INTRODUCTION

This guide provides a checklist of standards for the design and construction of RFU compliant changing rooms and clubhouses for a new facility, extension to your existing clubhouse or refurbishment of your existing facilities. It is intended as a guide and should assist both your project steering group and appointed consultants when undertaking the feasibility study, scheme development and any applications to the RFU Capital Investment Programme or Rugby Football Foundation.

STAGE 1: PROJECT BRIEF

It is recommended that your project steering group, prior to commencing the proposed design and the selection and appointment of any professional team, assemble the following information:

- a site plan that shows the extent and scope of your land ownership, legal agreements, covenants, way-leaves and rights of way, etc
- existing buildings, mains services and pitch layouts, local knowledge of ground conditions and site factors
- grounds maintenance arrangements
- existing and future programme of use, including age and sex of players, i.e. senior male, senior female, junior male, junior female
- car parking requirements
- access and usage by people/players with disabilities (the RFU’s Guidance Notes for Clubs on Accessible Facilities & Compliance with the DDA)
- initial outline and schedule of proposed accommodation for changing rooms and support accommodation
- other sports uses and events on the site.

This is of particular relevance if your club caters for a number of different sports that operate in different seasons or take place indoors

- details of any initial consultations with the Local Planning Authority, other agencies and organisations
- funding sources and initial capital.

Carefully consider the options in whether to build new facilities or refurbish/extend existing buildings. When related to the cost of carrying out a refurbishment project, Sport England advises that, where refurbishment project costs are in excess of 70% of a replacement building, they should be not considered of sufficient value for money in the long term.


STAGE 2: APPOINTING CONSULTANTS

The selection and appointment of your professional team is an important process and the RFU would recommend you refer to the Sport England/CABE document; Better Places for Sport, a client guide to achieving design. The guide is located on the RFU’s Community Rugby website and provides a best practice guide on preparation, design, construction and use.

For design quality, the architect or designer is the most important choice. The Royal Institute of British Architects (RIBA) Client Advisory Service can supply names of suitable designers. The RFU would also recommend the appointment of a Construction & Design Manager and or Independent Building Control Advisor to the project and that the club ensures that all contractors carry suitable Professional Indemnity Insurance.
STAGE 3:
FEASIBILITY STUDY

Each site will vary and have specific site factors that will influence design solutions and project details. Your feasibility study is a crucial and necessary process that will enable your project steering group and professional team to make informed decisions and submit to the RFU/Rugby Football Foundation a considered and well designed project. The feasibility study should cover such areas as:

Site and buildings
• Access, car parking and emergency vehicle access (please refer to Sport England Guide on Car Park and Landscape Design)
• Site boundaries and adjoining owners, including use
• Topography (levels, trees and special features)
• Existing mains services, loading and capacity
• Orientation, view of pitches and exposure to wind and weather
• Site locations (alternatives)
• Geotechnical investigation (ground conditions)
• Town planning issues including land designations, Unitary Development Plan and Local Plan
• Audit of existing buildings and facilities including general conditions
• Access for people with disabilities
• Existing accommodation, including plans, sections and elevations
• Safety and security
• Grounds maintenance.

Your team/appointed consultants will be able to develop the initial brief into an architectural brief and schedule of accommodation with actual room sizes and performance standards. This schedule will also enable a footprinting and options appraisal to be carried out. The range and numbers of pitches should be taken account of in relation to the number of changing rooms, showers and toilet arrangements that will be required, together with the types of usage, i.e. male/female, age and peak demand, and provision of officials’ changing and first aid/treatment rooms.

 Longer term developments and extensions should also be considered. Your sports development plan may anticipate a future increase in players and types of users. Space for additional changing rooms and social accommodation should be allowed for.

ORIENTATION
(DIAGRAM 1)

Ideally, any entrances to the pavilion should be oriented away from the direction of the prevailing wind. However, to permit comfortable viewing of the principal pitch from the pavilion, the building should not face the setting sun. Club room glazing provided for viewing pitches must be carefully specified and detailed to combat glare; roof overhangs or screening may be required. Consider carefully the use of safety glazing.

