undercroft parking.

Cost: £24,681,138 including inflation to 1Q 2017.

Option 1A

Decommissioning the current leisure and demolition:

• We estimate a 10 week period will be required for decommissioning and demolition works.

Single phase construction

- We estimate an overall 106 week programme for demolition and wet/dry side construction, plus four weeks final snagging, training and inductions before the new facility could be opened in May 2017.
- Sports hall constructed on podium slab with undercroft parking.

Cost: £22,776,491 including inflation to 2Q 2016.

Option 2 - North Walls

Enabling work, asbestos removal and demolition:

- We estimate a 22 week period will be required for enabling works.
- No temporary facilities for the existing sports centre are required.

Phase 1 construction – dry sports and bowls:

We estimate a 58 week programme for demolition and dry side construction, plus four weeks final snagging, training and inductions before the new facility could be opened in March 2017.

Phase 2 construction - pool:

• We estimate a 71 week programme for demolition and new pool construction, plus two weeks staff training before the new facility could be opened in June 2018.

Shorter construction programme than Option 1 due to no undercroft parking.

Cost: £27,586,221 including inflation to 3Q 2016.

Option 2 A- North Walls

Decommissioning the current leisure and demolition:

• We estimate a 10 week period will be required for decommissioning and demolition works.

Single phase construction

- We estimate an overall 93 week programme for demolition and wet/dry side construction, plus four weeks final snagging, training and inductions before the new facility could be opened in February 2017.
- Shorter construction programme than Option 1A due to no undercroft parking.

Cost: £25,705,881 including inflation to 1Q 2016.

Option 3 – North Walls

- We estimate an 85 week single phase construction period, plus four weeks final snagging, training and inductions before the new facility could be opened in April 2017.
- No temporary facilities for the existing sports centre are required.

Cost: £22,294,755 including inflation to 1Q 2016.

Option 4 – Bar End

Enabling work, asbestos removal:

- We estimate a 10 week period will be required for enabling works.
- There are known to be existing underground fuel tanks at the depot, and so some contamination issues should be expected.

Construction:

 We estimate a 76 week single phase construction period, plus four weeks final snagging, training and inductions before the new facility could be opened in April 2017.

Cost: £25,183,150 including inflation to 1Q 2016.

Option 5 – Bar End

Enabling work, asbestos removal:

• We estimate a 10 week period will be required for enabling works.

Construction:

• We estimate a 76 week single phase construction period, plus four weeks final snagging, training and inductions before the new facility could be opened in April 2017.

Cost: £24,698,691 including inflation to 1Q 2016.

5.4 Phasing

As described in the proposed phasing diagrams in the Appendix report, the construction of the North Walls site could be constructed on the existing leisure centre footprint but would need close coordination and temporary structures to house key leisure centre activities such as the gym and the staff areas.

The phases are broken down as follows:

- Enabling works
- Demolition and remaining asbestos removal
- Wet/dry side pool construction
- Pool opening
- Dry/wet side construction
- Leisure centre opening

As can be seen in the proposed programmes and commentary, the overall durations proposed for these construction options are extensive and will come at a premium cost due to the required level of site prelims over the duration of the construction phase.

Cost

The costs are based on in-house and external benchmark cost data for projects of this nature. We have applied a benchmark rate specific to the swimming pool construction and bowls facility where differentiated. The costs we have produced are based on seven base options, five being on the North Walls site and two on the Bar End site. We have also applied current market rates for fees and established potential inflation rates in accordance with BCIS cost data. However, these are currently forecast figures for the forthcoming quarters, and it must be recognised that the fluctuation in the current market trend makes it very difficult to predict accurately the true impact on inflation in the longer term. As you will note we have also applied site specific abnormal costs relevant to the site and its inherent ground / site wide elements.

We would recommend that these options are considered taking into account the assumptions and exclusions that are listed within our order of cost estimate. The cost options that have been presented indicate an estimated cost for a 25 metre pool leisure centre with an indicative cost uplift to provide a 50 metre pool (£2,000,000) for cost option comparison purposes only.

