Cobalt

Cobalt
The First 10 Years

This book is dedicated to Guy Marsden, Piet Pulford, David Ashall, Simon Davies, Scott Ashall, Mark Ashall, Gerry Hannon and Roger Williams of Highbridge Business Park Limited. Their professionalism, hard work, commitment and good humour made the Cobalt project possible.


John
Coatsworth

Cobalt
The First 10 Years

Cobalt Business Park is the hub of the regeneration of North Tyneside itself. Our ambition to be the best place in the country to work, play, stay and bring up a family is epitomised by our commitment to this venture.

Our headquarters on the park are typical of the quality of office and business accommodation that is required in the 21st century and is a signal of our determination to become a modern, forward looking, local authority. The 1,600 staff based here experience the high standard of buildings and accommodation developed on the park.

The success of this park, the geographical centre of North Tyneside, encourages business to the area, encourages inward investment and people to move here to live and work. We are proud in North Tyneside to be part of this development and hope this success will continue and make it the premier business park in the country.

Our thanks go to our partners, all of whom have played their part in making this happen. We see Cobalt as part of North Tyneside and North Tyneside as part of Cobalt.

Andrew Kerr
Chief Executive, North Tyneside Council

the origins, planning and evolution of a major development

Foreword

For Ryder, the Cobalt project has been an act of faith.

Our faith in ourselves, and the belief of the Tyne and Wear Economic Development Company (TWeDCo) and Highbridge Business Park Limited - a joint venture between Highbridge Properties and Ashall Group - that we could do the job. We like to think that we justified their trust.

TWeDCo, which put the entire project in motion, found itself on the receiving end of contacts from two persistent architects from a small firm. Paul Seymour and I, with our team, had a lot to prove and only a little previous experience in the field. I think it says a lot for TWeDCo that they saw beneath the surface and realised that we had the skills, energy and ability to take a blank sheet of paper, and a windswept, derelict, brownfield site, and see what it could become.

Highbridge Business Park Limited, which took on the challenge of delivering one of the finest sites of its kind in Europe, shared that faith. Over the ensuing 10 years we have built an amazing partnership that has always been professional and demanding but also profoundly educational.

Highbridge Business Park constantly challenges us to create new forms and implement new technologies, and we like to think that we have given in results as good as we have got in terms of tough briefs and tight deadlines. Working with talented engineers and dedicated construction companies, we have all pulled together to deliver buildings which look good and inspire those who work in them.

The work is not over. New challenges in the market, the habitat and sustainability are making us ask new questions. Enterprise Zone deadlines mean that we also need to keep an eye on the calendar. But today we all feel more confident and adventurous about the designs that are necessary. The period from now to completion will see Cobalt become the UK's largest office park and a leading European business destination.

Peter Buchan
Chief Executive, Ryder Architecture

Introduction

As leader of Ryder's Cobalt team I am proud to have spent the last 10 years working with some of the most talented and committed people in UK architecture.

Working with Highbridge Business Park is always demanding but, like all positive effort, the rewards make the effort worthwhile. Highbridge raises the bar each time.

So we always hit the ground running on each project and try to make every building better than the one before, maximising natural light and views, creating signature buildings which help the organisations who work in them improve their performance.

Once the building started, the pace has never relented. To date we have created over 1 million square feet of office accommodation. While we were realising a design on site, our colleagues would be ramping up plans for the next. On many occasions Highbridge built speculatively, at other times we worked to the end user's detailed brief.

Delivery of each project has followed a similar programme - production of the outline sketches in November followed by construction work commencing on site in April.

I am glad to say that we have never missed a delivery date, never exceeded a budget. Our people work creatively and in collaboration, always striving to bring something new to make every design special. It is to the credit of Highbridge Business Park that we enjoy this flexibility.

The wider Cobalt team – consultants and partner organisations – is listed here too. Including David Scorer, Alan Johansen and Andrew Kinnear of contractor Bowmer & Kirkland - without their contribution over the last six years our designs would not have been realised.

The story of Cobalt is also the story of rapidly developing technology, which now allows us to design and visualise buildings with an accuracy and level of detail we could only dream of 10 years ago.

Over the last 10 years, clients' needs and specifications have changed significantly. In the next few years we expect to see increased requirements to reduce running costs and improve sustainability. These demands will affect mechanical and electrical engineers as well as architects. Some of the fruits of the new thinking are already beginning to emerge in the current crop of buildings at Cobalt.

The Cobalt community is now established and continues to develop. The buildings relate to each other to create a coherent development. Excellent public transport provision means the site is accessible and connected. The landscaping complements and enhances the public realm. In short, Cobalt makes sense.

These have been 10 exciting years for Ryder and everyone involved in the Cobalt project. We look forward to the future.

Paul Seymour
Director, Ryder Architecture
Cobalt project leader

Masterplan

Plot	Gross Internal Area (GIA) square feet	Page
1	50,469	66
2	118,953	72
3	105,774	18
4	Future development plot	--
5	75,551	28
6	96,828	44
7	Future development plot	--
8	Future development plot	--
9A	120,601	114
9B	Future development plot	--
10	--	--
11	Future development plot	--
12	112,904	36
12A	64,846	52
13A, B and C	95,135	98
14	54,143	106
15A	36,006	80
15B and C	106,267	48
16	139,392	86, 120
21	118,792	130
22	Future development plot	--
23	Future development plot	--
24	Future development plot	--
25	Future development plot	--
26	Future development plot	--

1997
Preparing the ground

In April 1995, Ryder – then Ryder Nicklin – was invited by the Tyne and Wear Economic Development Company (TWeDCo) to study the development potential of the Hadrian Industrial Park and prepare a report.