Diagram 1
LOCATION  
(DIAGRAM 2)

Clubhouse and changing room development needs to be considered in the context of the site as a whole. The shape and contours of the available site will obviously influence the location of a pavilion. However, in most instances, the proximity of an existing access road and/or the necessary main services will be of prime importance if unnecessary and expensive site development costs are to be avoided. It is essential that the site should provide:

- sufficient space for the proposed pavilion as well as space for future expansion
- adequate car parking provision, including the potential for overspill parking
- access for service and emergency vehicles, service deliveries, maintenance vehicles and equipment
- a reasonable relationship with the sports spaces it will serve
- number of pitches should be in relation to the number of changing rooms, showers and toilet arrangements.

OPTIONS/FOOTPRINTING  
(DIAGRAM 3)

The development of the project brief into a schedule of accommodation with proposed sizes will enable your consultants to carry out an options appraisal that includes critical site factors, possible locations and spatial requirements related to the available land.

Each option should be considered and the advantages and disadvantages clearly shown and commented upon. Future developments should also be shown. This exercise should lead to an agreed option being identified which can then be developed more fully with plans, sections and elevations so that the proposals are fully understood by your steering group. (Diagram 3 demonstrates footprinting options.)
Careful planning of the accommodation is essential to ensure a successful scheme and special consideration should be given to the following points:

- Include an entrance lobby for even the smallest pavilion; never enter directly into a corridor
- Separation of changing and wet and muddy areas from any social or indoor sports accommodation
- Provide planning flexibility to respond to different levels of male/female use
- Plan for simple, straightforward circulation routes
- Ensure access for disabled users; include a lift to upper level social or club accommodation
- Plan for convenient access to pitches and satisfactory viewing of the principal playing areas
- Never plan grass pitch changing rooms with stair access at first floor level
- Provide well considered entrances and lobbies and make provision for boot cleaning
- A flexible social and catering layout
- If it is proposed to have a licensed bar area, consultations and requirements for this should be addressed at an early stage. Security and protection of your buildings when unoccupied has to be considered and reflected in the design solutions and construction details
- Break-ins through windows and doors are a common occurrence and easy access routes to roofs should be avoided. Good external lighting, security systems and CCTV installations will greatly help to protect your building.

Each option should be considered and the advantages and disadvantages clearly shown and commented upon. Future developments should also be shown. This exercise should lead to an agreed option being identified.
which can then be developed more fully with plans, sections and elevations so that the proposals are fully understood by your steering group (Diagram 4 illustrates some of the spatial relationships of a clubhouse.)

Disability
Access and usage by people with disabilities need to meet the Disability Discrimination Act 1995 and the Disabled Rights Commission Code of Practice. For further information in this area, refer to the RFU Guidance Note for Clubs on Accessible Facilities and Compliance with DDA or Sport England’s Access for Disabled People Guidance Note. The RFU recommends that baby changing units are installed within disabled lavatories.

Child protection and equity
In line with its Policies and Procedures for the Welfare of Young People in Rugby Union and Equity Policy, the RFU recommends that all new build projects or extensions provide changing rooms with en-suite showers and toilets. Any club wishing to deviate from this recommendation needs to enforce suitable risk management procedures in line with the club’s own child protection policy. Clubs’ seeking to refurbish existing changing rooms should show due diligence in applying best practice to design or programming solutions for communal facilities in addressing the site’s own child protection and equity policies.

CHANGING ROOMS - RECOMMENDED STANDARDS
(DIAGRAM 5)
Changing room designs and layouts should follow these minimum standards which are acceptable to the RFU when assessing facility provision and plan layouts for capital build projects. However, it does not exclude the RFU from requiring the provision of other facilities nor from commenting on all aspects of the clubhouse project submitted for the approval of the RFU.