In addition, the Mace team believe that there may funding opportunities through the Sport England but the duration and application process can be prohibitive in relation to the overall programme and would need careful consideration before submitting any applications..

Procurement

The following Order of Cost Estimate Summary and cost commentary are extracted from our more detailed Appendix report, under separate cover.

Order of Cost Estimate

Winchester Leisure Centre

Section 1. Commentary

15 August 2014

- 1. Introduction
- 1.1 This Order of cost Estimate is for a new build construction leisure centre located within Winchester

Site 1: North Walls

Option 1/1a - Existing Leisure Centre Site Option 2/2a - Existing Leisure Centre Site Option 3 - Tennis Courts / ATP site

Site 2: Bar End

Option 4 - Combination of WCC owned depot site and adjacent land acquired from Tesco and possibly HCC

Option 5 - Combination of WCC owned depot site, University of Winchester land, WCC1 and behind and adjacent HCC owned land adjacent to archives

2. Exclusions

The following items are not included in this estimate of construction cost and allowance should be made elsewhere:

- 2.1 Planning and building control fees
- 2.2 Any costs directly incurred by the client
- 2.3 Works to neighbouring properties / boundary wall agreements
- 2.4 Abnormal ground conditions
- 2.5 VAT
- 2.6 Compliance with onerous planning conditions
- 2.7 S106/278 works

- 2.8 Legal fees
- 2.9 Design reserve
- 2.10 Requirement for attenuation
- 2.11 FFE allowance
- 2.12 Contaminated material
- 2.13 Temporary accommodation
- 2.14 Asbestos works to existing structures
- 2.15 Extensive site levelling
- 2.16 Retaining structures
- 2.17 External signage
- 2.18 Surveys
- 2.19 Upgrade to incoming services
- 2.20 Diversion of existing services and site obstructions
- 2.21 Land Acquisition costs
- 2.22 Temporary Car Parking
- 2.23 Works / Diversion to existing HV cable at Bar End site.
- 2.24 Works / Diversion to land pipe at Bar End site
- 2.25 Inflation has been applied to the mid-point of construction in line with the programme. Therefore the level of inflation applied to each option is dependant on duration. Please refer to the cost breakdowns for specific option inflation rates.



Order of Cost Estimate

Section 1. Commentary

15 August 2014

Winchester Leisure Centre

3. Assumptions

The following assumptions have been made within this estimate of construction cost:

- 3.1 Inflation has been applied based on the BCIS indices assessed 3Q 2014 and as per indicative Mace programme information
- 3.2 Cost options have been based on benchmark data
- 3.3 Contingency assumed at 10%
- 3.4 Refer to assumption notes throughout elemental option sheets
- 3.5 Professional fees assumed at 10%
- 3.6 Inflation has been taken up to the mid-point of the construction period on an option by option basis.

4. Information used

The following information was used in the preparation of this estimate:

Roberts Limbrick Architects Information:

Outline Facility Brief and Site Options Appraisal May 2014

Order of Cost Estimate

Winchester Leisure Centre

Section 2. Summary

Summary of Costs

	North Walls Option 1	North Walls Option 1A	North Walls Option 2	North Walls Option 2A	North Walls Option 3	Bar End Option 4	Bar End Option 5
Construction only cost	16,186,000	16,186,000	18,533,100	18,533,100	16,210,000	18,827,000	17,727,000
Additional Preliminaries and OH&P (phasing)	809,300	n/a	926,655	n/a	n/a	n/a	n/a
Sub Total Construction Cost	16,995,300	16,186,000	19,459,755	18,533,100	16,210,000	18,827,000	17,727,000
Professional fees @ 10%	1,699,530	1,618,600	1,945,976	1,853,310	1,621,000	1,882,700	1,772,700
Contingency @ 10%	1,869,483	1,780,460	2,140,573	2,038,641	1,783,100	2,070,970	1,949,970
SUB TOTAL PROJECT COST	20,564,313	19,585,060	23,546,304	22,425,051	19,614,100	22,780,670	21,449,670
Site Specific Abnormal Costs	1,135,000	1,135,000	1,285,000	1,285,000	935,000	375,000	1,340,000
Total Project Cost (25m pool)	21,699,313	20,720,060	24,831,304	23,710,051	20,549,100	23,155,670	22,789,670
Inflation (see specific option for base date)	2,981,825	2,056,431	2,754,918	1,995,830	1,745,655	2,027,480	1,909,021
Estimated Project Cost	24,681,138	22,776,491	27,586,221	25,705,881	22,294,755	25,183,150	24,698,691
Estimate Extra Over for 50metre Pool	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000
50 Metre Pool Total Project Cost	26,081,138	24,176,491	28,986,221	27,105,881	23,694,755	26,583,150	26,098,691