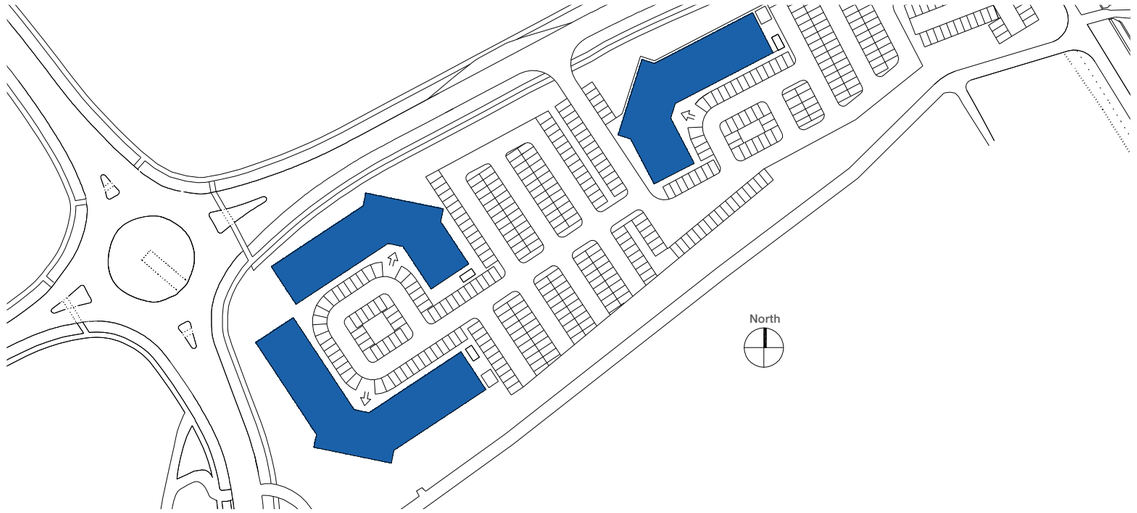
The Hadrian site had originally comprised some 257 acres until the 103 acres which formed Hadrian Business Park South were sold in 1995. Of the remaining 154 acres, 40 had been allocated for use as a countryside park. This left just over 114 acres of greenfield development land. Scheduled for use by large industrial users this area was known as Hadrian Business Park and included some 50 acres which had been designated as an Enterprise Zone.

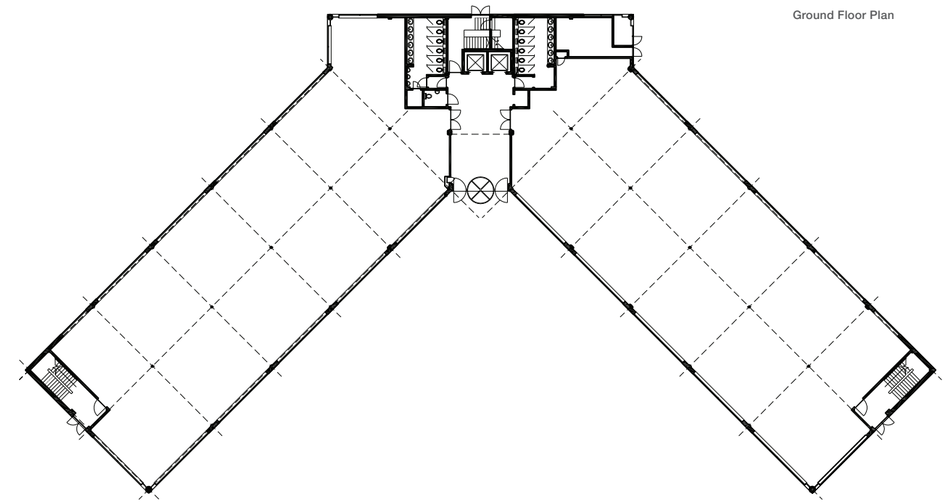
Challenges
Five disused mine shafts ran beneath Hadrian Business Park as well as a high pressure gas distribution pipeline. Above ground a number of power supply cables and bridlepaths crossed the site.

For any development to become feasible it would be necessary to stabilise the shafts and re-route the other obstacles. In late 1996 applications were made for the necessary consents. In early 1997 a planning application was made for new roads and bridlepaths. The necessary consents followed by the end of the year.

As this essential preparation continued, Ryder worked on a number of designs and feasibility studies for the infrastructure enabling works and subsequent developments. By the end of 1997 this stage was complete and responsibility for the development was assumed by Highbridge Business Park Limited. Contractor Tilbury Douglas, who later became Interserve, was appointed. Work to create the north/south link road and countryside park commenced.

1997
Cobalt 3





Working with Highbridge Business Park, Ryder produced the initial design for Cobalt 3 in November 1997.

This plot, which was located alongside the eastern entrance, used the existing road network and was separate from the remainder of the park. It therefore could be developed independently, without compromising the masterplan.

Enterprise Zone and other planning approvals were secured for the buildings at the start of 1998. Highbridge Business Park, which had renamed the development Cobalt, was determined that Cobalt 3 should set the standard for the rest of the project, with adequate car parking at the outset pending provision of improved public transport.

The building layouts are L-shaped, with 15 metre floorplates and courtyard entrance spaces. Each building has a small double height entrance space as a common reception area, and corner features which house core facilities and ensure vertical circulation.

Flexibility is integral to the buildings, as it enables them to be adapted to the needs of a broad range of tenants. They can be divided by wing, floor or a combination of both, and have floor to ceiling heights of 2.7 metres. In subsequent buildings this was increased to 3 metres and window areas increased in size.

The buildings at Cobalt 3 are based on steel frames with concrete ground slabs and precast concrete upper floor slabs. External walls feature cavity construction with buff facing bricks. Large windows are punched into the brickwork and use green tinted double glazing in grey aluminium frames. A band of metal faced composite cladding panels forms a fascia just below the roof line that is expressed with a metal bullnose feature. Mill finish aluminium standing seam sheeting covers the entire roof.

This combination of techniques, colours, materials and textures created a palette of materials and components for use in subsequent stages of the project.