- Corridors serving the changing rooms should have a width of 1200-1800mm in line with DDA requirements and should also be appropriate to the usage of the site

- When calculating changing room space, allow for 1.1m² minimum per player including a mandatory bench space of 650mm width x 400mm bench depth. This refers to the overall changing room space and must not include the en-suite facilities (lavatories, showers, drying area) nor any space deemed to be common circulation. Diagram 5 demonstrates this space

- Layouts must provide flexibility for different proportions of male/female use

- All changing areas should be fitted with sight screens to deny views in

- If clothes storage lockers are included with changing, the recommended areas must be increased to accommodate the space taken up by the lockers

- Wheelchair access for parents or coaches should be considered by all clubs when designing their facility. If the site provides sports facilities for wheelchair users such as hard court areas, sports halls or artificial turf pitches, it may be appropriate that the design complies with Sport England Access for Disabled People Guide

- When developing designs and specifications for sports pavilions, whether new-build or improvement
works, account must be taken on a proportionate basis of the needs of players, staff and visitors from ethnic or minority groups in the catchment area of the facility. Examples include enhanced levels of changing privacy, and particular hygiene requirements in toilets.

- The design of the self-contained change/shower/toilet unit, as currently recommended by Sport England for people with disabilities, may also serve to meet the requirements of a range of user groups.

### SHOWERS

#### (DIAGRAM 6)

- Each changing unit requires its own showers located as far as possible from changing entrances and WCs to minimise water migration and to separate mud and moisture.
- All en-suite changing accommodation should follow the shower, toilet, wash hand basin ratios outlined in Table 1 below.
- Allow a minimum of one shower point per four players.
- Shower outlets must be at minimum of 750mm intervals, with a minimum of 450mm between end fittings and side walls. Fittings carried around an internal corner must maintain these minimum standards.
- Showers on opposing walls should be spaced 2.3m apart to permit a central circulation route and will require a separate dry-off area to one end.
- Drying areas should be 0.85m² per shower head.
- Disabled access to showers should be based on the site’s user profile. If disabled performers are an identified user, at least one drop down seat and appropriate grab rail should be incorporated into one shower space. The seat must fold up out of the way when not required.
- Further information on dedicated disabled shower units can be found in Sport England’s Access for Disabled People Guide.

#### Table 1 - En-suite changing room provision

<table>
<thead>
<tr>
<th>Player numbers</th>
<th>WC's</th>
<th>Basins</th>
<th>Showers</th>
<th>Standard</th>
<th>Bench space</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/16</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>Minimum</td>
<td></td>
</tr>
<tr>
<td>17/18</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>Minimum</td>
<td></td>
</tr>
<tr>
<td>17/18</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>Recommended</td>
<td></td>
</tr>
<tr>
<td>19/20</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>Minimum</td>
<td></td>
</tr>
<tr>
<td>21/22</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>Minimum</td>
<td></td>
</tr>
<tr>
<td>21/22</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>Recommended</td>
<td>650mm x 400mm</td>
</tr>
<tr>
<td>23/24</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>Minimum</td>
<td></td>
</tr>
</tbody>
</table>
TOILETS

Each en-suite changing room should be equipped with toilet to players ratios as outlined in Table 1 - En-suite changing room provision.

The RFU will only consider communal facilities for existing facility upgrade and refurbishment. For new build and extensions, en-suite facilities are the minimum requirement. Please refer to Table 2 above for RFU minimum criteria for communal facilities.

- Wash hand basins and urinal bowls must be a minimum of 700mm centres
- If urinal trays are preferred, allow for a minimum width of 700mm per person.

OFFICIALS’ CHANGING

(DIAGRAM 7)

- The facilities should include a minimum of one self-contained changing room for use by officials
- On new-builds or extensions, the RFU would also recommend a second self-contained officials’ changing room to allow for both male and female usage
- Within a refurbished scheme, the club should make suitable provision to meet its own equity policy when applied to match officials. This room can double up as a first aid room or treatment room on non-match days
- There should be space for a minimum of 1.1m² clear floor space per person
- There must be changing space for three match officials providing a minimum of 0.85m² clear floor area per person
- There must be one WC, one wash hand basin and one shower outlet with a dedicated immediately adjacent drying space of at least 0.85m².

