

Building Schools for the Future



Knowsley BSF

**Exemplar Studies for the
Provision of Eight new Learning
Centres**

Collated by Gleeds with
contributions from:

Knowsley Council Blueprint Group

Bryanston Square

Hickton Madeley Architects

September 2005

Building Schools for the Future



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Section One - Introduction

The text in the first part of this introduction is also reproduced in Volume One of the Output Specification (OS) document. The wider context and objectives for the BSF programme are also identified in the OS document and should be read in conjunction with this study. In order to avoid duplication they are not repeated here, although it is essential to understand them in order to appreciate the context of this study documented in this report.

Context

The Knowsley project involves, questioning, challenging and overturning the traditional ways in which education has hitherto been delivered. The Authority recognised that its transformational vision required a different approach to building design. It was only natural therefore, that the process and methodologies traditionally employed to procure educational buildings were similarly questioned.

The Authority undertook a considerable amount of research into the variety of ways that Learning would take place in the new Centres. It became very apparent that design by reference alone to BB98 accommodation standards and templates would not necessarily cater for the variety of exciting new environments that would be required to deliver personalised learning to secondary age students and to cater for the learning needs of the wider community. In a similar way the “usual PFI School Facilities Management Solution” appeared incapable of meeting the needs of a community facility open perhaps up to 16 hours a day seven days a week, all weeks of the year.

Recognising that the PFI procurement process can offer relatively little design time, the authority commissioned several pieces of work in order to articulate their Vision. This included the creation of exemplar templates which studied:

- The design and layout of spaces and the functions that are accommodated within them.
- The timetabling of a curriculum based on personalised learning
- The servicing requirements of the accommodation.

These were in turn tested financially to verify that the resultant scope set out in the area schedules and data sheets were affordable.

The intention of the exemplar templates is not to provide bidders with a ready made design solution. The Authority would encourage and expect bidders to view this work in the confidence that these concepts are achievable, both practically and financially. It is hoped that bidders will find this work of benefit in defining and clarifying the brief and scope of the accommodation requirements. As a result it is hoped that the bid period can be used productively to enhance, innovate and improve upon the ideas and concepts developed by the Authority.

Methodology

The scoping and brief preparation process followed the following methodology:

- Research and development by Knowsley Council's Blueprint Group.
- Definition of pedagogy / functions in spaces.
- Understand usage patterns.
- Develop concepts applying to spaces.
- Develop exemplar designs of different types of spaces to test feasibility
- Define number and sizes in an accommodation schedule.
- Check pedagogy and timetable can be incorporated within schedule of spaces.
- Develop an exemplar layout to ensure spaces can be designed within the overall schedule.
- Undertake cost check to ensure types and numbers of spaces can be accommodated within the scheme budget.
- Design a facilities solution suitable for usage patterns

Section One - Introduction

- Check facilities solution against budget.
- Prepare Output Specification.

The subsequent sections of this report document the outputs from this process which have not directly been incorporated in the PFS template Output Specification report.

Section Two – Definition of Function

The first part of the methodology involved:

- Research and development by Knowsley Council's Blueprint Group.
- Definition of pedagogy / functions in spaces.
- Understand usage patterns.

The resultant work is summarised in the following collection of supporting papers:

1. Summary of design patterns
2. Summary of Learning Methodologies
3. Key features of Learning Modules
4. Potential Learning Centre Management Structure
5. A day in the life of the Learning Centre
6. Typical Timetable for Individual Learning Plans
7. An example lesson plan
8. Learners Access to Individual Learning Plans
9. Potential Room Distribution

These papers formed the basis of design studies into individual spaces examined in the next section.

Supporting Papers

1. Design patterns

| Summary of the Design Patterns, described in The Language of School Design: Design Patterns for 21 st Century Schools by Prakash Nair & Randall Fielding, published by DesignShare in 2005 | |
|---|--|
| Classrooms, Learning studios, Advisories and small learning communities | From traditional classroom to suites of rooms, supervised "other spaces", Fat "L" shape, family grouping, learner clusters (Advisories) |
| Welcoming entry | Signature – What makes the school special. Covered entry. Community space Office facility Student display area |
| Student Display Space | In entrance – statement about learning |
| Home base and individual storage | Not lockers – lockable space Shared in lower school Individual in Yrs 10+ |
| Science Labs, Arts Labs and Life Skills Areas | Domain based - Active lab area, clean working area, "think tank" soft seating zone, messy area, student display area – lecture area Science and technology joint area "Living machine" concept – recycling of water, use in toilets. Sustainability learning points |

Section Two – Definition of Function

| | |
|------------------------------|---|
| Art, Music and Performance | <p>Art related spaces – entrance, atrium</p> <p>Prominent display of student work</p> <p>Performance area</p> <p>Radio/TV broadcasting</p> <p>Outdoor amphitheatre</p> |
| Physical Fitness | <p>So much sport in schools, so little physical fitness!</p> <p>Dance and aerobics, yoga, fencing, Tai Chi, bike riding</p> <p>Indoor jogging, recreational swimming, weightlifting</p> <p>Student “gyms” same as adults to</p> <p>develop lifelong habits</p> <p>Use cafeteria complex to deliver Health learning</p> |
| Casual eating areas | <p>Students can eat on demand!</p> <p>Centralised kitchen, smaller outlets</p> <p>Round table seating</p> <p>Picture windows with green Vista</p> <p>Outdoor eating terraces</p> <p>Students employed as kitchen workers!</p> <p>Students help decide menus</p> <p>Student ownership – serving food, running finances, cleaning up</p> <p>All day opening</p> |
| Transparency | <p>High level of visibility in formal and informal learning – sense of openness.</p> <p>Transparent central office</p> <p>Visible student working areas – specialist areas!</p> <p>Visibility between classrooms and informal learning areas – teacher monitoring</p> <p>Glazing in corridor areas into classrooms</p> |
| Interior and Exterior Vistas | <p>Expanding student’s horizons – visible lines of site – Vistas of 50 feet (15 metres) allow us to change focal length – health and comfort</p> |
| Dispersed Technology | <p>Wireless - Blurs the lines between learning spaces</p> |
| Indoor – Outdoor connection | <p>Use of learning terraces</p> <p>Large project areas - messy activities – gardening – sustainability</p> |
| Furniture – Soft seating | <p>Comfort stressed by students</p> |
| Flexible spaces | <p>From single purpose spaces to multi-functional areas</p> |
| “Campfire” space | <p>Allows teachers to gather group together for instruction or discussion</p> <p>Use of projector</p> <p>Darkening of room</p> |
| “Watering Hole” Space | <p>Allows learners to gather together for discussion and group work</p> <p>Collaborative learning encouraged</p> |

Section Two – Definition of Function

| | |
|---|---|
| "Cave" Space | Places for individual study, reflection, quiet reading and creative flow |
| Designing for Multiple Intelligences | Gardners Eight MI, plus Existential or World Smart All areas can be charted to indicate how they support MI. |
| Daylight and Solar Energy | Daylight has an impact upon high performance. Improves well being Can reduce energy load of building |
| Natural Ventilation | Healthy environment Reduces toxins in the air |
| Full Spectrum Lighting | Use Daylight standard Limited use of fluorescent lighting Wireless ICT use will have an impact upon lighting flexibility demands |
| Sustainable Elements and building as a 3-D textbook | Use building as a teaching tool Environmentally friendly design and build |
| Local Signature | Design features – welcoming entry Freestanding sculpture Artifact from originating school(s) |
| Connected to Community | Schools should: Be located close to heart of community Have links to community businesses, recreational amenities etc Be a welcoming place for the community |
| Bringing it all together | Integration of all the above features within the learning community |

2. Summary of Learning methodologies

Learning centres will offer students the opportunity to experience their learning through a variety of methodologies that include:

1. Independent study
2. Peer tutoring
3. Team collaborative work in small and mid-size groups (2-6 students)
4. One-on-one learning with the teacher
5. Lecture format with the teacher or outside expert at centre stage
6. Project based learning
7. Technology-based learning with mobile computers
8. Distance learning
9. Research via the internet with wireless networking
10. Student presentations
11. Performance and music based learning
12. Seminar -style instruction

Section Two – Definition of Function

13. Community service learning
14. Naturalist learning
15. Social/emotional learning
16. Art-based learning
17. Storytelling (floor seating)
18. Learning by building – hands on learning

Taken from The Language of School Design: Design Patterns for 21st Century Schools by Prakash Nair & Randall Fielding, published by DesignShare in 2005

3. Key features of Learning Modules

Learning modules will offer a variety of active learning approaches and amongst them the “Project” will feature prominently.