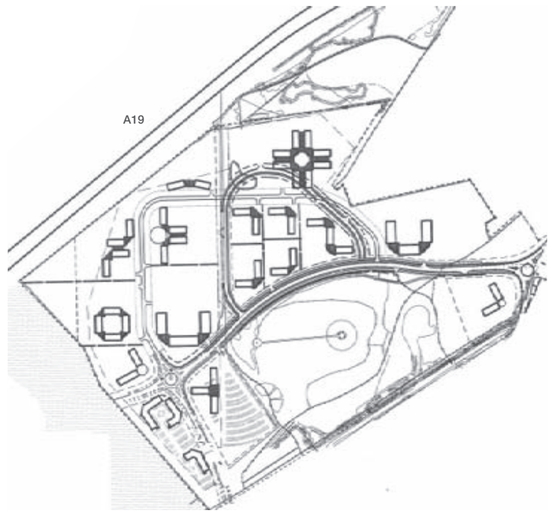
The buildings are heated and cooled using a four pipe fan coil system. All plant is located in a combination of internal boiler rooms and external, screened areas for the chillers. The central plant room has a curved feature roof.

Cobalt 3 at a glance
NIA 90,154 square feet
GIA 105,774 square feet
Net : Gross 85%
Parking spaces 329
Parking ratio 1 space to 23 square metres GIA

Contract details
Commenced April 1998
Completed January 1999
Contract programme 40 weeks

Building 1 40,033 square feet, 3 storeys
Net : Gross 87%
Building 2 33,171 square feet, 3 storeys
Net : Gross 84%
Building 3 19,050 square feet, 2 storeys
Net : Gross 83%

1998
Masterplan



In the spring of 1998, Ryder started to work with Highbridge Business Park to develop the masterplan for the rest of the Cobalt site.

At this time the Cobalt site was bounded by the A19 to the west, the access road and countryside park to the east, West Allotment Village to the north and a manufacturing plant to the south.

A new access road, running north/south, was under development to provide access to the site from the north and south east. It would also contain all main underground services for the site.

Challenges and topography

Building development near the overhead power distribution cables was restricted by statute but the lines could not be re-routed. The team began to consider moving the cables underground. Statutory regulations for the gas main also restricted development potential. The five disused mine shafts needed to be dealt with.

Apart from slight variations in level the site was overall relatively flat. The countryside park to the east formed the strongest feature and became a focal point for the park.

Defining the masterplan

The masterplan set the framework for the Cobalt project. It established the guiding principles of flexibility, to accommodate changes in use and evolving tenant requirements, and environment, to establish a coherent, efficient and attractive setting for occupants.

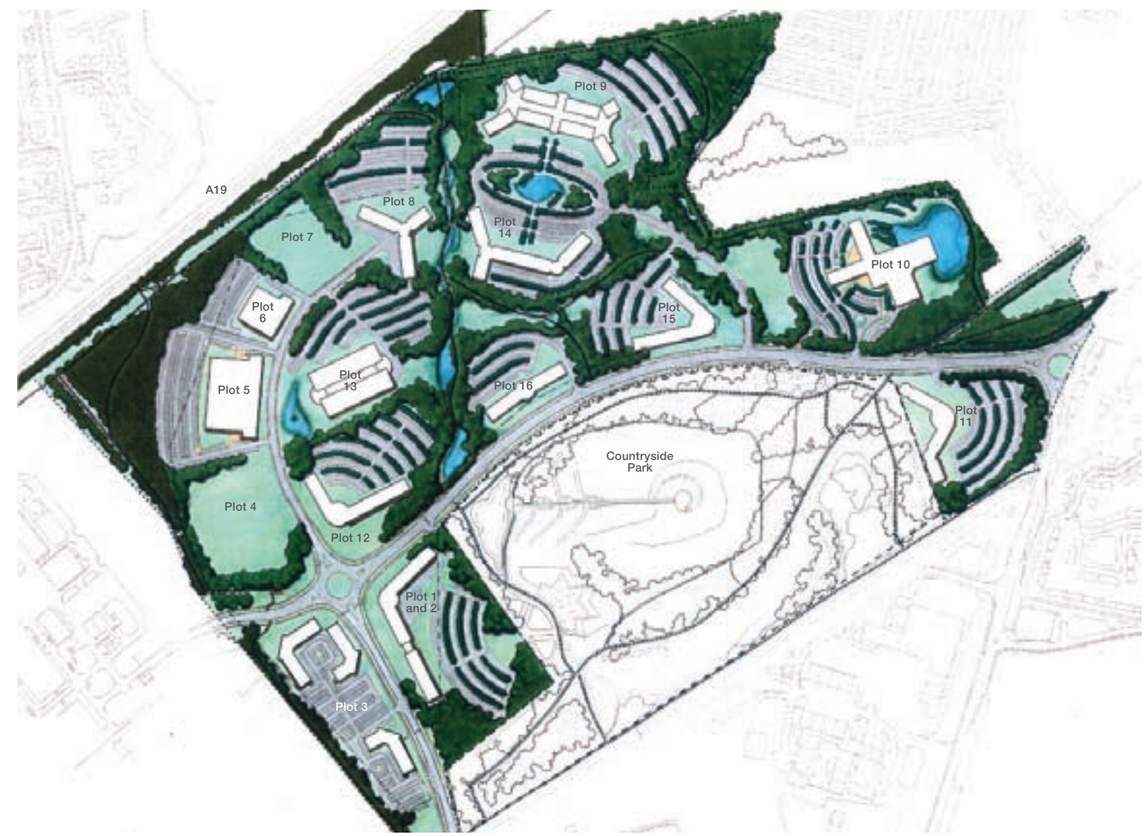
Within these broad guidelines, which called for a delicate balance between control and flexibility, the masterplan also addressed the physical constraints imposed by access, services and mineshafts. The end result was a strategy which enabled Ryder to work with Highbridge to create a range of well proportioned plots with excellent development potential.