CLEANERS’ STORE

A lockable cupboard for cleaning materials is the minimum provision required. For multi-team pavilions, provide a store with shelving and a bucket sink adjacent to the changing rooms.
CLUB ROOM  
(DIAGRAM 8)

The club room should have large windows for viewing the principal activity. Consider the range of potential uses that the club room could accommodate. Provide a store for furniture, so that part of the floor can be cleared for dancing, and allow space for any sports equipment.

BUILDING EXTERIOR

• A vandal-resistant design is invariably required, with limited openings and careful detailing. The degree of protection will be determined by location and the need to design in keeping with the surroundings.

• Pitched roofs are less vulnerable to illicit access. Profiled aluminium/coated steel is preferred to resist breakage and vandalism, but if the roof is slated or tiled a plywood underlay makes a break-in more difficult.

• Roof overhangs make access more difficult in single-storey buildings and give protection to people and wall finishes.

• Windows in changing rooms should generally be avoided. Roof lights to both changing rooms and corridors are more secure and can produce a lighter, more airy environment, but they should be fitted with internal grilles.
• Wall finishes should be selected with the problem of graffiti in mind. Detailing should not assist vertical access. Rainwater downpipes and their fixings should therefore be specified with care.
• On some sites, it will be inadvisable to include open porches or other places of potential concealment.
• Window frames must be in hardwood, aluminium, galvanised steel or UPVC to reduce maintenance.
• External doors should be limited in number and of robust specification. Where there is central internal circulation, avoid individual field exits from changing rooms, which increase floor area and decrease security.
• Door and veranda thresholds must be ramped for wheelchair access. The number of door openings should be restricted and door leaves and ironmongery should be of a high specification.
• Consider roller shutters to windows in all locations prone to vandalism.
• Consult with the local police crime advisor during development of clubhouses, particularly in risky areas or locations.

EXTERNAL WORKS

• Provide non-slip, well-drained surfaces in the vicinity of the building. Avoid the use of light coloured pavings to terraces - they can cause distracting glare.
• Disabled parking bays should be as close as possible to the entrance and have ramped curbs.
• Coach as well as car parking will usually be required and service vehicle access and turning must also be considered.
• Synthetic-surfaced playing areas require paved access to the pavilion, routed to deter use by grass pitch players.

• Good lighting levels are an essential safety feature around the building and the car park.
• Boot scrapers outside the changing entrance encourage boot cleaning and removal, especially if under cover.
• Buildings always look better when proper attention has been paid to their immediate surroundings.

BUILDING INTERIOR FLOORS

• Concrete floor construction is required for all ground floors either power-floated or screeded, or screeded pre-cast planks.
• In changing rooms and showers, floor finishes must be flush and have durable, non-slip surfaces.
• Shower dry-off zones and changing rooms should be laid to fall towards the shower floor, which in turn, should fall to a drainage channel with a continuous lift out grille.
• The main entrance and changing entrances require footwells of at least 1.2m length, with mats for both scraping and drying.
• Floors outside the changing areas, especially in rooms at an upper level, can have less durable finishes and carpet is often preferred in these social spaces.
• Club, weights or fitness rooms that are adjacent to changing could have heavier use and need to be specified with care.

WALLS

• Internal walls must be strong enough to withstand impact and to support coat peg rails and possibly kit bag racking and canti-levered benching. Brick, dense concrete block and modular concrete panels are suitable materials.
• Robust timber framing can provide quick and economic construction but must be carefully specified and detailed with particular attention to moisture protection. Wooden skirting should be avoided in changing rooms and corridors.

• Always raise stud-frame sole plates above slab level on a concrete curb.

• Partition lining should be plywood or glass fibre reinforced plasterboard. If plasterboard is used as a finish, it must be backed with plywood. Marine grade plywood is essential behind shower tiling.