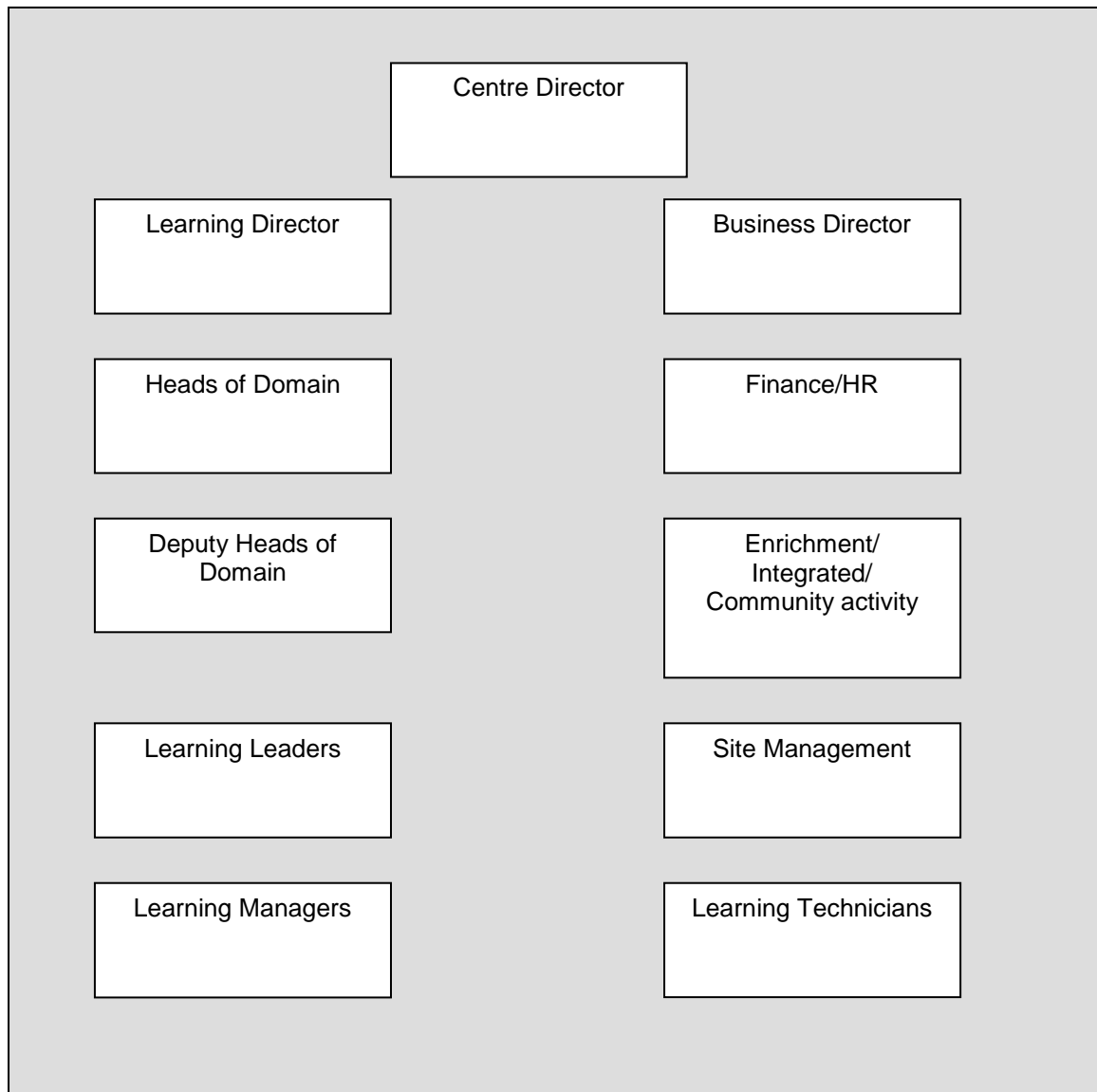
The key features of projects can be listed as follows:

- The objectives of the activity are clearly defined, understood and subscribed to.
- The task is authentic: the problem to be solved is a real one
- There is a clear and identifiable outcome or endpoint
- The activity is challenging, requiring a wide range of skills, including generic skills, and disciplined thinking and behaviour.
- The activity requires the learner to participate actively and so to extend current competences or acquire new ones.
- The learner is given real responsibility and is required to make important decisions that have real consequences for the self, for the task and for other people.
- The tasks demand the use of real resources, materials that have to be sought out or created and then used.
- The activity takes some time to complete, requires careful planning: and entails making some mistakes
- Help and support is needed from adults with experience of the activity and who are willing to serve as mentors.
- Adult – learner relationships differ from conventional teacher-student styles.
- There are opportunities to observe and imitate experienced adults.
- There are opportunities for independent learning that fosters the culture of self-education and the autodidact.
- Learners work in teams and act as mentors to one another.
- Learners get feedback on / what they do, on both success and failure
- Success is celebrated on completion of the activity.

Taken from: Learning for Life – The foundations for lifelong learning by David Hargreaves, The Policy Press, The Lifelong Learning Foundation, 2004

Section Two – Definition of Function

4. Potential Learning Centre Management Structure



Centre Director:

May work across a cluster of centres or a learning neighbourhood. Will have overall responsibility for all activity on a centre site.

Will require office base from which to work – this may be shared with Learning and Business Directors, so as to allow for access to a meeting room.

Will occasionally deliver whole-centre briefings in the large atrium.

Otherwise, day will consist of meetings to discuss strategy either within centre or between centres.

Learning Director:

Will be responsible for running family grouping arrangements within home bases and learning programmes. Will oversee work of Domain Heads and will have accountability for learning outcomes at centre level.

Section Two – Definition of Function

More ‘hands on’ than Centre Director in the delivery of strategy in the centre. Will meet regularly with Heads of Domain to discuss operational strategy.

Section Two – Definition of Function

Will possibly deliver a whole centre briefing in the large atrium once per week.

Will have access to a PA who will be responsible for servicing meetings etc.

Business Director/Manager

Will be the link between what happens in the learning centre and the PFI arrangements. Will be responsible for budgetary oversight and monitoring of community/extended use and integrated service delivery. Will oversee role of technicians and site management.

Will need to meet regularly with other directors and community and service managers/representatives.

Will frequently require to meet with representatives of PFI, Community and services.

5. A typical day in a BSF Learning Centre

A learner at Key Stage 3:

1. Access to building via pleasant walkways. Buses can deliver students to an access bay at the front/entrance to the school.
2. Arrive and immediately enter the building between 8.15-9.00 (either through 'Home base' or front entrance). Swipe entry will record attendance. Each learner will have a personal area/space (table/locked storage) to access belongings, charge laptop/PDA etc. Plasma screens will be used for information giving at entrances.
3. During that arrival time, there will be learning managers/technicians in home/personalised learning/social areas to greet learners. Breakfast (toast, tea etc) will be available from a cafeteria outlet within their home base.
4. Briefing within home base will take place between 9.00-9.15 in the home base atrium. This assembly will be held on occasions in the larger atrium area and be attended by whole population of the centre..
5. Learning hours begin at 9.30. They take place between 9.30-11.00 (Session 1) and 11.15-12.45 (session 2) . Most learning takes place in generic learning areas within the home bases. Where there are specialist requirements of domains, then learning will take place in specialist areas. The timetable will ensure that each Year Group has access to specialist areas on the same day.
6. Break/downtime can be spent either outside in the gardens or landscaped exterior or in the social spaces in the learning street(s).
7. Lunchtime is at 12.45-1.45 and will be served either as a hot buffet from a central dining area or from an outlet in the home base. Learners are able to access activities both inside and outside of the centre during lunchtimes. Some activities will be supported by adults, others will not.
8. From 1.45-3.15 (session 3) the third core session of the day takes place.
9. Learning Enrichment activities take place between 4.00 -10.00 and can be accessed by learners either within the Centres or by virtual means from home or other bases. These activities count as learning hours and can be recorded by swipe card or log-on to computer.

Learners at Key Stage 4/5:

- Learners at Key Stage 4/5 will register their attendance at the home base through swipe card or log in. They may access activity at a number of bases as they follow a number of curriculum pathways. They will have an individual learning programme which sets out their pathway and modules to be completed. There will be a requirement to complete at least 25 learning hours per week.
- Learning hours can be recorded through swipe entry or log in to the network.

Section Two – Definition of Function

Learning Leaders:

Every learner will have a named Learning Leader, who will have oversight of a learner's programme and assessments against targets. They are the learning 'specialists', who are responsible for deployment of Learning Managers in support of facilitation of learning. They will not be responsible for managing or supervising down time.

There will be a **Head of Domain** appointed from Learning Leaders, who will take on responsibility for oversight of all learning programmes in that domain. **Deputy Heads of Domain** will support that process and may have management oversight of Home Bases. A Centre's specialism will be reflected within the role of the Head of Domain.

They will have preparation time built in to their timetable and will require space in each home base for preparation of learning programmes. They will be responsible – under the direction of Heads of Domain - for populating the web-based learning zone linked to their domain.

They are responsible for tracking, charting and accounting for learner progress.

A typical day would be:

1. Arrive by 8.15 a.m. and reach home based staff meeting/preparation area by 8.45 a.m.
2. Home based Learning Leaders will assemble learners for briefing from 9.00-9.15.
3. Sessions 1-3:

Each session will follow a pattern similar to this:

- A. Information-giving to a large group (30-120 students) in atrium/large specialist areas to initiate learning activity.
- B. Direction to Learning Managers to facilitate agreed programmes of work in individual or small group sessions.
- C. Leading the plenary session as a whole group.

Learning Managers

Their work will be deployed by Learning Leaders and they will mentor/coach individuals and small groups of learners by facilitating progress through their individual learning plans.

They will operate flexible work patterns across 35 hours per week and across several blocks of time:

| | | |
|-------|---|-------|
| 8.15 | - | 11.00 |
| 11.00 | - | 12.45 |
| 12.45 | - | 3.15 |
| 4.00 | - | 6.00 |
| 6.00 | - | 10.00 |

The blocks of time from 6.00-10.00 will be Learning Enrichment activities.

They will not be responsible for managing or supervising down time.

