

Project Thunderbirds - Pool Design Considerations



Page	Requirement	☑	☒	N/A	Observation / Comment / Action
3.0	Site				
	• Location and site evaluation				
	• Is there space for future expansion?		✘		we wont need to expand if we get the size correct plus there is nowhere to go Agreed. All available space will be utilised. Agreed
	• Is the site fully accessible for pedestrians, cyclists, coaches, cars, public transport, service and emergency vehicles?	✘			site plan needs to reflect this, coaches will need to be considered.
	• Is there adequate parking for staff and pool users?	✘			will be on completion. 6 staff anticipated.
	• Have site constraints been considered ie. shape, contours, visual impact etc?	✘			will be on completion
	• Has the bearing capacity of the ground, soil condition and depth of water table been considered?		✘		SI & GI still to be undertaken for fndn design and perm test
	• Consider location of existing public services?	✘			central to exist BEJSC bldg assumed tie in for all services, check pipe dia supplied?
	• Consider links with existing recreational sports and educational facilities?	✘			Ties with extg BEJSC and school will be maintained and enhanced
	• Is the parking/road network logically laid out?	✘			will be on completion
	• Is there a safe and convenient drop off point by the main entrance?	✘			will be on completion
	• Does the facility look attractive and inviting by day and night?	✘			will be on completion
	• Site Planning				
	• Has the position of existing and new access roads and public utility services been well considered?	✘			tie into extg supplies
	• Is the facility easily identifiable and visible and does it compliment its surroundings?	✘			will be on completion
	• Is the service and maintenance access separate from public car parking and the main entrance?		✘		proposed central zone between extg BEJSC and new plant room for access
	• Is there a dedicated space for service and emergency vehicles?	✘			proposed FA room near main pool/entrance auto main doors to pool for emergency only, zone for emergy svcs in front of main entrance
	• Is the location and orientation of windows appropriate for privacy, and avoidance of glare and specular reflection?	✘			main glazing north and east, proposed overhung eaves with Brise soleil system for sun shading
	• Is there well lit and secure parking / overflow parking and appropriate landscaping?	✘			66 main car park extra plus 40 overflow in school grounds
	• Has the soil sub-strata conditions and water table depth been investigated through a geotechnical survey?		✘		Yes. GI & SI undertaken and available for structural designers.
	• External Design				
	• Does the facility have a clearly identified entrance of appropriate scale?	✘			will be on completion
	• If not, what needs to be done to address this?			✘	N/A
	• Direct and well-defined hard landscaped route(s) for pedestrians?	✘			from main gate and coach parking
	• Safe routes to avoid circulation problems (eg. Road Crossings)?	✘			private access to school
	• Seating areas along pedestrain routes?		✘		seating outside pool building not on access route
	• Drop-off points close to entrance?	✘			propose one way system for drop off and parking
	• Access for people with disabilities?	✘			part of scheme dis plus elec charge points
	• A well-articulated structure?		✘		unsure of this point?
	• Good signage?	✘			will be on completion
	• Well detailed, high quality cladding and roofing materials?	✘			will be on completion
	• Secure cycle storage?	✘			near entrance in central supply zone between both bldgs
	• External access to a first aid room?	✘			proposed FA room near main pool/entrance auto main doors to pool for emergency only, zone for emergy svcs in front of main entrance
	• Vehicle drop off point coach parking spaces?	✘			propose one way system for drop off and parking
	• Appropriate landscaping /planting / trees?	✘			will be on completion
	• Appropriate massing, scale and volume of building for the location and context?	✘			will be on completion
	• Large span structural systems?	✘			how large is large?
	• Carefully considered natural lighting?	✘			where possible due to nature of the building
	• If not, what needs to be done to address this?			✘	N/A
4.0	Organising the Building				
4.1	Relationship of Spaces				
	• Schedule of accommodation		✘		ongoing to be set up
	• Does the swimming pool have the following key facilities arranged with logical and effective relationships between them?	✘			will be on completion