Evolving the masterplan

It was proposed that access to the area north of the power cable ('Northern Zone') should be via a spur road which would follow the area excluded from development by the gas pipeline. The 'Southern Zone' would be accessible via the existing roundabout. After further discussion the spur road layout was subsequently changed to a loop.

Highbridge's brief included a simple yet effective ground rule, that the buildings should front onto the access roads. This would make them highly visible. The main facades of the buildings were focused on the countryside park providing an orbital and integrated layout. The plot layout also allowed feature sites to be created at changes in direction and key gateways. Car parking was to be located out of sight, behind buildings, and laid out to create soft natural contours. These would blend into the landscape and minimise the visual impact.

The building forms would emphasise key gateways within the site. The spaces between buildings would be used to create a sense of place and an attractive overall environment.




Cullercoats
Tynemouth
Countryside
Park

1998
Landscaping

A significant amount of landscaping had already been undertaken around the site. The north/south access road incorporated attractive lighting, footpaths and cycleways. The countryside park, with its footpaths and bridleways, was densely planted with a rich variety of trees and shrubs.

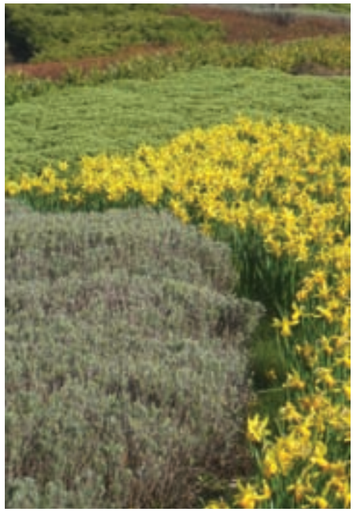
Further landscaping was developed to a similar standard. Planting was used to enhance the buildings and line the footpaths and bridleways, which became attractive features of the finished site.

To free the layout from the constraints of the existing public rights of way, some of the existing bridleways and footpaths were re-routed to maintain a viable and practical network. These were then segregated from access roads and landscaped to create attractive corridors. The new bridleways also linked into the established bridleway network around the park.

The principal objectives of the landscape strategy were to create recreational opportunities and secure a wildlife habitat.

Within the Enterprise Zone, protected wildlife and recreation corridors were established along the route of the underground cables, to the rear of the allotments and along all the boundaries. These enable wildlife to move between the park and the adjoining countryside.

Outside the Enterprise Zone, it was agreed that the Cobalt project would deliver as much environmental benefit as possible. After consultation with the local authority's ecologists, the masterplan made provision for a number of landscaped areas including woodland and grassland habitats. A further aim was to enhance the value of the area for amphibians, so wetland and water habitats were key elements.



1999
Cobalt 5
The speculative customer contact centre


Early Visualisation

Every masterplan develops as comments are received, objections raised, the market evolves and the economic cycle moves on.

In the spring of 1998, Highbridge Business Park began to consider the development of custom built customer contact centre buildings to accommodate the emerging market for this business. Work on feasibility studies began and, as the year developed, several national organisations expressed an interest in Cobalt.

Ryder began design work on a number of schemes and it quickly became clear that most installations would require large, 'loose fit' spaces. One of these was to become the first Orange customer contact centre.

Considerable interest in Highbridge Business Park's promotion of customer contact centres resulted in design of a flexible building of 75,000 square feet.

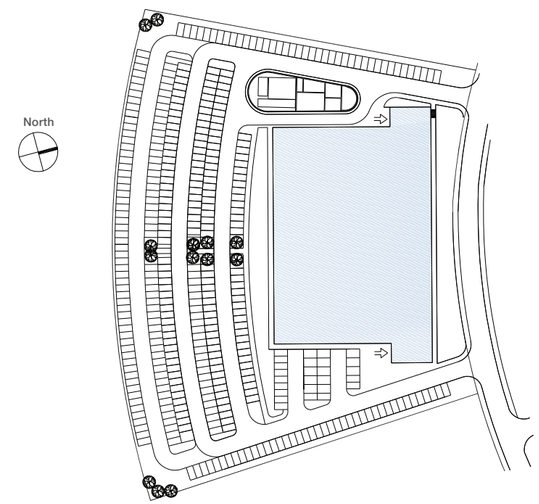
This speculative building, which would provide space for up to 800 staff, had to be completed on a short timescale. The floor area was to be a single space, with minimal columns, and capable of being divided 60:40 into two smaller spaces. One parking space per 27 square metres GIA was specified and, as some of the parking area lay outside the Enterprise Zone, planning approval was required.

The solution that emerged consisted of a generously proportioned double height space, surrounded on three sides by a mezzanine deck. A simple brick clad 'box' of two storeys fronted the service road and accommodated part of the mezzanine floor.

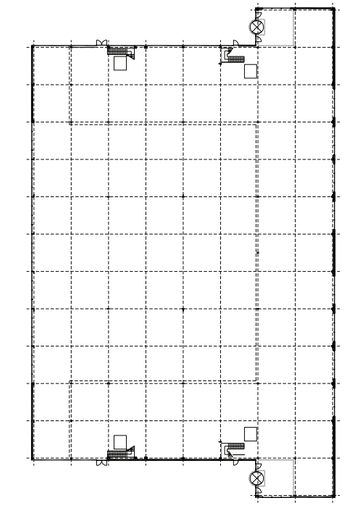
To meet the tight deadline, most of the major single volume was enclosed using composite panels. To reduce the impact on views from the road, the brick box was extended sideways, while double height entrance spaces were included to provide drop-off points for staff facing the rear car park.