Learning Technician

Supports delivery in the following areas of work:

- Catering
- ICT
- Down time/breaks
- Site mobility/movement of equipment

Section Two – Definition of Function

6. Typical Timetable for Individual Learning Plans

| | | Mon. | Tues. | Wed. | Thurs. | Fri. | Sat. | Sun. |
|-------------|--------------|--|---------------------|---------------------------------------|---------------------|---------------------|--|------|
| 9.00-9.15 | BRIEFING | | | | | | | |
| 9.30-11.00 | SESSION 1 | Domain 3: (Science, maths. technology, ICT domain) | Domain 1 | Domain 4: (Healthy lifestyles domain) | Domain 2 | Mentored self-study | On-line access to modules of work, to be accredited through 'learning hours' | |
| 11.00-11.15 | BREAK | | | | | | | |
| 11.15-12.45 | SESSION 2 | | Domain 2 | | Mentored self-study | Domain 1 | | |
| 12.45-1.45 | LUNCH | | | | | | | |
| 1.45-3.15 | SESSION 3 | | Mentored Self study | | Domain 1 | Domain 2 | | |
| 4.00-6.00 | ENRICHMENT 1 | Access to range of activity on-line and within the Centre, to be added to 'learning hours' | | | | | | |
| 6.00-10.00 | ENRICHMENT 2 | | | | | | | |

Section Two – Definition of Function

Typical timetable for a Year Group (Key Stage 4) GCSE

| | | Mon. | Tues. | Wed. | Thur. | Fri. | Sat. | Sun. |
|-------------|--------------|--|-------------------|-------------------|-------------------|-------------------|------|--|
| 9.00-9.15 | BRIEFING | | | | | | | |
| 9.30-11.00 | SESSION 1 | | | | | | | On-line access to modules of work, to be accredited through 'learning hours' |
| 11.00-11.15 | BREAK | BREAK | BREAK | BREAK | BREAK | BREAK | | |
| 11.15-12.45 | SESSION 2 | Choice of Domains | Choice of Domains | Choice of Domains | Choice of Domains | Choice of Domains | | |
| 12.45-1.45 | LUNCH | LUNCH | LUNCH | LUNCH | LUNCH | LUNCH | | |
| 1.45-3.15 | SESSION 3 | | | | | | | |
| 4.00-6.00 | ENRICHMENT 1 | Access to range of activity on-line and within the Centre, to be added to 'learning hours' | | | | | | |
| 6.00-10.00 | ENRICHMENT 2 | | | | | | | |

Section Two – Definition of Function

Typical timetable for a Year Group (Key Stage 4) Specialist Vocational

| | | Mon. | Tues. | Wed. | Thur. | Fri. | Sat. | Sun. |
|-------------|--------------|--|-------------------|------|-------------------|-------------------|------|------|
| 9.00-9.15 | BRIEFING | | | | | | | |
| 9.30-11.00 | SESSION 1 | | | | | | | |
| 11.00-11.15 | BREAK | BREAK | | | BREAK | BREAK | | |
| 11.15-12.45 | SESSION 2 | Choice of Domains | Choice of Domains | | Choice of Domains | Choice of Domains | | |
| 12.45-1.45 | LUNCH | LUNCH | LUNCH | | LUNCH | LUNCH | | |
| 1.45-3.15 | SESSION 3 | | | | | | | |
| 4.00-6.00 | ENRICHMENT 1 | Access to range of activity on-line and within the Centre, to be added to 'learning hours' | | | | | | |
| 6.00-10.00 | ENRICHMENT 2 | | | | | | | |

Section Two – Definition of Function

Typical timetable for a Year Group (Key Stage 4) Combined Studies

| | | Mon. | Tues. | Wed. | Thur. | Fri. | Sat. | Sun. |
|-------------|--------------|--|-----------------------------------|--|-----------------------------------|-------|------|--|
| 9.00-9.15 | BRIEFING | | | | | | | |
| 9.30-11.00 | SESSION 1 | College or Vocational Skills Centre for BTEC | | College or Vocational Skills Centre for BTEC | | | | On-line access to modules of work, to be accredited through 'learning hours' |
| 11.00-11.15 | BREAK | | BREAK | | BREA K | BREAK | | |
| 11.15-12.45 | SESSION 2 | | Choice of Domains other than core | | Choice of Domains other than core | | | |
| 12.45-1.45 | LUNCH | | | | | | | |
| 1.45-3.15 | SESSION 3 | | | | | | | |
| 4.00-6.00 | ENRICHMENT 1 | Access to range of activity on-line and within the Centre, to be added to 'learning hours' | | | | | | |
| 6.00-10.00 | ENRICHMENT 2 | | | | | | | |

Section Two – Definition of Function

Typical timetable for a Year Group (Key Stage 4) Apprenticeship

| | | Mon. | Tues. | Wed. | Thurs. | Fri. | Sat. | Sun. |
|---------------|------------------|--|-------|----------|----------------------|----------------------|------|--|
| 9.00-9.15 | BRIEFING | | | | | | | |
| 9.30-11.00 | SESSION 1 | | | Employer | | | | On-line access to modules of work, to be accredited through 'learning hours' |
| 11.00 - 11.15 | BREAK | BREA K | | | BREA K | BREAK | | |
| 11.15 - 12.45 | SESSION 2 | Choice of Domains | | | Choice of Domains | Choice of Domains | | |
| 12.45 -1.45 | LUNCH | LUNC H | | | LUNC H | LUNCH | | |
| 1.45-3.15 | SESSION 3 | | | | | | | |
| 4.00-6.00 | ENRICHMEN T 1 | | | | | | | |
| 6.00-10.00 | ENRICHMEN T 2 | Access to range of activity on-line and within the Centre, to be added to 'learning hours' | | | | | | |

Section Two – Definition of Function

Typical timetable for a Year Group (Key Stage 4) Work Based

| | | Mon. | Tues. | Wed. | Thur. | Fri. | Sat. | Sun. |
|-------------------------|-----------------|---|-------|----------------------|----------------------|----------------------|----------------------|------|
| 9.00 - 9.15 | BRIEFING | | | | | | | |
| 9.30 - 11.0 0 | SESSION 1 | | | Work Based Providers | Work Based Providers | Work Based Providers | | |
| 11.0 0- 11.1 5 | BREAK | BREAK | | | | | BREAK | |
| 11.1 5- 12.4 5 | SESSION 2 | Choice of Domains | | | | | Choice of Domains | |
| 12.4 5- 1.45 | LUNCH | LUNCH | | | | | LUNCH | |
| 1.45 - 3.15 | SESSION 3 | | | | | | | |
| 4.00 - 6.00 | ENRICHMENT 1 | Access to range of activity on-line and within the Centre, to be added to 'learning hours' | | | | | | |
| 6.00 - 10.0 0 | ENRICHMENT 2 | | | | | | | |

7. An Example Lesson Plan

LESSON PLANNING

GENERIC

Key Stage: 3

Domain: 2

Module: Star Crossed Lovers

Lesson 2 (1.5 hours)

1. Introductory session within generic learning space led by Learning Leader. 360 degree technology used to beam thematic image around learning area. (5 Mins)
2. Whole group viewing of video clip from 'Romeo and Juliet' on plasma screen. (10 mins)
3. Small groups logging into learning zone with Learning Manager support, to access programme of learning for this module. Download of activity into PDA. (5 mins)
4. Individualised activity in range of areas (exterior, social/learning spaces, corners of generic spaces, personalised learning space) to complete activity, through combination of viewing video footage, entering text etc. (60 mins)
5. Plenary session with whole group in whole generic learning space. (15 mins)

Section Two – Definition of Function

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|--------------------------|--|
| BSF Capability Statement | |
|--------------------------|--|

Section Two – Definition of Function

SPECIALIST

Key Stage: 3

Domain: 3

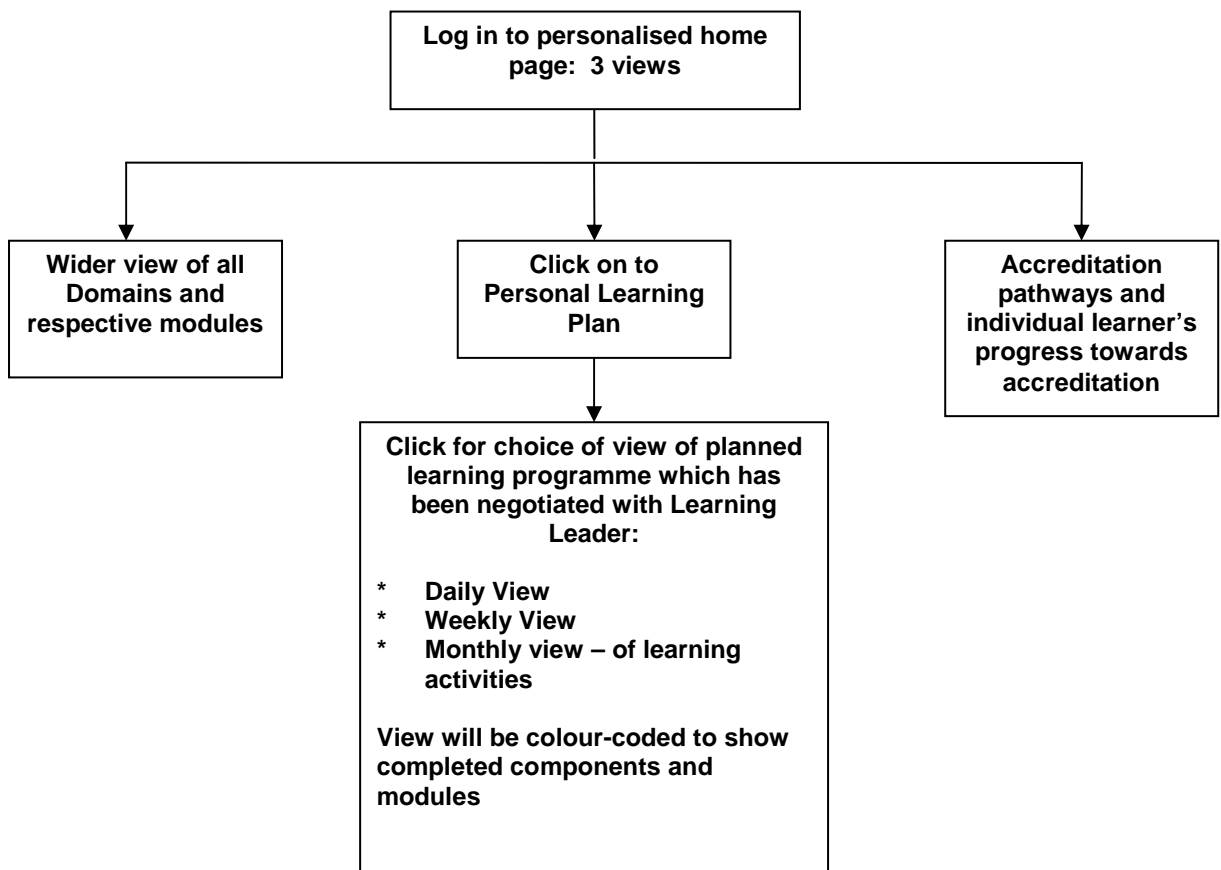
Module: Silence is Golden

Number of learning hours: 10

Lesson 1 (1.5 Hours)

1. Introductory performance within lecture-style science area. (120 students) delivered by Learning Leader. (20 mins)
2. Break out into 4 groups (each with Learning Leader) either in science area (partitioned) or in other learning spaces, for group briefing using module outline from Domain 3 Learning zone. (10 mins)
3. Smaller group work on activities related to module, supported by Learning Managers. (45 mins)
4. Return to 4 groups as in (2) to reflect and consolidate learning as part of a plenary session. (10 mins)

Learners' Access to the Individual Learning Environments



8. Learners Access to Individual Learning Plans

Section Two – Definition of Function

9. Potential distribution of rooms

If each home base contains sufficient generic spaces for each learner to access a personalised space and these are to be used 70-80% of the timetable, then the number of generic learning spaces should equate to number of forms of entry.