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	• Spacious entrance foyer and reception area?	✘	✘		small entrance with staff office rather than reception. This is a private pool facility rather than an open public pool hence smaller entrance foyer as we do not need people queuing to pay to enter. Suggest for future we look at access controls
	• Social and refreshment area?	✘			small mezz area and vending Look at Pop up catering near building. Vending needs thought as this is a destination
	• Public toilets?	✘			yes but single accessible toilet only.
	• Pool changing?	✘			yes but how many people to be catered for 10 in small pool - 36 in main pool then we need to handle rotation of groups - needs to handle two separate booking groups
	• Accessible changing facilities?	✘			yes but how many people to be catered for
	• Toilet facilities?	✘			yes but how many people to be catered for
	• Pre and post swim showers?	✘			yes but how many people to be catered for
	• Viewing?	✘			yes but how many people to be catered for what is plan for viewing - is it single sided - double sided - are we putting mezzanine around the pool??
	• Pool hall?	✘			yes but how many people to be catered for
	• First aid?	✘			yes
	• Pool side store?	✘			how big? I liked the one at Wycombe Abbey
	• Admin / office?	✘			how many staff? Two
	• If not, what needs to be done to address this?			✘	
	• Staff facilities?	✘			yes but how many people to be catered for Six
	• Plant room?	✘			yes but how many people to be catered for Not sure this is a people thing??
	• Service yard?	✘			yes but how many people to be catered for Not sure this is a people thing??
	• Cleaners stores?	✘			yes but how many people to be catered for Liked the cupboard at High March
	• Other as required?			✘	
	• Have the wet and dry zones of the building been appropriately organised?	✘			yes but how many people to be catered for Dry side is at least one per swimmer - number of bathers is already been stated this is not a leisure centre
	• Is the layout logically planned with good access from the reception to any associated facilities such as:			✘	
	• Fitness suite?		✘		next door in BEJSC building combined
	• Exercise studio?		✘		next door in BEJSC building combined
	• Crèche?		✘		next door in BEJSC building combined
	• Club meeting room?		✘		next door in BEJSC building combined
	• Sports hall ?		✘		next door in BEJSC building combined
	• Fitness equipment room?		✘		next door in BEJSC building combined
	• Multi-purpose secondary hall?		✘		next door in BEJSC building combined
	• Licensed lounge?		✘		next door in BEJSC building combined
	• If not, what needs to be done to address this?			✘	
	• Is the arrangement:				
	• Simple, economical and spacious?	✘			only build what is needed
	• Clearly intelligible to the user?	✘			should be
	• Easy to supervise?	✘			depends how many staff and cctv systems in place Extensive saturation of CCTV
	• Free of long, narrow corridors that are confusing and institutional in appearance?	✘			needs review as to changing regime We need two separated changing areas - one for small pool one for big pool
	• Safe and secure without having to rely upon CCTV?	✘			cctv will be needed due to remote location vandalism CCTV is critical and a proper alert and response system
	• Accessibility				
	• Is all of the facility fully accessible to all users including:	✘			should be
	• Children?	✘			basic idea
	• Young people?	✘			basic idea
	• Older people?	✘			basic idea
	• All disabled people including wheelchair users?	✘			basic idea
	• Staff?	✘			basic idea
	• Coaches?	✘			basic idea