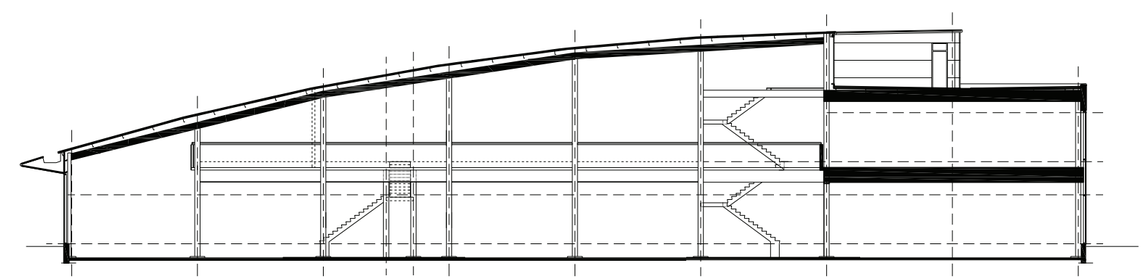
The main working area rises from a single storey at the rear to almost three storeys at the front. At its highest point, the curved roof encloses the plant rooms. The gable edge of the roof features a metal bullnose feature with pronounced overhangs for solar shading. Windows comprise continuous horizontal strips to the sides of the mezzanine floor. At the rear they extend from floor to eaves below the large overhanging roof.

Heating and ventilation are provided via a displacement air system fed from floor plenums.



Site Plan


Ground Floor Plan


Section

Cobalt 5 at a glance
GIA 75,551 square feet
Parking spaces 259
Parking ratio 1 space to 27 square metres GIA

Contract details
Commenced April 1999
Completed September 1999
Contract programme 26 weeks

1999
Cobalt 5 evolves
The first Orange customer contact centre

In June 1999, as work continued on the speculative customer contact centre at Cobalt 5, Orange agreed to take the building and asked Highbridge Business Park and Ryder to adapt it in time for occupation that September.

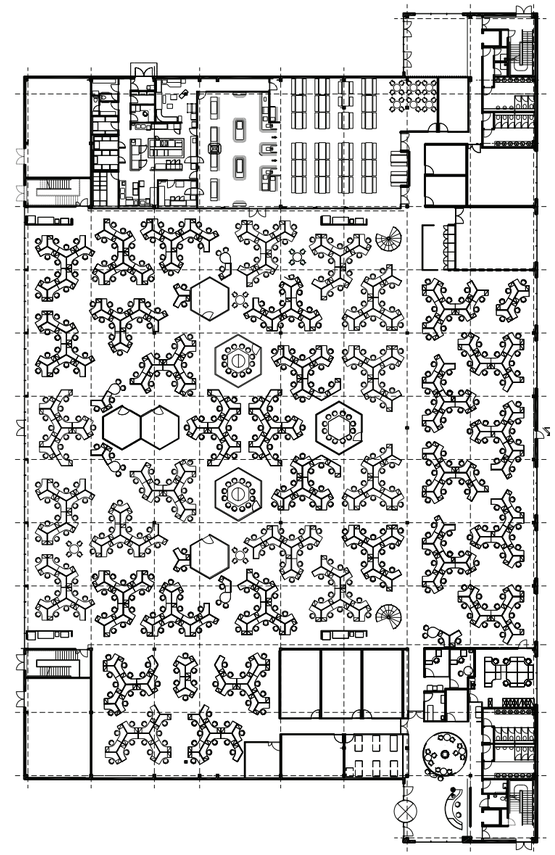
Occupancy was to be increased from 800 to 1,000, a large staff restaurant with kitchen was to be included, and 415 parking spaces were required instead of 259. A stand alone energy centre was added to meet Orange's power requirements.

The use of flat screen monitors and smaller desks enabled occupancy space standards and operational team layouts to be maintained. The design was vetted by Orange's feng shui adviser and several features included to his specification.

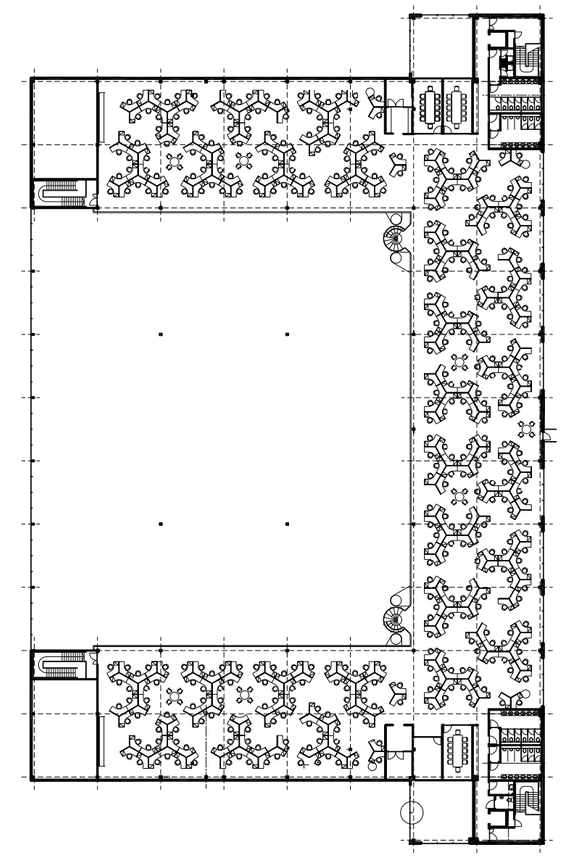
As part of the agreement with Orange, Highbridge Business Park provided temporary accommodation on the Cobalt site to enable Orange to recruit and train staff before the new facility was completed.

The Orange customer contact centre, Cobalt 5, at a glance
GIA 75,551 square feet
Parking spaces 415

Contract Details
Commenced April 1999
Completed September 1999
Contract programme 25 weeks



Ground Floor



Mezzzanine Floor


orange™

2000
Cobalt 12
The first Procter & Gamble building

By the beginning of 1999 the Cobalt project was attracting national attention. Highbridge Business Park's marketing initiatives caught the eye of several companies looking to relocate. One of these was Procter & Gamble.

During that summer Procter & Gamble asked for a building to be created based on the organisation of its headquarters in Brussels. In September the design team visited the Procter & Gamble Brussels office.