Where these spaces are not being used for teaching, they can double up as meeting areas/time out rooms etc.

If the timetable is organised in domains as suggested, then there will be reduced pressure on specialist rooms, which can be used on a rota basis within the domain and can be fully timetabled for one year group per day. Lecture theatre-style delivery can in some curriculum areas – with additional break-out space provided, should ease pressure on specialist bases and reduce the timetabling pressures of old, in which PE and technology need to be timetabled as a priority.

There will need to be sufficient office, integrated service and therapeutic delivery rooms in each home base to make them self-sufficient. The arrangement of toilet areas has been suggested within Volume 1, but will depend on funding.

Outline description of core rooms required within each base (based on model described in concept map)

4-form entry

this notional structure does not take into account the number of pupils at Key Stage 4 who may be educated in other centres

- Central administration area with office base (could be shared?) for Centre Director, Learning Director and Business Director.
- Administrative offices for PA, Secretariat etc
- Central entrance area
- 4 home bases 4 generic learning spaces in each
- Staff meeting/reprographic area within each home base
- Toilets – either centrally based or in each home base?
- In each home base, 1 small office base on each floor for time out and mentoring/counselling etc
- In each of 3 home bases, 2 therapeutic rooms on each floor, set up for health delivery. In the other home base, 2 adjacent therapeutic rooms with adjoining 1-way mirror for delivery of observation techniques.
- Catering outlet (can be mobile on each floor of home base)
- Medium sized atrium at end of home base nearest to central area- to abut to other atria in order to form a large atrium for performances etc
- Central staff meeting room
- Sports complex
- Technology suite (can be flexible space to provide for 120+ learners and subdivided for small group)
- Science suite (as above) – both technology and science suites will require central preparation space

Section Three – Space Studies

Using the information provided by the Blueprint Group, Hickton Madeley Architects produced studies into the following generic spaces:

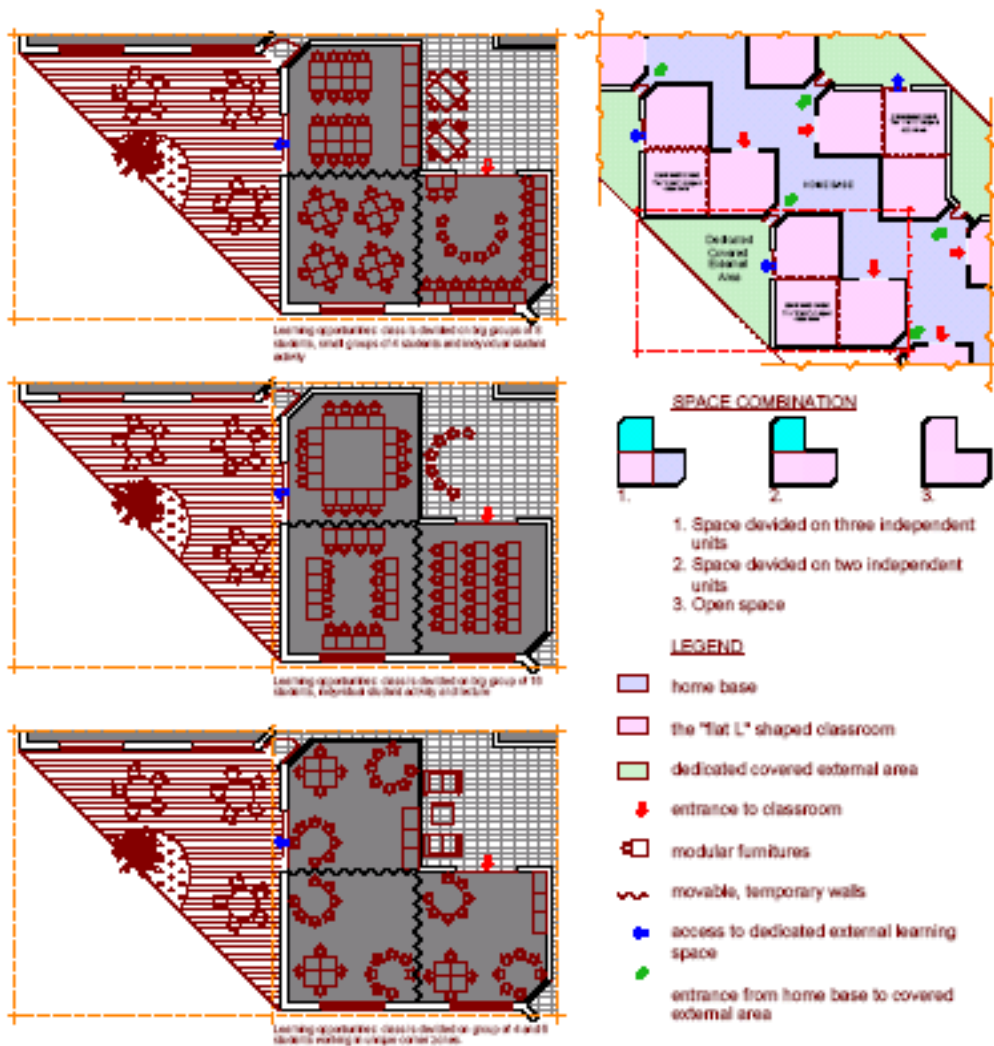
The “L” shaped Learning Base – At 80m² the space is able to accommodate different learning styles including Campfire, Watering Hole and Cave Space. Clustered around generous home bases they also act as a touch down space for year 7 and 8. The Learning base provides internal social space and informal study spaces.

The “Warehouse” – Shown as two Science and Technology spaces - these use flexible walls and tiered seating systems to provide space that can be configured and reconfigured like the scenery in a film set. Configurations include demonstration, lecture and practical areas and the ability to provide a 360 theatre.

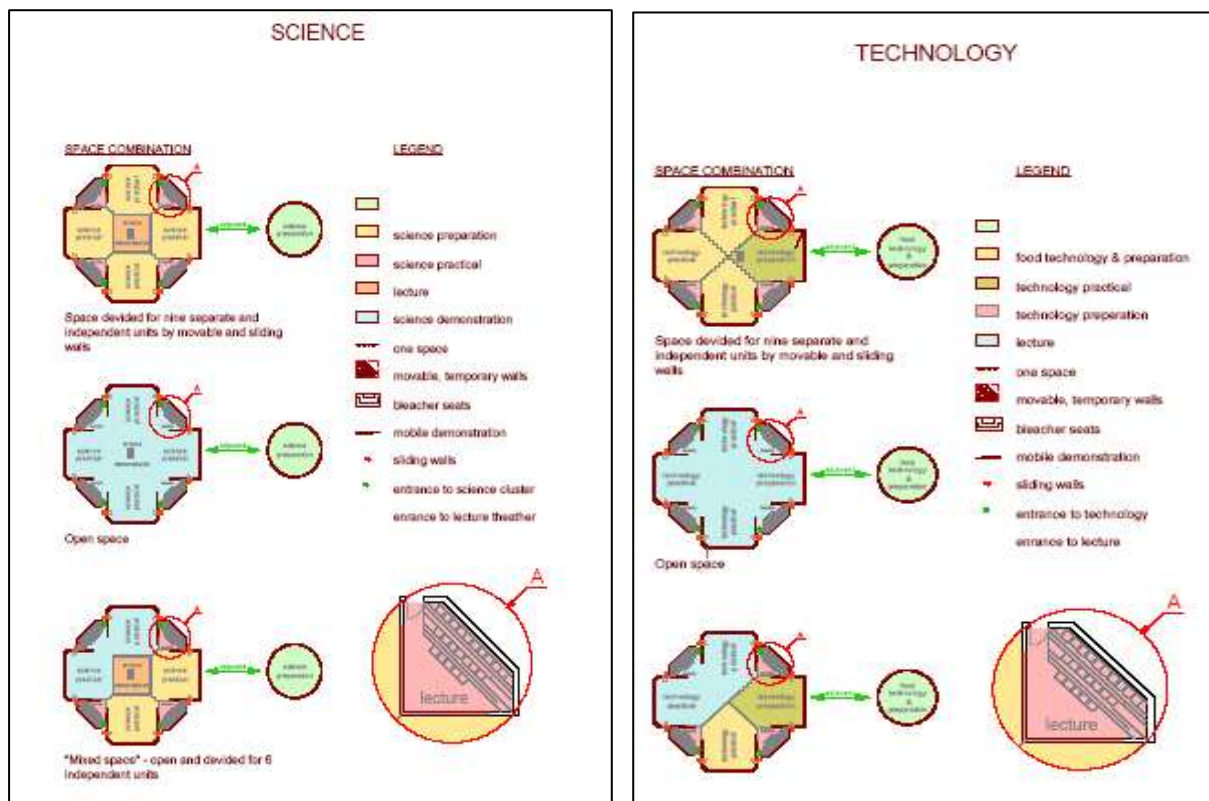
Sport, activity and dining spaces – This study shows the potential to cluster spaces to allow healthy eating, fitness, sport and other activities to be associated with each other.

Further development of other areas was reflected in the text of the Output Specification in volume 3A section 2.

LEARNING BASES The "flat L shaped classroom"



Section Three – Space Studies



Section Four – Schedules of Accommodation

After several iterations, groupings of multifunctional spaces were scheduled out using curriculum based models, identifying the need for specialised accommodation, individualised Learning Spaces, and general teaching areas. These were scheduled out together with other functional and ancillary spaces based on a 1050 student Learning Centre model. This also included collocated Community, Children's Services and Neighbourhood Management Spaces. The following Schedule was refined to form the generic basis of the models for the remaining network of centres. The schedules that appear in Section 3B of the Output Specification vary slightly as they have continued to be refined as the detailed scoping of the project has developed.