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4.2	First impressions				
	• Is the entrance area attractive, warm and welcoming?	✘			covered previously
	• Is there adequate signage and lighting?	✘			covered previously
	• Is there sufficient space with a clear orientation for customers?	✘			main stair to mezz only place for parents kids into change no direct access to poolside only emergency
	• Have materials and colours been well considered within an overall image/theme/branding?		✘		ongoing none chosen
	• Entrance area				
	• Does the design provide:				
	• Clear 'in' and 'out' circulation routes?	✘			main stair to mezz only place for parents kids into change no direct access to poolside only emergency
	• A draft lobby to the main entrance doors?	✘			architectural statement glass lobby
	• Automatic entrance doors?	✘			on sensors to lobby if needed not sure we do We will need these main recommendation coming post pandemic
	• A prominently positioned reception desk?		✘		glass hatch to staff room and glazing but no dedicated reception desk proposed
	• A clearly signed and direct circulation route ?	✘			main stair to mezz only place for parents kids into change no direct access to poolside only emergency
	• If not, what needs to be done to address this?			✘	
	• Notice boards and information displays?	✘			walls either side of staff glazed walls
	• Public telephone?		✘		not in 2021 antiquated
	• Reception				
	• Has the following been considered for the reception area:				
	• A fully accessible counter?		✘		private club not needed
	• Providing a sidewall or island reception desk?		✘		private club not needed
	• Visual supervision of the entrance / exit routes / and routes to main facilities?	✘			main door key fob control etc view to car park
	• Restriction of unsupervised access?	✘			main door key fob control etc view to car park
	• Appropriate security barriers / screens?	✘			main door key fob control etc view to car park
	• Suitable artificial lighting?	✘			ok critical design choices
	• Direct access to other parts of the building?	✘			main door key fob control etc view to car park
	• Cash handling secure areas?		✘		private club not needed
	• Adequate ventilation?	✘			ok critical design choices for bio security and Net Zero
	• Appropriate access control?	✘			main door key fob control etc view to car park Should be fully occupant aware building
	• Storage for lost property and items for sale or hire?	✘			staff area near entrance
	• If not, what needs to be done to address this?			✘	
	• Space for CCTV monitors?	✘			staff area near entrance suggest all major walls could be projectable
	• An office with adequate space for staff and storage?	✘			staff area near entrance
	• Does the building layout provide:				
	• Managers office with meeting space?	✘			staff area near entrance
	• General office?	✘			staff area mezz floor
	• Is the office located on an external wall to allow for day lighting and views of the approach to the facility?	✘			staff area near entrance
	• Refreshment areas				
	• Has a refreshment area / social area been located close to the main entrance with views to the pool hall?	✘			mezz area directly upstairs from main entrance
	• When necessary can the swimming pool be screened off to give privacy to users?	✘			smaller trainer pool yes main pool not really
	• Is there proper/sufficient support accommodation:			✘	what does this mean?
	• Storage and servery areas serviced from a nearby delivery point?	✘			servery on mezz access from main stairs store either end of mezz
	• Refuse storage and containment?	✘			bin store in central access belt between buildings
	• Have the following been provided:				
	• Vending machines in a wall recess with easily cleaned, impervious floor finishes?	✘			servery on mezz access from main stairs store either end of mezz
	• Lockable storage space?	✘			in changing plus staff areas

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	• If not, what needs to be done to address this?			✘	servery on mezz access from main stairs store either end of mezz
	• Appropriate seat and table space located adjacent to accessible public toilets?	✘			servery on mezz access from main stairs store either end of mezz
	• Catering facilities which meet current food safety regulations?	✘			servery on mezz access from main stairs store either end of mezz
	• Public toilets				
	• Have the public toilets been designed in accordance with the Accessible Sports Facilities design guidance?	✘			still need full number count to assign dis facilities Wetside we have numbers spectators needs decision
	• Accommodation for children				
	• Have the following been provided:				
	• Pushchair and pram storage space?	✘			area near main entrance to be assigned
	• Baby change facilities?	✘			in main change and public wc provision
	• Child care facilities?		✘		none proposed no creche
4.3	Pool hall structure				
	• Is the overall 'ambience' of the pool hall light and spacious?	✘			should be
	• Is the pool hall height appropriate to the roof profile?	✘			should be
	• Glazing				
	• Does the pool hall have 'top' natural lighting?	✘			roof lights
	• If not, what needs to be done to address this?			✘	
	• Is natural light controlled and orientated to keep solar glare, spectral reflections and heat loss to acceptable levels?	✘			insulated
	• Artificial lighting				
	• Are the light fittings located above the pool surrounds?	✘			led only throughout
	• Can the light fittings be easily maintained?	✘			questionable due to heights Can these be sealed for life units???
	• Do the light fittings give a pleasant atmosphere and avoid glare/specular reflection on the pool surface?	✘			should be
	• Is under water lighting to be provided?	✘			should be
	• Does the lighting comply with CIBSE Lighting Guide 4:	✘			mech consultant to check
	• Sports Lighting?	✘			swimming related
	• Signs	✘			access and exit
	• Has a risk assessment been undertaken to establish appropriate signage?		✘		mech consultant to check
	• Is there adequate signage for:				
	• Safety issues?	✘			swimming related fully integrated angel eye system into wall based projector system
	• Directional information?	✘			access/exit
	• Water depth?	✘			will be
	• Moveable floor signs?	✘			will be
	• Diving/Jumping restrictions?	✘			will be
	• If not, what needs to be done to address this?			✘	
4.4	Pool tanks				
	• Configuration				
	• Is the shallow end of the pool nearest to the changing room entrance?		✘		mainly but not nessesarily for multiple changing both sides
	• Is access from the changing room into the pool arranged through the toilet area, and then through the pre-swim shower area?	✘			locker/wc last through changing with pre-shower pool side
	• Is there full access around the pool perimeter?	✘			yes
	• Are the easy access steps into the pool at appropriate locations for all users (children / older people / disabled people)?	✘			ladders and disabled plug and hoist arangement
	• Is the pool surround free of any projecting or free standing columns that restrict the minimum pool surround width?	✘			yes
	• Is the pool surround free of any sudden changes of level or gradient?	✘			yes
	• Do the staff control points have good overall views of the entire pool hall and underwater areas?	✘			underwater laser monitoring with lifeguard positions sides of pool
	• Has a risk assessment been provided at the design stage for the safe supervision and operation of the pool?		✘		swim clubs to provide D and A statement Once firmied design - thorough risk assessment needs to be carried out
	• Is the first aid room directly accessible from the pool surround?	✘			yes