The brief for the new Procter & Gamble building at Cobalt 12 was to accommodate 500 staff in one of the first of a new generation of global service centres. These would support activities in Europe, the Middle East and Africa.

The client originally required a development in two stages, each of 100,000 square feet. The buildings would form a T-shaped structure on completion. A full height atrium was added over the main entrance.

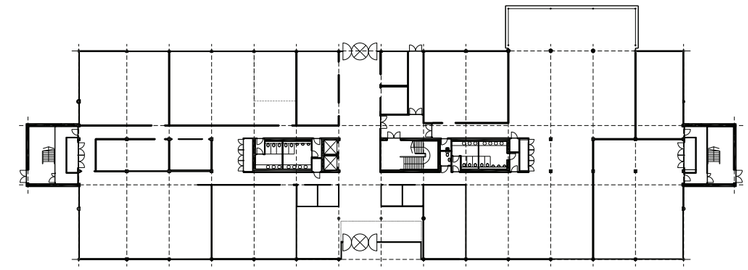
On the ground floor the design called for a conferencing suite, restaurant and reception area. Designed to meet Procter & Gamble's exacting standards, the building was to be comfort cooled throughout, with plant accommodated in a continuous roof-level spine.

A high level of prefabrication, including factory finished washroom pods, was essential to satisfy the client's deadlines. An underfloor void for services distribution was not required because a full cable management system is built into Procter & Gamble's standard desking.

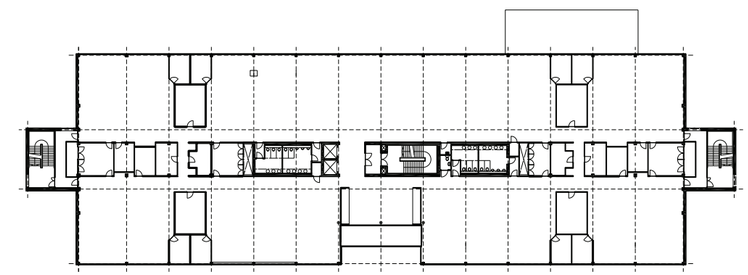
The main body of the building was clad with metal faced composite panels to help reduce the build time, with brickwork restricted to the stair towers at each end. The windows, which form continuous horizontal ribbons using green tinted glass, occupy approximately the upper two thirds of the walls at each floor level. The brick stair towers support the external spine that runs across the roof of the building.

The ground floor windows are glazed from floor to ceiling to separate the base and the upper floors. The main entrance and atrium are marked by a full height slot of curtain wall. The roof line is accentuated with a metal bullnose feature and an exaggerated overhang.

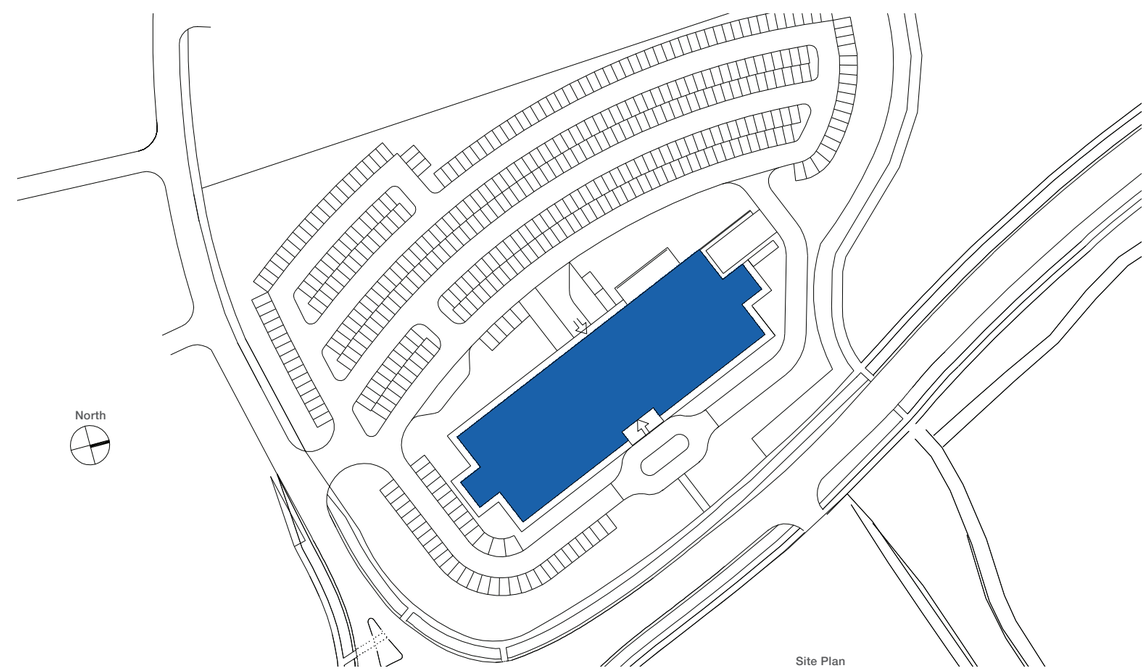
Cobalt 12 was the first four storey structure in the Cobalt project. To satisfy requirements for the Enterprise Zone, the overall height had to be no greater than 20 metres. This was achieved with 150 millimetres to spare.