The construction market has started to recover across the country having been hit hard by the recession. In real terms, nearly 300,000 employees have left the industry and, as the market recovers, issues are starting to appear with regards to resources and contractor deliverability.

Mace recently undertook a pre-qualification exercise via the Office of Joint European Union processes (OJEU) following pre-qualification. Just 48 hours prior to the issue of tender documentation, three of the four pre-qualified contractors withdrew due to the nature of the single stage tender process and resource availability to commit to the tender. This resulted in a change to the procurement strategy, reverting to a two stage process so that the client was able to obtain a competitive price during the first stage.

The benefits to the Council are:

- · Ownership of the procurement process by all internal WCC stakeholders
- Obtain specialist supplier input into RIBA stage 2/3/4 design (M&E, Pool Tank and Filtration)
- Review of the NEC3 contract strategy and allows selection of the optimum clauses
- Detailed planning and monitoring of all design package release stages for procurement.
- Construction Management enables the Client to buy in specialist team with sufficient experience to deliver the project with the local supply chain, which would provide local political support. This method can also offer substantial cost, quality and programme benefits.
- Design and Build single/two stage offer risk, programme and cost certainty, attracting competent contractors to deliver complex pool projects could be an issue it also allows the specialist supply chain (filtration / MEP) to be engaged bringing cost certainty to the project.
- Hybrid competitive dialogue offers the same Design and Build benefits and cost benefit in the final negotiations.

Professional Team

We have provided a high level procurement options matrix but, in our programme, we have recommended use of a framework such as the East Shires Procurement Office (ESPO). This will allow the client to control who they appoint due to the specialist sports and leisure requirements and also provide two clear points of contact via the project manager and lead designer.

The framework is OJEU compliant and also facilitates direct appointment if value for money can be shown by the professional team. This process also improves the programme durations due to the shortened procurement timescales. In addition Hampshire County Council have number frameworks that could also be utilised for this purpose.

Contractor

As described above, the construction market is starting to warm up in certain areas of the country. This is starting to feed into construction inflation and resource shortages. It is therefore critical that client obtains the services of an experienced sports and leisure contractor. It is more likely that this would need to be procured on a two stage basis utilising the IESE framework. Mace have managed this process on a number of sports and leisure projects and it allows the client team the control they need in relation to costs by driving out costs savings through build-ability reviews and risks.

Form of Contract

We acknowledge that a NEC3 contracting strategy is likely to be the Council's preferred method. We have utilised this contract form on a number of projects and can confirm that any of the procurement methods identified can be adopted to suit the agreed procurement strategy.

We believe there is opportunity to provide programme and cost certainty by considering alternative methods of procurement. Therefore a formal review of the procurement strategy should take place at the earliest opportunity, following Council's decision on the preferred option.

Risks

There are number of risks of opportunities that would need to be explored via a risk workshop in the next stages of the project. The Mace cost management team have currently built a 10% contingency cost which consummate with a project at this stage of development.

Conclusion

In conclusion, following the comprehensive evaluation of the technical options undertaken, some of the options will be cost prohibitive due to the durations and carry an element of risk in regards to the day to day operations of the existing leisure centre.

The north walls options 1 to 3 and the sub options all suffer with a loss of facilities which would be issue for the council incumbent operator. Both the new build and phased new build options are viable. However, whilst the phased option is marginally less in terms of capital cost, it is not as cost effective as the New Build. The programme for the phased construction works will require phased closures, relocation/management of employees, and reduce the available leisure provision for considerable periods of time.