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	• If not, what needs to be done to address this?			✘	locker/wc last through changing with pre-shower pool side
	• Are the pool and cleaners stores directly accessible from the pool surround?	✘			yes
	• Is there appropriate viewing provision for spectators that does not require direct access via the pool surround?	✘			yes
	• Are the widths of the pool surround in accordance with the Swimming Pool design guidance recommendations?	✘			2.0 min 2.5m proposed for competition standard (sport england)
	• Combining two pool tanks in one hall				
	• If two pools have been combined in one hall, has a separating (eg glass) screen been incorporated? If so, has each pool separate circulation and access to changing rooms?	✘	✘		two halls with glass folding screen cross shallow end of main pool to access trainer pool suggest plastic walkway screen to segregate if needed
	• Privacy for some user groups				
	• Has privacy been considered and user groups been consulted?	✘			looking at changing facilities into smaller accesable rooms
	• Discrete swimming sessions can be easily incorporated into the pool hall at the design stage to meet the needs of specific groups?	✘			
	• Main pool: Competition use				
	• requirements for competitive swimming:				
	• Length / width / depth of pool tank?	✘			main tank 25 x 15.6 (4x2-5+2 x 2.8) trainer 10 x 8 (4 x 2.0) Decision needs to be made on steps and if embedded in wall then each lane is same side - if not what is health and
	• Colour of tank finish?	✘			assumed white or blue? Or Hard Anodized for training tank and counter current flow?? Colours need consideration on competition and life guarding light refraction
	• If not, what needs to be done to address this?				
	• Pool tank profile?		✘		to be decided further along the route
	• Pool edge detail?		✘		to be decided further along the route
	• Raised pool ends?		✘		to be decided further along the route
	• Lane markings?		✘		to be decided further along the route
	• Vertical access steps and ladders?		✘		to be decided further along the route
	• Rest ledges?		✘		to be decided further along the route
	• Under water lighting?		✘		to be decided further along the route
	• Under water windows?		✘		to be decided further along the route
	• Colour?		✘		to be decided further along the route
	• Learner and learner/training pools				
	• Has an integral movable floor been considered to increase program flexibility?	✘			yes to trainer .9 to 1.5 needs input from swim clubs Happy with this in principle - are we going to cater for wheelchair swimmers? Will we consider diving tuition in this pool - if
	• Are the following provided in accordance with ASA requirements:				
	• Length / width / depth of pool tank?		✘		to be decided further along the route
	• Colour of tank finish?		✘		to be decided further along the route
	• Pool tank profile?		✘		to be decided further along the route
	• Pool tank gradient?		✘		to be decided further along the route
	• If not, what needs to be done to address this?		✘		to be decided further along the route
	• Pool tank markings?		✘		to be decided further along the route
	• Access steps and ladders?		✘		to be decided further along the route
	• Pool edge detail?		✘		to be decided further along the route
	• Diving pools				
	• Are the following provided in accordance with FINA/ASA standards:			✘	
	• Diving boards and platforms to cater for diving and synchronised diving?			✘	
	• Length / width / depth of pool tank?			✘	
	• Colour of tank finish?			✘	
	• Pool tank profile?			✘	
	• Pool edge detail?			✘	
	• Ladder and steps?			✘	
	• Rest edges?			✘	
	• Surface agitators?			✘	
	• Bubbler?			✘	