Notional curriculum time.

Year 7 & 8

| Space Requirements | Session per week | 25 | | | | |
|-----------------------|------------------|-----------------------|----------|----------------|---------------|---------------------|
| Typical Curriculum | FE | 7 | | | | |
| | Size of form | 30 | | | | |
| | No Years | 2 | | | | |
| | % time | Sessions per pupil | Round up | Periods req | Group Size | Teaching Periods |
| General Teaching | 44.00% | 11 | 11 | 4620 | 30 | 154 |
| Science | 12.00% | 3 | 3 | 1260 | 20 | 63 |
| Art | 4.00% | 1 | 1 | 420 | 30 | 14 |
| Design and Technology | 8.00% | 2 | 2 | 840 | 20 | 42 |
| Music | 4.00% | 1 | 1 | 420 | 30 | 14 |
| Drama | 4.00% | 1 | 1 | 420 | 30 | 14 |
| PE | 8.00% | 2 | 2 | 840 | 30 | 28 |
| Personal Learning | 16.00% | 4 | 4 | 1680 | 30 | 56 |
| | 100.00% | | 25.00 | | | |

Section Four – Schedules of Accommodation

Year 9

Space Requirements
Typical Curriculum

Session per week 25
FE 7
Size of form 30
No Years 1

| | % time | Sessions per pupil | Round up | Periods req | Group Size | Teaching Periods |
|-----------------------|---------|-----------------------|----------|----------------|---------------|---------------------|
| General Teaching | 36.00% | 9 | 9 | 1890 | 27 | 70 |
| Science | 12.00% | 3 | 3 | 630 | 27 | 23 |
| Art | 4.00% | 1 | 1 | 210 | 27 | 8 |
| Design and Technology | 8.00% | 2 | 2 | 420 | 27 | 16 |
| Music | 4.00% | 1 | 1 | 210 | 27 | 8 |
| Drama | 4.00% | 1 | 1 | 210 | 27 | 8 |
| PE | 8.00% | 2 | 2 | 420 | 27 | 16 |
| Personal Learning | 24.00% | 6 | 6 | 1260 | 27 | 47 |
| | 100.00% | | 25.00 | | | |

Year 10&11

Space Requirements
Typical Curriculum

Session per week 25
FE 7
Size of form 30
No Years 2

| | % time | Sessions per pupil | Round up | Periods req | Group Size | Teaching Periods |
|-----------------------|---------|-----------------------|----------|----------------|---------------|---------------------|
| General Teaching | 28.00% | 7 | 7 | 1470 | 27 | 54 |
| Science | 16.00% | 3.67 | 4 | 840 | 27 | 31 |
| Art | 4.00% | 1 | 1 | 210 | 24 | 9 |
| Design and Technology | 8.00% | 2 | 2 | 420 | 24 | 18 |
| Music | 4.00% | 1 | 1 | 210 | 24 | 9 |
| Drama | 4.00% | 1 | 1 | 210 | 24 | 9 |
| PE | 8.00% | 2 | 2 | 420 | 24 | 18 |
| Personal Learning | 28.00% | 7 | 7 | 1470 | 27 | 54 |
| | 100.00% | | 25.00 | | | |

Section Four – Schedules of Accommodation

| | Teaching Periods | Spaces Req | Utilisation factor | | Round up |
|-----------------------|---------------------|---------------|-----------------------|-------|-------------|
| TOTAL All Years | | | | | |
| General Teaching | 278 | 11.13778 | 0.85 | 13.10 | 13 |
| Science | 117 | 4.697778 | 0.75 | 6.26 | 7 |
| Art | 31 | 1.221111 | 0.75 | 1.63 | 2 |
| Design and Technology | 75 | 3.002222 | 0.75 | 4.00 | 4 |
| Music | 31 | 1.221111 | 0.85 | 1.44 | 2 |
| Drama | 31 | 1.221111 | 0.85 | 1.44 | 2 |
| PE | 61 | 2.442222 | 0.85 | 2.87 | 3 |
| Personal Learning | 157 | 6.284444 | 0.85 | 7.39 | 8 |
| | | | | | 41 |

Several meeting were held with the Council's Co location group. This produced the following schedule of accommodation:

Section Four – Schedules of Accommodation

| All spaces 365 days of year, but patterns of use to vary. Holiday clubs for out of term activities | | | | | | | | | | | | | | |
|--|------------------------------|---|---|---|---|---|--------------|------------|-----------------------|-----------|------------------|---------------|----------|------|
| Space | Function | Requirements | Where | Additional Area Requirement? | Area Requirement | Hours | Kirby Campus | Kirby RCLC | Kirby N. Huyton Joint | S. Hutton | Knowsley central | Knowsley RCLC | Halewood | |
| | | | | | | | LC01 | LC02 | LC03 | LC04 | LC05 | LC06 | LC07 | LC08 |
| 1 | Joint Reception | Query Council tax | Staffed by multi skilled receptionist | Kirby Campus | Enlarged reception area with additional counter space and booth/desk with computer. Separate small meeting room | 18 | 18 | | 18 | | | 18 | | |
| | One stop shop | Benefit forms | As per civic Centre Counter with computer | Knowsley RC | | | | | | | | | | |
| 2 | Integrated Learning resource | Library open to community | Open up from 4.00pm and weekends Acts as a satellite to main libraries can order books use usual services. Additional hours funded by? Potential. | Across most except Ravenscourt(Halewood) subject to funding | No additional space required | M,W 9-7pm, T&F 915-5.00pm, T closed, Sat 10-4pm | | | 150 | | | | | |
| | Centre | | | | | | | | | | | | | |
| 3 | Integrated Dining facilities | Refreshment facilities to serve community | Snacks beverages sandwiches | All except Knowsley central | No additional space required | | | | | | | | | |
| 4 | Community & Youth Centre | Tea dances | Hall and meeting space | All except Knowsley central | Additional admin via existing office set up | 9.00 - 10.00pm | | | | | | | | |
| | | Scout Groups Community events Councilor surgeries Morris dancing Credit union | After School use | | | | | | | | | | | |

Section Four – Schedules of Accommodation

| | | | | | | | | | | | | | | | |
|----|-------------------------------|------------------------------------|---|-------------------------------------|---|-----|--|--|-------------|----|----|----|----|----|----|
| 5 | AWP's | Community Sport | After school hour | At North Huyton, South Huyton KCRC. | Accessibility to be designed in, but requirement for separate sports reception area and community lobby | 20 | | | | | | 20 | | | 20 |
| 6 | Fitness suite | | Facility, subject to business case. Out of hours. Private sector to take risk? | At North Huyton, South Huyton KCRC. | Dedicated fitness suite currently excluded from area model. | 0 | | | | 0 | | | | | 0 |
| 7 | Dance studio | | As Community & Youth | All | Included in current model, but out of school day | | | | | | | | | | |
| 8 | Integrated childrens Services | | Office space for between 5-10 staff. A small meeting space. | All | Open plan office for 5 -10. Use common interview room. | 50 | | | 8.00 6.00pm | 50 | 50 | 50 | 50 | 50 | 50 |
| 9 | Neighbourhood Management | | Office space for between 5 staff | All | Open plan office for 5 -10. Can use common interview room, but if ISCS included then will need another (allowance included) | 50 | | | 8.00 6.00pm | 50 | 50 | 50 | 50 | 50 | 50 |
| 10 | Arts | Display space | Space to display community art | All | Included in current model | | | | | | | | | | |
| 11 | Creche | Permanent Creche | For use of community facilities. Possibly for school staff and pupils? Capacity? | South Huyton Learning Centre | Depends on size and age range | 100 | | | | | | | | | |
| 12 | Social Services | Only integrated children's centres | But Learning and physical disabilities day centres. Facilities = sport, Library, activity rooms, dance, drama. Usage to be confirmed. | TBC | No allowance yet | | | | 8.00 6.00pm | | | | | | |

Section Four – Schedules of Accommodation

From the above schedules a detailed schedule of accommodation was derived. A cautious approach was taken to give flexibility to change learning patterns and to allow space to be allocated to specific age groups. Thus the amount of Timetabled Learning Spaces (54) exceeds the 41 suggested in the tables above.

| Schedule of Accommodation | | | Proposed Area | No | Gps | Total | |
|--------------------------------|----------------------------|---------------------|---------------|-----|-----|-------|------|
| Learning Spaces | | | | | | | |
| Learning Bases | year | 7&8 | | 80 | 14 | 14 | 1120 |
| Study base | | | | 60 | 9 | 9 | 540 |
| Large Study Base | | | | 80 | 3 | 3 | 240 |
| Science and Technology Cluster | Science | | | 539 | 1 | 8 | 539 |
| | Technology | | | 404 | 1 | 6 | 404 |
| | Food Technology | | | 101 | 1 | 1 | 101 |
| Arts | Activity studio | | | 90 | 3 | 3 | 270 |
| | Music learning space | | | 65 | 1 | 1 | 65 |
| | Music practice / recording | | | 12 | 2 | | 24 |
| | | | | 8 | 1 | | 8 |
| | Art room | | | 105 | 3 | 3 | 315 |
| Sport | | Sports hall | | 594 | 1 | 2 | 594 |
| Lecture Theatre | | | | 150 | 1 | 2 | 150 |
| Learning Resources | | Library and careers | | 151 | 1 | 2 | 151 |
| Timetabled spaces | | | | | | 54 | |