Ground Floor



Upper Floor



Site Plan

The Procter & Gamble building, Cobalt 12, at a glance
NIA 96,500 square feet
GIA 112,904 square feet
Net : Gross 87%
Parking spaces 420
Parking ratio 1 space to 25 square metres GIA

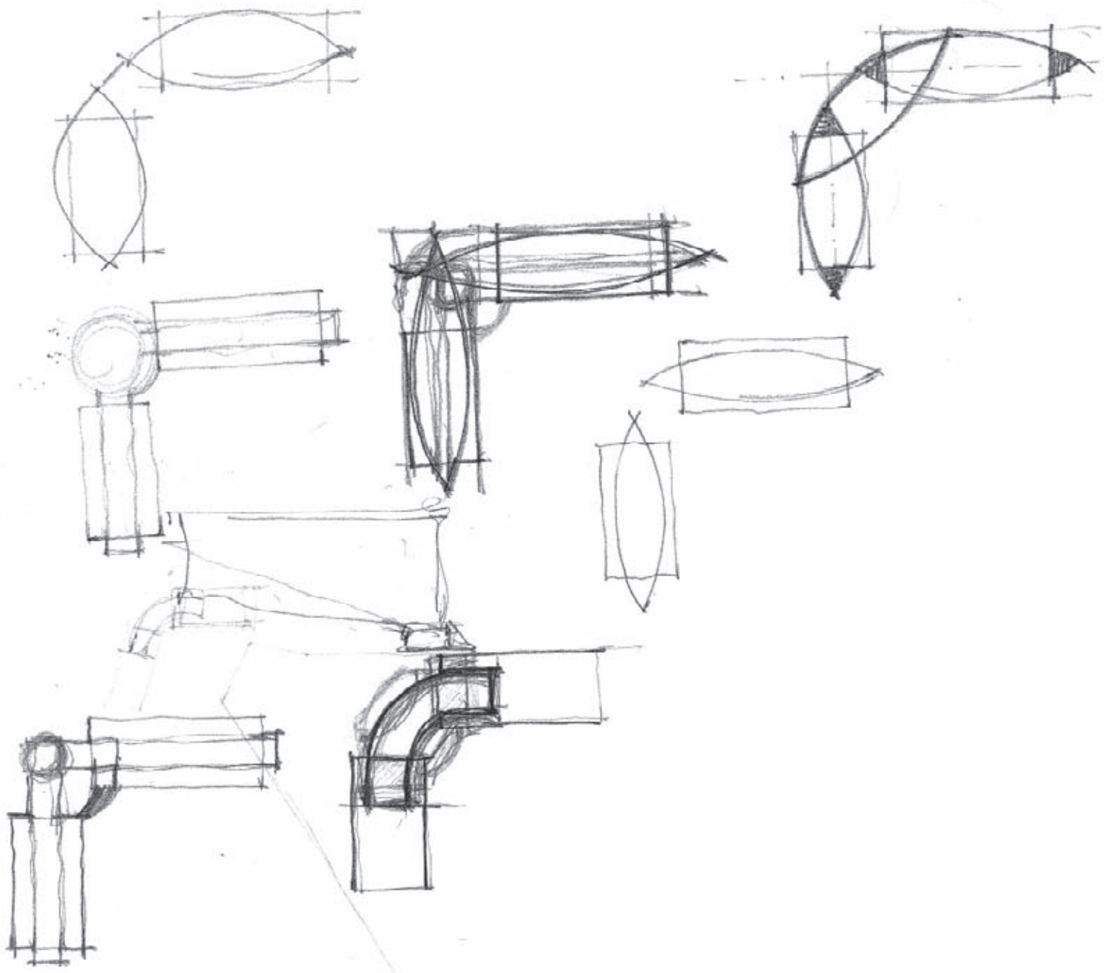
Contract details
Commenced February 2000
Completed February 2001
Contract programme 50 weeks

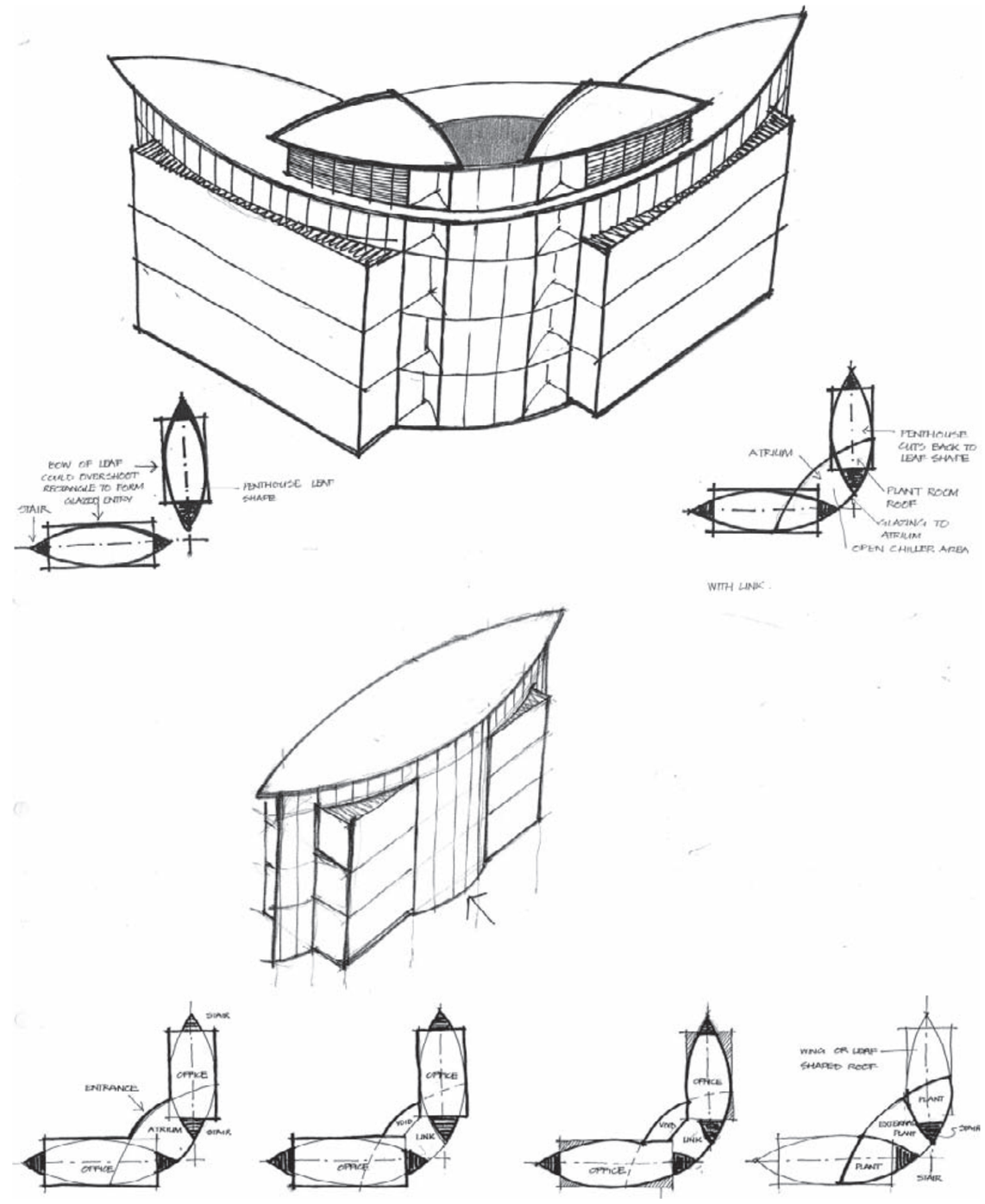
2000
Snapshots
Other developments in 2000