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Page	Requirement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	Observation / Comment / Action
	• Underwater lighting / windows / surveillance?			✘	
	• If not, what needs to be done to address this?			✘	
	• Training harnesses?			✘	
	• Shower and spa pool?			✘	
	• Dry land training area?			✘	
	• Lighting?			✘	
	• Easy access to the water				
	• Are there appropriate facilities for all users to easily get in and out of the water?	✘			st st ladders four corners
	• Portable or demountable hoists?	✘			st st hoist plug and push fit to shallow changing side
	• Permanent ramp?	✘			only outside
	• Easy going walk-in steps?	✘			none proposed
	• Ladders?	✘			st st ladders four corners
	• Submersible pool surround lift?	✘			none proposed
	• Movable floors and bulkheads	✘			only to trainer
	• In the learner pool?	✘			as above
	• In the shallow end of the main pool?	✘			yes
	• In the deep end of the main pool?	✘			yes
	• Are automatically folding steps being provided in the movable floor to allow easy access for ambulant disabled people?	✘			none proposed Needs some thought on raisable floor???
4.5	Changing facilities				
	• What type of changing arrangement is provided:				
	• Open plan single sex?		✘		none proposed but male side and female side currently proposed
	• Village changing with unisex areas with individual changing cubicles?	✘			yes favoured Needs further consideration for multiple concurrent hirers
	• Buffer changing areas?	✘	✘		explain buffer change Extra changing room for increased capacity usually lockable - possible use of BEJSC building ???
	• A appropriate combination of the above?	✘			yes favoured
	• Has consultation taken place with stakeholders and user groups?	✘			ongoing
	• Does the layout give:				
	• Adequate personal space for individuals to change comfortably?	✘			yes favoured
	• Adequate privacy to all user groups?	✘			yes favoured
	• Ample capacity to cope with peak times?	✘			possibly but this is ever changing Needs upper capacity - probably needs us to work up a couple of models such as - Gala - club only use - club use in main tank other user in
	• If not, what needs to be done to address this?			✘	
	• Flexibility for varying ratios of male and female users?		✘		cant change if set figures for male and female
	• Areas that can be closed off for privacy?	✘			yes favoured
	• Can the layout be:				
	• Easily supervised to deter inappropriate behaviour?	✘			open plan apart from low cubicles
	• Easily cleaned and maintained?	✘			central grates flush tiled throughout
	• Does the design include:				
	• Robust fixtures and fittings?	✘			yes favoured
	• Vandal resistant coat hooks and shower heads?	✘			yes favoured
	• Cantilevered benches for easy cleaning?	✘			yes favoured
	• Do the facilities have a suitable general environment:				
	• Natural top lighting to the changing area?		✘		possibly top borrowed light from outside Probably comes down to sun tubes???
	• Bright and warm colours to finishes and lighting?	✘			depends on colour spec chosen Needs a lot of thought
	• Does the general planning give:				
	• A logical sequence from reception to the pool?	✘			signage