Section Four – Schedules of Accommodation

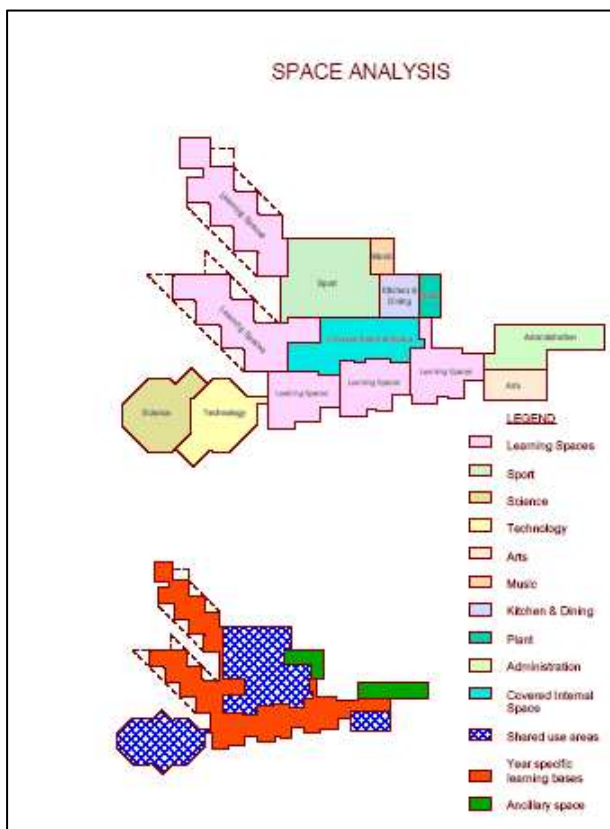
| Other Spaces | | Timetabled spaces | | 54 |
|-----------------------------------|-----------------|-------------------|-------|-------|
| Main Dining Area | Servery | 50 | 1 | 50 |
| | Eating & social | 150 | 1 | 150 |
| Kitchens | Prep area | 70 | 1 | 70 |
| | Store | 6 | 2 | 12 |
| | Welfare | 12 | 1 | 12 |
| | Office | 10 | 1 | 10 |
| Home base office (head of domain) | | 16 | 5 | 80 |
| Quiet room/interview/cool off | | 12 | 5 | 60 |
| Servery | | 8 | 5 | 40 |
| Science Prep | | 91 | 1 | 91 |
| Technology Prep | | 50 | 1 | 50 |
| Food Prep | | 12 | 1 | 12 |
| Changing | m | 45 | 1 | 45 |
| | f | 45 | 1 | 45 |
| | m | 45 | 1 | 45 |
| | f | 45 | 1 | 45 |
| Music Store | | 16 | 1 | 16 |
| Art Store | | 12 | 3 | 36 |
| Drama Store | | 16 | 1 | 16 |
| Sports Store | Int | 25 | 1 | 25 |
| | ext | 25 | 1 | 25 |
| | activity | 12 | 1 | 12 |
| Home Base Store | | 16 | 5 | 80 |
| Administration office | | 48 | 1 | 48 |
| Admin Store | | 16 | 1 | 16 |
| Senior management Team | | 12 | 6 | 72 |
| Conference room | | 16 | 1 | 16 |
| Offices | Community | 12 | 1 | 12 |
| | SEN | 12 | 1 | 12 |
| | Exam | 12 | 1 | 12 |
| Teaching resource and preparation | | 20 | 5 | 100 |
| SEN therapy/ MI room | | 12 | 2 | 24 |
| Server room | | 10 | 2 | 20 |
| ICT support base | | 16 | 2 | 32 |
| ICT Store | | 8 | 2 | 16 |
| Reprographics | | 26 | 1 | 26 |
| pupil toilets | | 140 | 1 | 245 |
| staff toilets | | 32 | 1 | 32 |
| Staff personal storage | | 25 | 1 | 25 |
| chair store | | 18 | 1 | 18 |
| maintenance store | | 20 | 1 | 20 |
| cleaners' stores | | 5 | 1 | 5 |
| Total Nett Area | | | | 6299 |
| Home Base | 7 | 250 | 1 | 250 |
| | 8 | 250 | 1 | 250 |
| | 9 | 250 | 1 | 250 |
| | 10 | 250 | 1 | 250 |
| | 11 | 250 | 1 | 250 |
| Covered space activity area | | Instead of Hall | | 1000 |
| | | Circulation | 0.275 | 732 |
| | | Plant | 0.025 | 157 |
| | | Int partitions | 0.042 | 265 |
| Total Gross | | | | 9,703 |

Section Four – Schedules of Accommodation

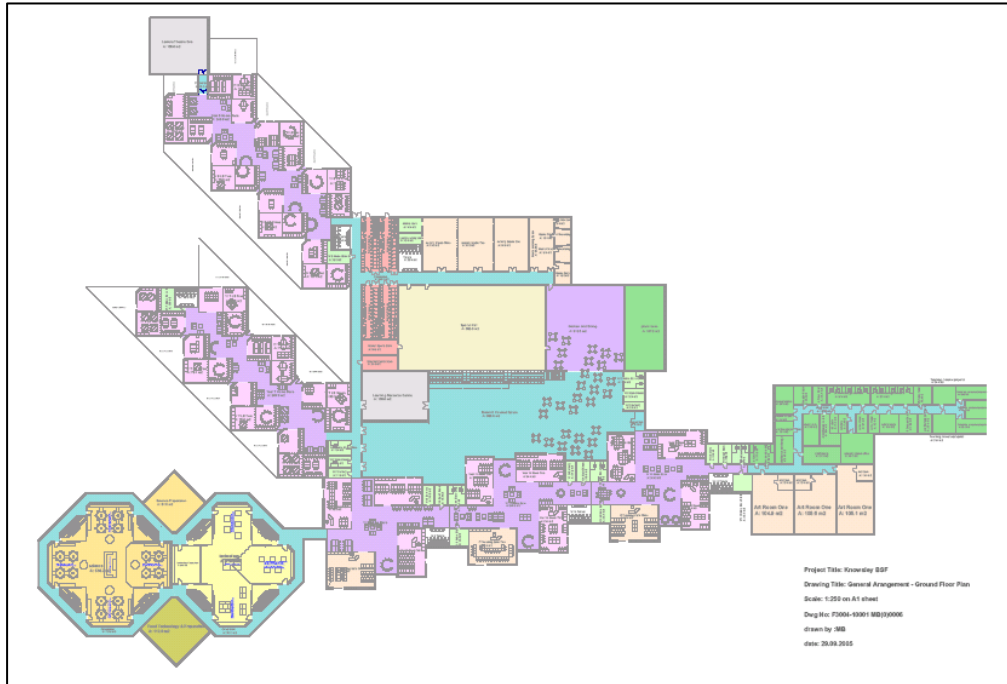
The following analysis compares the final accommodation solution against a BB98 schedule of accommodation.

| Example Learning Centre | | | | | | |
|---------------------------|-------|---------------------------|------|-------|--------|----------|
| Calculation of BB98 areas | | | | | | |
| NOR | 1,050 | | | | | |
| FTE | 95 | 11 - 16 secondary schools | | BB98 | Actual | Variance |
| TOTAL NET BUILDING AREA | | 1300 | 4.7 | 6,235 | | |
| basic teaching | | 50 | 3 | 3,765 | 3,776 | - 11 |
| halls | | 600 | 0.3 | 915 | 594 | 321 |
| learning resources | | 75 | 0.25 | 338 | 235 | 103 |
| staff & admin. | | 125 | 0.3 | 440 | 435 | 5 |
| storage | | 175 | 0.35 | 543 | 438 | 105 |
| dining & social | | 25 | 0.2 | 235 | 240 | - 5 |
| 'float' | 565 | 250 | 0.3 | | | |
| Other | | | | | - | - |
| Check | | | | 6,235 | 5,718 | 517 |
| Plant | | 3.50% | | 218 | 177 | 41 |
| Circulation | | 27.50% | | 1,715 | 2,982 | - 1,268 |
| Int ptns | | 2.10% | | 131 | 265 | - 134 |
| Personal care | | | | 458 | 457 | 1 |
| Kitchen | | | | 125 | 104 | 21 |
| | | | | 8,881 | 9,703 | - 822 |

The Schedule of accommodation was then tested by Hickton Madeley producing a concept layout plan which is reproduced below. This plan demonstrates potential adjacencies, but requires further development to ensure the vision is delivered and to iron out any design issues. It also only represents the accommodation at one level. It was felt that the layout was sufficient to test the scheme budget and to demonstrate that assumptions on plant, circulation and internal partition space can be met. The layout as shown is currently 164m² over the target area. For this reason no further development work has been undertaken, as it has been assumed that further iterations would eventually produce a scheme at the target area.



Section Four – Schedules of Accommodation



Section Five – Capital Cost Budget

Gleeds Cost Management undertook a review of the exemplar design work to check the design concepts against the financial model inputs. The following cost plan reflects a scheme similar in concept to the exemplar layout at 9,431m², with similar levels of design concepts and FFE.

Removed for issue to bidders

Section Five – Capital Cost Budget

This compares favourably with the DfES benchmark data:

| pfs model | | | | Exemplar Model |
|--|-----------------|-----------------|--------------------------------|-------------------------|
| | DTI Pubsec | | Knowsley Location Factor | Knowsley 93% 3Q05 |
| | 1Q03 | 3Q05 | | |
| COSTS | 141 | 165 | 93% | 165 |
| base construction cost (incl. prelims, contingencies, o&p) | 1,080.00 | 1,263.83 | 1,175.36 | 1,201.85 |
| 12.0% external works | 129.60 | 151.66 | 151.66 | 214.72 |
| 5.0% abnormals | 54.00 | 63.19 | 63.19 | 24.65 |
| sub total | 1,263.60 | 1,478.68 | 1,390.21 | 1,441.22 |
| 12.5% fees | 157.95 | 184.84 | 173.78 | 147.09 |
| Sub Total | 1,421.55 | 1,663.52 | 1,563.99 | 1,588.31 |
| FF&E (per pupil) | 1,000.00 | 111.33 | 130.29 | 1,594.11 |
| ICT Infrastructure (per pupil) | 225.00 | 25.05 | 29.31 | 216.10 |
| Total | 1,557.94 | 1,823.12 | 1,723.59 | 1,789.85 |

All figures are based upon a Learning Centre of 9,431m², and an NOR of 1,050 pupils.

Figures are also base dated to 3Q05, and reflect a Knowsley location factor of 93% in accordance with information published by DfES.

The bottom line identifies that the standard BSF benchmark would be in the region of £1,754 for this project based upon BB98 and traditional school design and construction. The cost of construction for a school based upon the Exemplar Model is identified as being in the region of £1,790.