• Walls to showers must be finished with ceramic tiles from floor to ceiling. If walls continue upwards to meet a pitched roof, tiles can be stopped at door height.

• Doors should be of solid core construction with good quality ironmongery and protected with kick plates.

COAT HOOKS

• Coat hooks should be mounted over benches and in shower dry-off areas. Provide two snub pattern hooks for each shower or bench space.

MIRRORS, NOTICE BOARDS, ETC

• Fix mirrors in each changing unit.

• Wipe boards to be fitted in home and first team changing rooms.

• Provide notice boards in the entrance area.

• Unisex changing rooms should provide a vanity area with shelf and hairdryer option.

HEATING

• Radiators or heaters should be sited beneath benches or in locations that prevent damage or burns.

• The heating should be controlled centrally with a time clock but with tamper-proof local thermostats to give a degree of limited local control and sensitivity. Frost protection must always be considered.

• Larger pavilions will have a boiler or plant room which should be located for ease of service vehicle access.

• The type of heat source is dependent on the fuel available and pattern of use.

• Electric convector heaters are cheap to install and easy to control with thermostats and time clocks, but they do have high running costs and are generally of lightweight construction and rot and deteriorate rapidly. If they are used, they must be carefully selected and specified.

• For pavilions/changing areas with continuous use, underfloor heating using off-peak electricity and buried cables, or a water-based system with a gas boiler.
will provide lifelong low maintenance and comfort, but both systems are more expensive to install.

- Gas or oil-fired water-based central heating systems are likely to be the most appropriate for most pavilions.
- Temperatures need to be: changing areas 20-22°; toilets and other areas 18-20°.
- Provide background heating to give frost protection in cold weather.
- Electric heaters must be robust and located for protection, for example beneath benches.

**VENTILATION**

- Provide for efficient cross-ventilation throughout the building by fitting air bricks, grilles and/or trickle ventilators in external walls. Undercut internal doors or fit robust transfer grilles for ventilation when the building is locked up.
- Fit mechanical extracts to changing area toilets, kitchens and shower areas.
- All fans should be fitted with humidistats and over-run switches and provide eight air changes per hour.

Good design of the heating and ventilation systems is important, not only to provide a comfortable environment but also to ensure that the problems of condensation and mould growth are avoided. Due to the nature and type of use, changing rooms create conditions that are ideal for these problems.

**INSULATION**

- Consider the provision of insulation above Building Regulations standards and other associated regulations.

**LIGHTING**

- Light fittings should be fixed directly to the wall or ceiling and be of robust, moisture-resistant design. Avoid cutting through ceiling vapour barriers.
- Consider the use of presence detectors throughout.
- Provide 100-150 lux minimum throughout the changing block, with switching from a central, secure location.
- Consider the need for external lighting linked to time clocks or sensors.

**POWER**

- Provide an electrical intake and meter cupboard, even for the smallest pavilion.
- Fit elevated, guarded power sockets for cleaning equipment throughout the changing areas.
- A corridor location is preferable and the circuit should be protected with a residual current circuit breaker.

**OTHER ELECTRICAL SERVICES**

- Include a telephone in all but the smallest pavilions.
- Consider an electronic security system and contact the local Crime Prevention Officer for advice.

**WATER SERVICES**

- Wherever possible, pipework should be concealed in well-detailed, accessible ducts to reduce vandalism and to improve its appearance.
- Insulate all pipework and run beneath roof/ceiling insulation for extra protection and ease of maintenance.
• In ‘all-electric’ pavilions, consider a central, multi-point heater in preference to individual shower or basin heaters with limited output.

• Hot water storage is wasteful except where there is continuity of use, for example in educational establishments.

• Cold water storage, if required, should be in an insulated tank above a shower or other drained area with a frost-protection heater.

• If a drinks vending machine is fitted, it will require a mains water supply.

• Use thermostatic mixing valves to control the flow and temperature of any stored water.

• Fit cylinders with centrally-located 7-day, 24-hour time switches.

• Provide bib-cocks in shower areas to allow hosing down.