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	• Adequate space for the vanity areas?	✘			each changing has vanity areas
	• Appropriate storage for prams, buggies and wheelchairs?	✘			as previous
	• Well screened single sex changing areas and toilet provision?	✘			as previous
	• If not, what needs to be done to address this?			✘	
	• Have numbers for the following been calculated in accordance with the standard calculation methodology:				
	• Total numbers of changing spaces?	✘			25 male 25 female suggest multi changing both sides the same not single sex. Agreed.
	• Cubicles?	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Group change?	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Benches	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Lockers?	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Coat hooks?	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Are lockers for all users located between the changing area and entry to the pool hall?	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Toilets				
	• Are toilets positioned between the changing room and pre-swim showers immediately prior to entry to the pool hall?	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Do the numbers of toilets comply with BS 6465 Part 1?	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Is there adequate toilet provision for disabled people?	✘			25 male 25 female suggest multi changing both sides the same not single sex
	• Showers				
	• Has shower provision been provided in accordance with BS6465 Part 1 Table 1 237 based upon 50% male / female use?	✘			25 male 25 female suggest multi changing both sides the same not single sex Sounds expensive
	• If not, what needs to be done to address this?				
	• Are footbaths and stepped thresholds avoided?	✘			yes
	• Are there adequate falls away from circulation areas?	✘			yes
	• Are there a number of fully enclosed showers for post swim showering?	✘			yes
	• Is there a drop down shower seat in at least one of the main shower areas for disabled people of both sexes?	✘			yes
	• Vanity areas				
	• Has vanity area provision been provided in accordance with BS 6465 Part 1?	✘			25 male 25 female suggest multi changing both sides the same not single sex
4.6	Ancillary accommodation				
	• Has the following been provided:				
	• Office accommodation?	✘			reception area and mezz area
	• Staffroom and changing including provision for disabled people?	✘			yes
	• Cleaners store?	✘			yes as before
	• External service yard?	✘			yes as before
	• First aid room (directly accessible from the poolside and with external access to a parking area for emergency vehicles)?	✘			yes as before
	• If not, what needs to be done to address this?				
	• Pool equipment store				
	• Is the store directly accessible from the poolside?	✘			yes as before
	• Does it have sufficient space to store:				
	• Swimming aids?	✘			yes
	• Lane lines including storage reels?	✘			yes
	• Starting blocks and competition timing equipment?	✘			yes Can we make this permanent. Can we use walls of pools for projection of timing???
	• Removable steps and mobile equipment for disabled people?	✘			yes Can we not handle this at design stage???
	• Water polo equipment?	✘			yes
	• and other specialist pool equipment?	✘			yes
	• Water play equipment?	✘			yes
	• Pool cleaning equipment?	✘			yes

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	• Is there a hose down point located either in the pool store or securable on pool side?	✘			yes
4.7	Fixtures and fittings				
	• Are the fixtures and fittings of a good quality and adequate for the usage/programmes to be followed in the pool(s)?	✘			yes
	• If not, what needs to be done to address this?				
4.8	Spectator and competitor provision				
	• Do the pool(s) include appropriate provision of the following:				
	• viewing areas?	✘			yes mezz area
	• circulation spaces?	✘			yes mezz area
	• social areas?		✘		no private pool
	• Formal spectator seating?	✘			yes mezz area
	• Space on the pool surround for competitors seating during competition?	✘			yes foldout seats pool perimeter
	• Has the ASA been consulted in respect of:				
	• The level of competition appropriate for the pool(s)?		✘		ongoing swim club involvement
	• The appropriate numbers of formal and pool side seating?		✘		ongoing swim club involvement
	• Does the spectator seating sight line geometry provide good views of the pool water and scoreboard?		✘		ongoing swim club involvement
	• Does the seating design meet the requirements of:				
	• The Guide to Safety at Sports Grounds - ('Green Guide')?		✘		needs further investigation
	• BS EN 13200 Part 1?		✘		needs further investigation
	• BS 5588 Part 6?		✘		needs further investigation
	• Has wheelchair provision been provided?	✘			yes lift plus zone on mezz area for spectators
	• If not, what needs to be done to address this?				
	• Can the viewing be closed off to give privacy to swimmers during some sessions?	✘			yes fbottom of main stair but mainly access control
	• Has environmental control of the seating areas been considered?		✘		needs further investigation
	• If not, what needs to be done to address this?				needs further investigation
5.0	Servicing the building				
	• Are the individual building and pool services systems adequate / meet current standards / efficient / easily maintained:				
	• Pool water treatment system(s)?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Pool water temperatures?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Water filters?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Circulation pumps?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Chemical dosing equipment?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Heating system(s)?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Pool water?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Building and domestic water supply?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Energy/resource recovery equipment?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Heat exchangers?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• CHP Plant?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Water re-use?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Modern and efficient air handling plant?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• If not, what needs to be done to address this?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Heating and air conditioning the pool hall and associated spaces?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Electrical distribution equipment and installation?		✘		needs design spec from specialists. Consultation with Myrtha Pools should assist with this - Proposed system is air source heating, PV panels for electric & UV pool water
	• Moveable pool floor or bulkhead?		✘		fixed foors in both pools.
	• Are changing areas ventilated or cooled?		✘		Cooled.