Section Six – Timetabling



Timetable based on provided Schedule of Accommodation

Periods Per Timetable Cycle Needed

| Year | General Teaching | Science | Art | Design Tech | Music | Drama | PE | Personal Learning |
|------------------|------------------|------------|-----------|-------------|-----------|-----------|-----------|-------------------|
| Lessons x Groups | 11x9 | 3x10 | 1x10 | 2x11 | 1x9 | 1x9 | 2x9 | 4x7 |
| 7 | 99 | 30 | 10 | 22 | 9 | 9 | 18 | 21 |
| 8 | 99 | 30 | 10 | 22 | 9 | 9 | 18 | 21 |
| Lessons x Groups | 9x9 | 2x10 | 1x10 | 2x11 | 1x9 | 1x9 | 2x9 | 7x7 |
| 9 | 81 | 20 | 10 | 22 | 9 | 9 | 18 | 14 |
| 10 | 81 | 20 | 10 | 22 | 9 | 9 | 18 | 14 |
| 11 | 81 | 20 | 10 | 22 | 9 | 9 | 18 | 14 |
| Total | 441 | 120 | 50 | 110 | 45 | 45 | 90 | 84 |

Current Periods Per Timetable Cycle Capacity (Rooms x Periods)

| Domain | General Teaching | Science | Art | Design Tech | Music | Drama | PE | Personal Learning | Comments |
|---------------------|------------------|------------|-----------|-------------|-----------|-----------|-----------|-------------------|-----------------------|
| Learning Bases | 350 | | | | | | | | |
| Study Bases | 225 | | | | | | | | |
| Science | | 200 | | | | | | | |
| Technology | | | | 175 | | | | | 6 Technology + 1 Food |
| Food | | | | | | | | | |
| AC S | | | | | | 75 | | | |
| Music | | | | | 25 | | | | |
| Art | | | 75 | | | | | | |
| Sp hall | | | | | | | 50 | | |
| Library | | | | | | | | 50 | |
| Total | 575 | 200 | 75 | 175 | 25 | 75 | 50 | 50 | |
| Surplus / Shortfall | 134 | 80 | 25 | 65 | 20 | 30 | 40 | 34 | |

The exercise takes into account group sizes and a curriculum structure that is in keeping with the kind of group sizes commonly found in present-day UK secondary schools. A curriculum model has been constructed that it is believed begins to address the personalised learning agenda and an accommodation schedule that would cope with the transition from the typical current practice to anticipated future practice.

Assuming a cohort of 210 pupils in each year group, the table above recommends appropriate class sizes. These differ according to subject and year group. As the pupils move through the years the intention is to allow for a greater amount of personal learning through discrete timetabled lessons and also within subject areas. For example, in some science lessons in Key Stage 4 room timetabling will allow flexibility to move from a practical to a lecture style of learning; clearly this will be subject to teacher/adult support. In terms of subjects, the more that subjects can be grouped together the more likelihood there is of multi-purpose use of space. Therefore there is a group of subjects called Creative Arts and includes Art, Music, Drama and PE.

The curriculum model has been structured as follows:

- Pupils in year 7 and year 8 are taught in half year populations – such that only half a year group need be engaged in the same subject simultaneously - allowing for setting/banding in the majority of General Teaching, Personal Learning, Science and DT.
- In year 9 is has been assumed that by moving from 7 groups of 30 to 8 groups of 27, some opportunities exist for blocking in half years in General Teaching, but in the main it would be expected that this additional group would provide more flexibility for 2 classes to be taught together. Science and DT numbers per group are larger than in Years 7 and 8; however, they have been timetabled to have access to more than one specialist room per group to encourage a more flexible and personalised approach to their learning.
- Pupils in year 10 and year 11 are taught in half year populations, but only in the core subjects, i.e. General teaching, Science, PE and Personal Learning. A typical range of option choices are timetabled across the year group. Whole year teaching in Science could be provided on 2 occasions in a cycle.

Section Seven – Facilities Management Solutions

In the above example the shortfalls indicated in personalised learning are met through an excess of general learning spaces, whilst PE and music shortfalls are met by an excess of Art and drama spaces.

An optimised rooming requirement is illustrated below that reflects an efficient personalised learning timetable. This creates less demand on the accommodation, which could potentially be freed up for community or other uses.



| Year | Class | General Teaching | Science (and DT) | Personal Learning | Creative Arts | Design Tech | PE | Option 1 | Option 2 | Option 3 |
|------|-------|------------------|------------------|-------------------|---------------|-------------|------|----------|----------|----------|
| 7 | 1 | GT 11 | Sc Dt 5 | Pl 4 | Cr Ar 5 | | | | | |
| 7 | 2 | GT 11 | Sc DT 5 | Pl 4 | Cr Ar 5 | | | | | |
| 7 | 3 | GT 11 | Sc DT 5 | Pl 4 | Cr Ar 5 | | | | | |
| 7 | 4 | GT 11 | Sc DT 5 | Pl 4 | Cr Ar 5 | | | | | |
| 7 | 5 | GT 11 | Sc DT 5 | Pl 4 | Cr Ar 5 | | | | | |
| 7 | 6 | GT 11 | Sc DT 5 | Pl 4 | Cr Ar 5 | | | | | |
| 7 | 7 | GT 11 | Sc DT 5 | Pl 4 | Cr Ar 5 | | | | | |
| | | | Sc DT 5 | | | | | | | |
| | | | Sc DT 5 | | | | | | | |
| | | | Sc DT 5 | | | | | | | |
| | | | Sc DT 5 | | | | | | | |
| 8 | 1 | Gt 11 | Sc Dt 5 | Pl 4 | Cr Ar 5 | | | | | |
| 8 | 2 | Gt 11 | Sc Dt 5 | Pl 4 | Cr Ar 5 | | | | | |
| 8 | 3 | Gt 11 | Sc Dt 5 | Pl 4 | Cr Ar 5 | | | | | |
| 8 | 4 | Gt 11 | Sc Dt 5 | Pl 4 | Cr Ar 5 | | | | | |
| 8 | 5 | Gt 11 | Sc Dt5 | Pl 4 | Cr Ar 5 | | | | | |
| 8 | 6 | Gt 11 | Sc Dt 5 | Pl 4 | Cr Ar 5 | | | | | |
| 8 | 7 | Gt 11 | Sc Dt 5 | Pl 4 | Cr Ar 5 | | | | | |
| | | | Sc Dt t | | | | | | | |
| | | | Sc Dt t | | | | | | | |
| | | | Sc Dt t | | | | | | | |
| | | | Sc Dt t | | | | | | | |
| 9 | 1 | Gt 9 | Sc 3 | PL 6 | Cr Ar 5 | Dt 2 | | | | |
| 9 | 2 | Gt 9 | Sc 3 | PL 6 | Cr Ar 5 | Dt 2 | | | | |
| 9 | 3 | Gt 9 | Sc 3 | PL 6 | Cr Ar 5 | Dt 2 | | | | |
| 9 | 4 | Gt 9 | Sc 3 | PL 6 | Cr Ar 5 | Dt 2 | | | | |
| 9 | 5 | Gt 9 | Sc 3 | PL 6 | Cr Ar 5 | Dt 2 | | | | |
| 9 | 6 | Gt 9 | Sc 3 | PL 6 | Cr Ar 5 | Dt 2 | | | | |
| 9 | 7 | Gt 9 | Sc 3 | PL 6 | Cr Ar 5 | Dt 2 | | | | |
| 9 | 8 | Gt9 | Sc 3 | PL 6 | Cr Ar 5 | Dt 2 | | | | |
| 10 | 1 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Dt | Cr Ar | Hums |
| 10 | 2 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Dt | Cr Ar | Hums |
| 10 | 3 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Dt | Cr Ar | MFL |
| 10 | 4 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Dt | MFL | Cr Ar |
| 10 | 5 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | MFL | Dt | Cr Ar |
| 10 | 6 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Hums | Dt | Cr Ar |
| 10 | 7 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Hums | Voc | Voc |
| 10 | 8 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Voc | Voc | Sc |
| | | | | | | | | MFL | Voc | Voc |
| 11 | 1 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Dt | Cr Ar | Hums |
| 11 | 2 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Dt | Cr Ar | Hums |
| 11 | 3 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Dt | Cr Ar | MFL |
| 11 | 4 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Dt | MFL | Cr Ar |
| 11 | 5 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | MFL | Dt | Cr Ar |
| 11 | 6 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Hums | Dt | Cr Ar |
| 11 | 7 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Hums | Voc | Voc |
| 11 | 8 | Gt 6 | Sc 4 | Pl 7 | | | Pe 2 | Voc | Voc | Sc |
| | | | | | | | | MFL | Voc | Voc |

Rooming Needs

[illegible]

Section Seven – Facilities Management Solutions

Introduction

The experience of the advisory team suggested that a typical PFI schools FM solution may not be appropriate for the Learning centre concept and that for budgetary and practical purposes, it would be appropriate to research an alternative approach to delivery of soft and hard services. The following table highlights the differences between a Typical School and a Learning centre.