The Bar End new build options 4 and 5 would effectively be complete at least 12 months earlier if the site ownership issues could be resolved. This could possibly be further advanced depending on the procurement route and detailed phased refurbishment comparison. Based on the programmes presented within the report, albeit it shows a 'fast-track' in terms of obtaining a decision, this will mitigate unnecessary expenditure against continual ongoing inflation in the construction market place.

5.0 Procurement phasing, cost and programme

Next steps

Consultation needs to be undertaken in respect of the option chosen. Once consensus is sought, it would be deemed beneficial that the option is progressed into a detailed feasibility study with a view to developing the design to RIBA Stage 3. This will allow further definition on elements such as the facility mix, conceptual design options, procurement, programme and cost certainty. This could be procured as an extended commission of the existing professional team, of which can be single sourced or through a mini competition directly through the ESPO framework.

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From the work prepared in this study it appears that the core internal facilities can be accommodated on all of the site options and that, from a technical perspective, the sites would appear deliverable. The only site that can accommodate both the core internal facilities **and** the aspiration for additional internal and external facilities is the 'Tesco' site at Bar End. All other site options will have reduced external facilities.

6.0 Summary

North Walls : Option 1: existing Leisure Centre site (built in two phases, retaining the Bowls Centre)

- Demolish existing dry sports facilities
- Build new pool facilities
- Demolish existing pool facilities
- Build new dry sports facilities and parking under
- External sports facilities and indoor bowls centre maintained as existing
- Parking capacity increased

Estimated Programme from instruction to proceed:

Pre-contract Enabling works Phase 1: demolition + new pool Phase 2: demolition + new dry sports	54 weeks 22 weeks 73 weeks 66 weeks
Total	215 weeks
Costs - inc. inflation to 1Q 2017	£24,681,138

NB. This does not take into account any further Feasibility work, ie that one option is selected to proceed.

- Well located for sustainable development on established City Centre site
- Pool and existing Indoor Bowls facilities retained throughout
- Dry Sports facilities lost for duration of works
- Little potential for future expansion
- Sensitive planning and design in historic, riverside and residential site



6.0 Summary



North Walls : Option 1A: existing Leisure Centre site (complete demolition of Sports Centre and built in one phase, retaining Bowl Centre)

- Demolish existing Leisure Centre
- Build new wet and dry Leisure Centre with partial parking under
- · External sports facilities and indoor bowls centre maintained as existing
- Parking capacity increased

Estimated Programme from instruction to proceed:

Pre-contract	54 weeks
Enabling works and demolition	10 weeks
Build new Leisure Centre	100 weeks
Total	164 weeks
Costs - inc. inflation to 2Q 2016	£22,776,491

NB. This does not take into account any further Feasibility work, ie that one option is selected to proceed.

- Well located for sustainable development on established City Centre site
- Indoor Bowls facilities retained throughout
- · Pool and dry sports facilities lost for duration of works
- Little potential for future expansion
- Sensitive planning and design in historic, riverside and residential site

North Walls : Option 2: existing Leisure Centre site (built in two phases, including new Bowls Centre)

- Demolish indoor bowls centre and adjacent skate park
- · Build new dry sports and indoor bowls facilities
- Demolish existing dry sports facilities
- Build new pool facilities
- Demolish existing sports facilities
- Construct new parking area

Estimated Programme from instruction to proceed:

Pre-contract	54 weeks
Enabling works and demolition	14 weeks
Phase 2: demolition + new pool	64 weeks
Phase 3: demolition + car park	24 weeks
Total	207 weeks
Costs - inc. inflation to 3Q 2016	£27,586,221

NB. This does not take into account any further Feasibility work, ie that one option is selected to proceed.