Project Thunderbirds - Pool Design Considerations



Page	Requirement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A	Observation / Comment / Action
	• Is the swimming pool atmosphere contained within the pool hall? (With differential air pressures?)		✘		needs design spec from users. Consultation with Myrtha Pools should assist with this?
	• Is additional ventilation and cooling provided to spectator areas?		✘		needs design spec from users. Consultation with Myrtha Pools should assist with this?
	• Plant room				
	• Are plant rooms suitably laid out and sized, taking into account advice from the Service Engineer?		✘		needs design spec from users Neil Bailey Swimming will provide specialist advice
	• Do plant rooms allow adequate space for staff access, servicing & maintenance and replacement of equipment?		✘		needs design spec from users Neil Bailey Swimming will provide specialist advice
	• If not, what needs to be done to address this?		✘		needs design spec from users Neil Bailey Swimming will provide specialist advice
6.0	Constructing the Building				
	• General construction of the building				
	• Has the building fabric been designed to withstand a warm humid and aggressive internal environment and cold winter external conditions?	✘			Use of modular 'passivehaus' build approach
	• lifecycle issues been addressed in the choice of construction and materials?	✘			Use of 'passivehaus' build approach
	• Pool tanks				
	• Are the pool tanks details appropriate for the intended use?	✘			See Myrtha Pool designs
	• Waterproofing elements	✘			See Myrtha Pool designs
	• Internal pool surfaces?	✘			See Myrtha Pool designs
	• Pool edge details?	✘			See Myrtha Pool designs
	• Drainage from pool surround?	✘			See Myrtha Pool designs
	• Floor finishes				
	• Do the finishes to wet areas have:				
	• Appropriate falls that avoid water ponding or safety hazards?	✘			yes
	• Adequate slip resistances?	✘			yes depends on tile spec YES critical
	• If not, what needs to be done to address this?				
	• Good long term appearance?	✘			yes depends on tile spec
	• Easily cleaned surface?	✘			yes depends on tile spec
	• Roof structure				
	• Does the roof construction / ceiling finish provide appropriate levels of:				
	• Insulation?	✘			yes depends on roof spec
	• Sound absorption?	✘			yes depends on insulation spec
	• In addition, does it:				
	• Prevent interstitial condensation?	✘			yes depends on insulation spec
	• Avoid impact upon the pool water colour?	✘			yes depends on insulation spec
	• Withstand ball impact?	✘			yes depends on insulation spec
	• Reflect and spread light?	✘			yes depends on insulation spec
	• Is the roof's life to first maintenance period established and is it appropriate to the life of the building?	✘			yes depends on insulation spec
	• External Walls structures				
	• Do the external walls provide:				
	• Insulation / interstitial condensation resistance?	✘			yes depends on wall spec
	• If not, what needs to be done to address this?				
	• Withstanding damage from vandalism?	✘			yes depends on wall spec
	• Attractive, durable and low maintenance finish?	✘			yes depends on wall spec
	• Provision for structural movement?	✘			yes depends on wall spec
	• Resistance to the pool environment?	✘			not next to pool overall build up spec
	• Glazing				
	• Are curtain walling / windows double or triple glazed?	✘			assumed circa double thermally broken 1.4w/m ² u value rated min ior better
	• Is insulating glass used to meet current thermal regulations?	✘			could be to improve the overall u value of the glazing assume as above at 1.4 or better