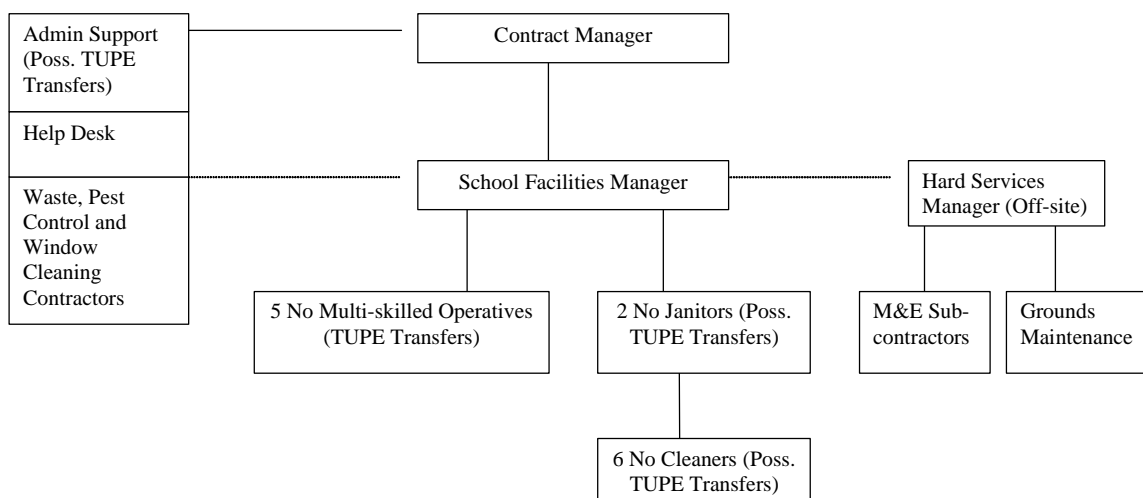
| Typical School | Learning Centre |
|--|---|
| Core School day with additional hours | Usage for up to 16 hours a day |
| Mostly educational use | Educational use with extensive, extended uses, community access and collocated services |
| Single use spaces with fixed furniture layouts | Multi use spaces, constantly changing serviced by technicians |
| 195 days per year | 365 days per year |
| Teaching staff | Learning staff |
| FM delivery staff | Learning centre staff |

The resultant service response therefore likely to be different

| Traditional Service | Exemplar Service Concept |
|-------------------------|---------------------------------|
| Caretakers | Multi-Skilled Operatives (MSOs) |
| Cleaners | Janitors |
| Cook/Kitchen Assistants | Catering Team |
| Security | Off-Site Security |
| Building Maintenance | Specialist Maintenance |
| Grounds Maintenance | Grounds Maintenance |
| Administration | Reception/Admin |

Exemplar FM Concept

In order to meet the particular circumstances of the Knowsley Learning Centres typified in the usage patterns noted in section 2 above, the following Management Structure Chart could apply. This is based upon the 1050 learning place facility template:



Section Seven – Facilities Management Solutions

Many components of a modern facilities solution will continue to be utilised such as a helpdesk, performance monitoring system, health and safety, asset management and maintenance planning systems. These are detailed in Output Terms in Volume 3A of the Output Specification. The following aspects of the exemplar system are detailed below.

Multi-Skilled Operatives (MSOs)

Due to the extend daily opening hours and weekend opening for school sports activities and public attendance at the Library and Sports Centre, each Learning Centre will have four to five MSOs assigned to it dependant on size and opening patterns. The opening patterns are articulated in Section 3B of the Output Specification in the Learning centre specific sections.

MSOs will be expected to 'open up' and 'shut down' each Centre half an hour before and after the stated opening times. One MSO will be required to work normal hours each school day assisting the duty MSO with two-handed work, undertaking reactive and routine maintenance and covering for absenteeism. Out of hours attendance will also be covered by the MSOs. All MSOs are the first line of security throughout the opening periods.

The day will begin with each Centre being opened up and a routine search of the buildings for any overnight disturbances. Members of the Catering Team will be arriving shortly after to begin their preparation work. Following a tour of the site and contact with the Help Desk, checking for any overnight requests, the duty MSO will be joined by the day MSO to begin preparing room layouts as per the day's schedule. Further layout changes will be undertaken throughout the day as and when required.

MSOs will be the first point of contact for any emergency or reactive maintenance requests. They will make safe and repair or replace any defective equipment within their capabilities but will call via the Help Desk for offsite assistance or specialists to attend should the problem be more technical.

Routine maintenance will also be undertaken during quieter periods of the day, again to levels that the MSOs can perform. Other day to day duties will include inter alia escorting of contractors, portage, low level churn, receiving deliveries and undertaking short deliveries to addresses within the contract, local small scale grounds maintenance including litter picks and security patrols, furniture erection/repairs, small scale decoration work.

Throughout the day MSOs will be available to support education staff with furniture moves or moving drama sets and setting out the seating either in rooms or in the restaurant.

MSOs will also prepare playing pitches such as positioning goal posts and corner flags. Initial dimensions and markings will be carried out by the Grounds Maintenance contractor but subsequent markings will be undertaken by the MSOs.

All MSOs will be contactable using bleeps and mobile phones and will have portable computer hardware to assist with maintenance, emergencies and reporting functions.

One MSO will act in a lead capacity and be responsible for the MSO team, its attendances, functions and any interfacing with other Centre management. The lead MSO will also be responsible for providing any reports, be it planned or unplanned and the content. He/she will also be the point of contact for any other contractor working on site and their associates and for monitoring progress and standards.

MSOs will also be required to provide support to other sites within the contract where additional manpower or expertise is required.

Janitors and Cleaners

Two Janitors will be employed at each Centre during normal opening hours. These attendances may be staggered to include an early start or late finish to assist access to areas of the areas that remain open during the first and last sessions of the day, depending on the usage patterns of the Centre.

Section Seven – Facilities Management Solutions

Janitors will be supported by a small team of cleaners that will attend site out of hours or where areas or zones are closed or locked down. They provide intensive cleaning programs to each area on a rotating basis.

Upon arrival on site Janitors will inspect all ablutions for cleanliness and sufficient consumables are present. They will then continue with the cleaning program in areas difficult to access out of hours such as the Sports facilities. Janitors will also undertake all low level window cleaning and attend to spillages, graffiti removal, infestations and emergencies as and when they occur. They will be contactable via the Help Desk using mobile phones and beepers.

Janitors will also be required to assist Multi-skilled Operatives as required and to assist the Catering Team with cleaning activities. All vending and servery areas will be regularly visited throughout the day, cleaned and tidied up and the vending machines checked for contents. Any replenishments will be notified to the Catering Team.

Janitors will be required to place orders, accept delivery and store consumables and the lead Janitor will be responsible for monitoring standards, reporting and supervising the cleaners and subcontractors. All deep cleans, high level window cleaning, pest control visits, waste contractor visits and other quarterly cleaning activities such as cleaning entrance mats will be managed and co-ordinated by the lead Janitor who will liaise with the Centre management and other parties.

The cleaning team will consist of approximately six cleaners that will attend site out of hours and provide a routine cleaning program throughout the establishment.

Catering Team

The catering provision to each Centre should be as a minimum at zero subsidy however with the right approach and innovation it is expected to provide a profit.

The Catering Team will be led by an experienced cook manager, supported by a deputy. Catering assistants in a number proportionate to the size of the Centre will undertake catering and vending duties accordingly.

Points of delivery include a main restaurant, satellite servery areas in Home Bases and the Sports Café.

Session One – 6.00 – 8.30am

The day will start before the first session starts with the preparation of breakfast food. Vending machines or satellite serving areas in the Home Bases and Sports Café will be stocked with fresh produce and preparation for the lunch menus will begin. Advertising of food offerings for the day will be advertised around the school through menu boards and the plasma TV system. A breakfast menu will be served in the main restaurant area.

All food deliveries will be early in the morning in order that fresh food can be purchased by staff and pupils with little or no deterioration in quality.

Along with the Multi-Skilled Operatives seating in the restaurant will be arranged, water containers filled and compliments set out in readiness.

Session Two & Three– 8.30- 4.00pm

During the session satellite serving areas in the Home Bases will sell sandwiches, baguettes, snacks and drinks. These sales will be available throughout the session, with staff migrating to the main restaurant and sports café according to where the demand occurs. A hot food service will be served in the main restaurant from 11.30 to 2.00pm, with a healthy options menu available in the Sports Café. MSO's will assist with the setting out of further tables and chairs as required into overspill areas adjacent the restaurant.

The Catering Team's efforts will be centred on the restaurant and Sports Café until the end of the hot food service. The team will then be focussed in cleaning up, making up orders for the following day,

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report writing and paperwork. MSOs will help return the restaurant tables and seating back to their original places allowing the space to be used for something else.

From 2.00pm the Home Bases will continue to sell sandwiches, baguettes, snacks and drinks.

Hospitality will be available throughout the Centre and can be ordered through for special events via the Help Desk.

Sessions Four and Five – 4.00-10pm

During this time the Home bases will continue to sell sandwiches, baguettes, snacks and drinks up until the end of session four when the Home bases close down for the night. A catering service of snacks and refreshments will continue to be available in the Sports Café until closure of the Centre. Vending areas can be opened up to service particular events or to service meetings.

Sub Contractors

Sub contractors will be contracted to carry out various specialist activities such as pest control, waste, grounds maintenance, security and building and plant maintenance.

Co-ordination and liaison of these contractors will be through the lead Multi-Skilled Operative (MSOs) at site level and through the Facilities Manager at management level and above.

Sub contractors will attend site either for planned routine maintenance or emergencies. Sub contractor staff will be vetted and all company procedures routinely checked for quality and maintaining standards by the Facilities Manager and MSOs.

Visits will be by appointment only except for emergencies and any un-vetted sub contractor staff will be escorted by a MSO or Janitor.

Help Desk

The Help Desk will be located on one of the sites and manned from 08.00 to 18.00 hours. It will be the hub for all reporting to and contact with each Centre's management, and also with the FM team and sub contractors. Contact with the Help Desk will be through all normal communicative channels and each enquiry will be logged with data required to help assist the process and PayMech calculations using menu screen prompts.

Out of hours contact will be maintained via an off site Help Desk that will be well versed in the systems and procedures operated on the contract.

The Help Desk will be the single point for receiving all routine requests and for emergencies. Each routine request, be it for moving furniture, hospitality or reporting a fault, will be recorded on the systems and the correct member of staff made aware of the request in a timescale dependent upon the nature of the request. Each enquiry will be monitored with regular updates given back to the originator throughout the duration before closure.

Monthly reports will be generated by the Help Desk in a format to be agreed that will assist the Authority to monitor standards and check calculations for the Payment Mechanism formula.

Software shall be selected in order that the hand held devices operated by the MSOs can download maintenance and repair information and upload daily schedules and other information relevant to services to be undertaken.

For emergencies requests, the Help Desk will contact MSOs and Janitors via the use of beepers or mobile phones for immediate action to resolve the problem.

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The Help Desk Operators will be well trained so that they can use their initiative when processing day to day requests and co-ordinate administrative processes and procedures without supervision. As the clients first point of contact they will be well presented and trained in customer services.

Budget

The above structure was costed and the resulting budgets for each learning centre factored into the financial model for the project,