- · Well located for sustainable development on established City Centre site
- Pool and dry sports facilities retained with reduced parking
- Bowls Centre lost for phase 1
- Little potential for future expansion
- Sensitive planning and design in historic, riverside and residential site



6.0 Summary



North Walls : Option 2A: existing Leisure Centre site (built in one phase, including new Bowls Centre)

- Demolish indoor bowls centre and adjacent skate park
- Build new dry sports and indoor bowls facilities
- Demolish existing dry sports facilities
- Build new pool facilities
- Demolish existing sports facilities
- Construct new parking area

Estimated programme from instruction to proceed:

Pre-contract	54 weeks
Enabling works	10 weeks
Demolition and new Leisure Centre	85 weeks
Total	139 weeks
Costs - inc. inflation to 3Q 2016	£25,705,881

NB. This does not take into account any further Feasibility work, ie that one option is selected to proceed.

- Well located for sustainable development on established City Centre site
- Pool and dry sports facilities lost for duration of contract
- Little potential for future expansion
- Sensitive planning and design in historic, riverside and residential site

North Walls : Option 3: tennis courts / ATP site

• Build new centre in single phase

Estimated Programme from instruction to proceed:

Pre-contract New Leisure Centre

Total

54 weeks 89 weeks

143 weeks (excluding subsequent demolition of existing centre)

Costs - inc. inflation to 1Q 2016

£22,294,755

NB. This does not take into account any further Feasibility work, ie that one option is selected to proceed.

Service impact: all facilities maintained for duration, apart from existing tennis courts, ATP facility and cricket pitch. All are re-provided at completion.

- Well located for sustainable development on established City Centre site
- Swimming, Dry Sports and Bowls remain available throughout with overall siite (slightly encroaching on cricket pitch)
- Tennis Courts and MUGA lost for duration of build
- New Tennis Courts required to be provided on site of existing Leisure Centre
- Very sensitive location on overall site relationship to Park / Hyde Abbey Gardens
- Little potential for future expansion
- Sensitive planning and design in historic, riverside and residential site



Bar End : Option 4: combination of WCC owned depot site and adjacent land acquired from Tesco and possibly HCC

Build new facilities in single phase, demolition of existing depot buildings and construction of car park and pitches in parallel

Estimated Programme from instruction to proceed:

Pre-contract Enabling works New Leisure Centre

Total

54 weeks 10 weeks 80 weeks

144 weeks (excluding subsequent demolition of North Walls centre)

Costs - inc. inflation to 1Q 2016

£25,183,150

NB. This does not take into account any further Feasibility work, ie that one option is selected to proceed.

- Good site but further from Town Centre
- Sensitive views from surrounding hills
- Site ownership issues
- Depot to be cleared and cleaned
- No loss of facilities but one grass pitch to be relocated
- No constraints on design or additional facilities aspired to
- Opportunity to create a Sports Hub with other WCC + University of Winchester facilities





Bar End : Option 5: combination of WCC owned depot site, University of Winchester land, WCC1 and behind and adjacent HCC owned land adjacent to archives

Estimated Programme from instruction to proceed:

Pre-contract Enabling works New Leisure Centre 54 weeks 10 weeks 80 weeks

Total

144 weeks (excluding subsequent demolition of North Walls centre)

Costs - inc inflation to 1Q 2016

£24,698,691

NB. This does not take into account any further Feasibility work, ie that one option is selected to proceed.

- Constrained site for facilities and car parking
- New access road through Depot site
- Potential development site on Depot also
- Site ownership issues with HCC and Fields in Trust
- Additional ATP can not be accommodated
- Restrictions on future expansion
- Opportunity to develop Sports Hub with other WCC and University of Winchester facilities

APPENDIX A

Sketch site layout options to be considered further

Option 1, phase 1 - North Walls



Option 1, phase 2 - North Walls



Option 1, phase 2 - North Walls



Option 2, phase 1 - North Walls



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Option 2, phase 2 - North Walls



Option 2, Phase 3 - North Walls



Option 3 - North Walls


Option 4 - Bar End



Option 5 - Bar End



APPENDIX B

Other sketch site options considered

Option 6, phase 1 - North Walls



Option 6, phase 2 - North Walls



Option 6, phase 3 - North Walls



Option 7 - North Walls



Option 8 - North Walls



Option 9 - North Walls



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Option 10 - Bar End



Option 11 - Bar End



Option 12 - Bar End



Option 13- Bar End



Option 14 - Bar End



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