Project Thunderbirds - Pool Design Considerations



Page	Requirement	☑	☒	N/A	Observation / Comment / Action
	• Is all glazing adjacent to pool surrounds, including glass balustrades able to resist all loads, including full body and ball impact (refer to BS6262 and	✘			yes depends on curtain wall spec spec
	• Has the glass been toughened and laminated for maximum strength and safety in all pool areas?	✘			yes depends on curtain wall spec spec
	• Is the glass framing system of an appropriate material quality for a pool environment e.g. powder coated aluminium?	✘			yes depends on curtain wall spec spec
	• For rooflights, have the following been considered when specifying a proprietary system:				
	• Span potential and effect of lateral or compressive loads on stressed systems?	✘			yes depends on rooflight spec suggest velux as a starting point spec
	• Resistance to corrosion?	✘			yes depends on rooflight spec suggest velux as a starting point spec
	• Control of condensation through framework (thermal bridging)?	✘			yes depends on rooflight spec suggest velux as a starting point spec
	• If not, what needs to be done to address this?				
	• For curtain walling, has the following been considered when specifying a proprietary system:				
	• Secondary support structures corrosion protection?	✘			hoping to be able to run glulam beams
	• Isolation of dissimilar materials to minimize risk of galvanic action causing corrosion?	✘			copper to lead avoided steel will be treated for atmosphere
	• Breaks to minimise the interstitial condensation?	✘			thermal breaks to all ext connections
	• Internal Walls				
	• Has the wall construction been designed specifically for pool facilities?	✘			probably solid block walls with dpc additional and altro or tiled skirtings
	• Have studwork walls been avoided, and if unavoidable have they been designed to contain and resist the pool environment?	✘			avoiding studs for pool hall locations only
	• Moveable floors and bulkheads	✘			none anticipated
	• Are any handrails and barrier rails incorporated as required?	✘			viewing area st st and toughened glass
	• Fixed pool equipment				
	• If the pool is to be used for competition use, have all the competition requirements been allowed for?	✘			pool user to deal with this as spec
	• If not, what needs to be done to address this?				
	• Do all stainless steel fittings have the correct grade and surface finish?	✘			should be 706 food grade
	• Stainless steel in the pool environment				
	• Has the use of bare exposed stainless steel been minimised and limited to locations that are either regularly washed down by the pool, or can be easily and regularly cleaned?	✘			yes
	• Where the stainless steel is out of reach have surface applied finishes been selected instead?	✘			none envisaged
	• Doors and frames				
	• Have water proof doors and frames been specified for wet areas?	✘			will be part of a package
	• Acoustics				
	• Does the roof and upper wall construction provide acoustic absorption?	✘			should do Assumption is that active sound suppressor for white noise is implemented
	• Can a reverberation time of the pool hall(s) less than 2 seconds at 500Hz be achieved?	✘			will need acoustic consultant and testing to achieve this
	• If not, what needs to be done to address this?	✘	✘		will need acoustic consultant and testing to achieve this
	• Can fire alarms / public address systems / evacuation messages be easily heard throughout the building?	✘			should do
	• Are noise ratings from areas such as plant rooms less than NR50?	✘			should be
	• Has the building envelope been designed to control noise break out?	✘			should be
	• If not, what needs to be done to address this?	✘	✘		will need acoustic consultant and testing to achieve this
7.0	Operating the Building				
	• Does the design allow:				
	• The reception to be the hub of both normal and emergency communications?	✘			reception office control centre for all elements
	• Staff supervision to be organized in convenient zones?	✘			should be
	• Safe demarcation of the deep water in the pool?	✘			should be
	• Easy access and maintenance of overhead lighting?	✘			needs further investigation due to heights
	• Convenient delivery of water treatment chemicals?	✘			central access zone between buildings proposed
	• Have the following aspects been developed taking into account the needs of the pool operators:				
	• Entrance Control?	✘			as before key fob and lockable front entry

Project Thunderbirds - Pool Design Considerations



Page	Requirement	☑	☒	N/A	Observation / Comment / Action
•	Ceramic Tiling (slip resistance)?	✘			done on tile spec Are we using tiles????
•	Showers?	✘			WhiteRoc walls / Altro flooring
•	Washing down?	✘			done on bthroom spec
•	Drainage channels?	✘			done on bthroom spec
•	Stainless steel?	✘			done on tile spec
•	If not, what needs to be done to address this?				