SANITARY FITTINGS

Sanitary fittings must be specified with care:

• ‘Back to wall’ WCs assist with cleaning.

• Individual wall-hung basins are easier to maintain than a vanity top with inset basins. Note that it is essential that the basin mounting bracket is fitted with a substantial fixing.

• Stainless steel fittings are appropriate for some locations.

• Air-admittance valves, correctly installed, should be used in preference to roof vent terminals to avoid having to break through the roof finish.

SUSTAINABLE DESIGN AND CONSTRUCTION

Everyone involved in the design, procurement or operation of any project should consider its sustainability, taking full account of all economic, social, environmental issues, design and specification standards. Your Local Authority Planning Department may require clear statements and information on this topic. Further information on this subject is provided through the Sport England Environmental Sustainability Design Guidance Note.

CAPITAL COSTS

RFU/RFF application requirements allow for estimated costs prepared by your professional team and these should include the following:

• Scheme drawings.

• Performance standards and specifications.

• Buildings and external work.

• Professional fees and statutory charges.

• Projected costs.

• VAT.

• Exclusions.

• Procurement method outline programme with key dates and cash flow information for the business plan.

As a guide, the average cost for changing room and clubhouse construction stands at £1,450 per square metre on a national average as recorded by BCIS on 19/03/08.

PROCUREMENT ROUTES

There are three main methods of procuring buildings in England:

TRADITIONAL is where design and construction are separate elements. A design team prepares design and construction information. Several contractors (usually three) are invited to tender and one is
appended to build the project. Quality control is the key strength of this method.

**DESIGN AND BUILD** entails a more integrated approach as the contractors tender before the construction information is complete and so become involved during the design and preparation stages. The contractor is responsible for developing the design so cost control is the key strength but this can be at the expense of quality. The parallel working can save time.

**CONSTRUCTION MANAGEMENT** is when either client or contractor assumes a central management role and responsibility.

The most appropriate method will depend on the nature and scope of works, how the risks are allocated, design responsibility, coordination and the basis of costs. The final choice could also be influenced by the funding body.

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**STAGE 4: APPLICATION CHECKLIST**

In addition to completed application forms, an application should include:

- Feasibility study/architectural brief.
- Performance standards and specifications (mechanical and engineering).
- Planning permission.
- Design drawings - plans, sections and elevations (where appropriate) at scale 1:100.
- Detailed professional budget estimate or three detailed competitive tenders.
- Confirmation and details regarding provision and access for people with disabilities.

Should you have any queries on this Guidance Note, or anything on the wider work of the RFU, please do not hesitate to contact us at:

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CONTACTS AND REFERENCES

SPORT

Sport England
Regional offices for East, East Midlands, London, North East, North West, South East, South West, West Midlands and Yorkshire can be contacted through the Sport England website
W: www.sportengland.org

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25 Soho Square, London W1D 4FF
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F: 020 7287 0459
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W: www.footballfoundation.org.uk

GOVERNMENT

Commission for Architecture and the Built Environment (CABE)
The Tower Building, 11 York Road, London SE1 7NX
T: 020 7960 2400
F: 020 7960 2444
E: enquiries@cabe.org.uk
W: www.cabe.org.uk

PROFESSIONAL BODIES

The Royal Institute of British Architects (Client’s Advisory Service)
T: 020 7307 3700
E: cs@inst.riba.org
W: www.architecture.com

The Royal Institution of Chartered Surveyors
T: 020 7222 6557
W: www.rics.org.uk

The Chartered Institute of Building Services
T: 020 8675 5211

The Institution of Planning Supervisors
T: 0131 221 9959

The Landscape Institute
T: 020 7738 9166

The Sports and Play Construction Association
T: 024 7641 6316
E: info@sapca.org.uk
W: www.sapca.org.uk

DISABILITY

Centre for Accessible Environments
Nutmeg House, 60 Gainsford Street, London SE1 2NY
T: 020 7357 8182
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W: www.cae.org.uk

Disability Rights Commission
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W: www.drc-gb.org/drc/default

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