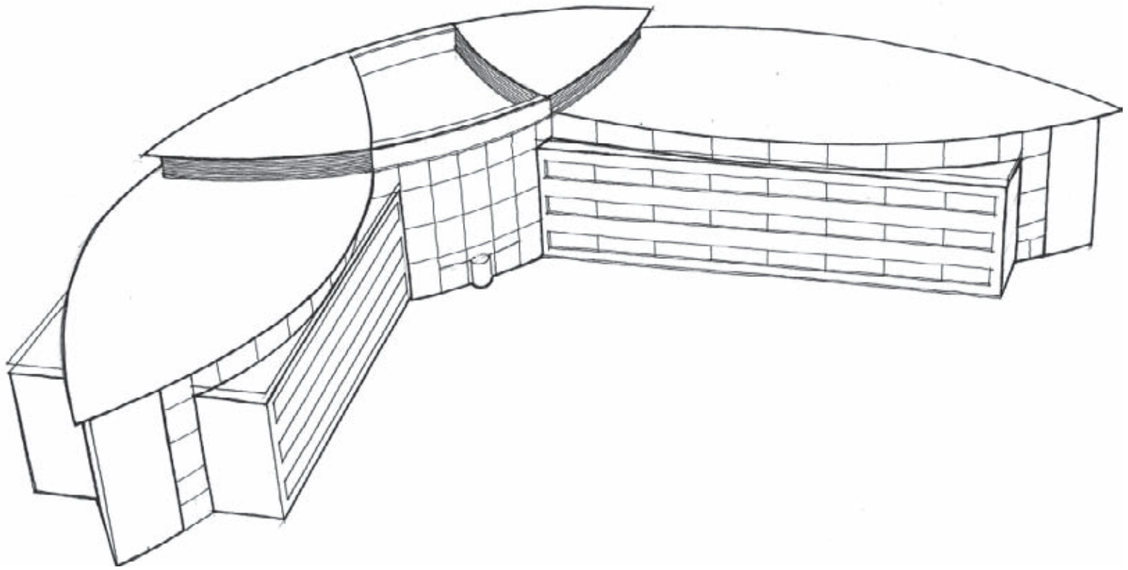
De Vere Hotels and small scheme proposals
De Vere Hotels expressed a desire to build a Village Hotel and Leisure Club at Cobalt 10 to their own design. The site enjoys a prominent location alongside the main entrance road into Cobalt and has a pleasant outlook over the Swallow Hole pond.

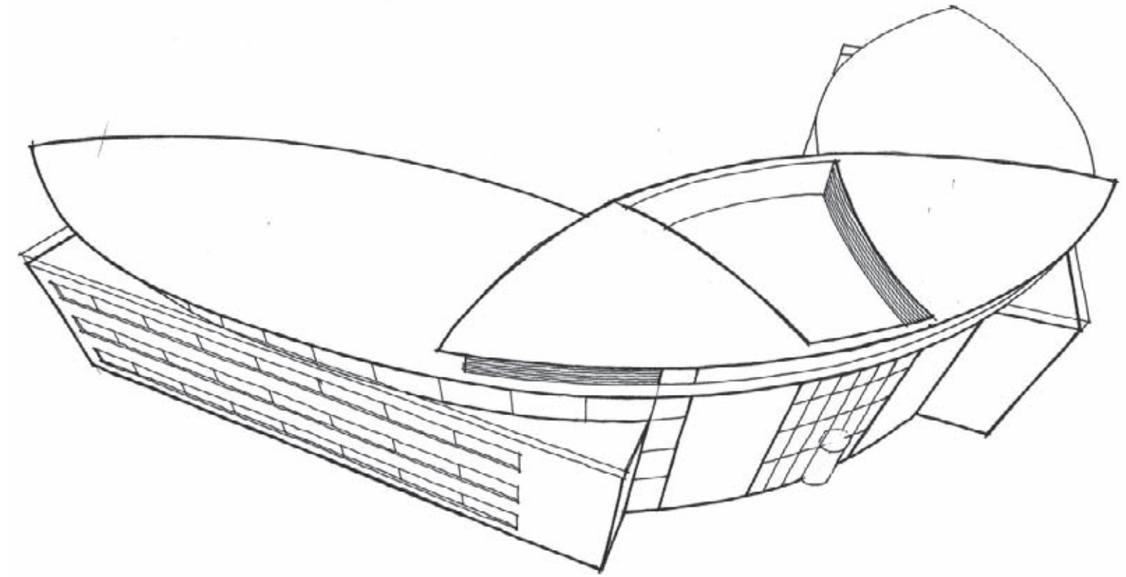
Before the project could go ahead it required a variation to the existing planning permissions. Negotiations on this point began during the summer. Pending resolution, Ryder prepared schemes for the shops, security office, marketing suite and crèche that would be included on adjacent land.

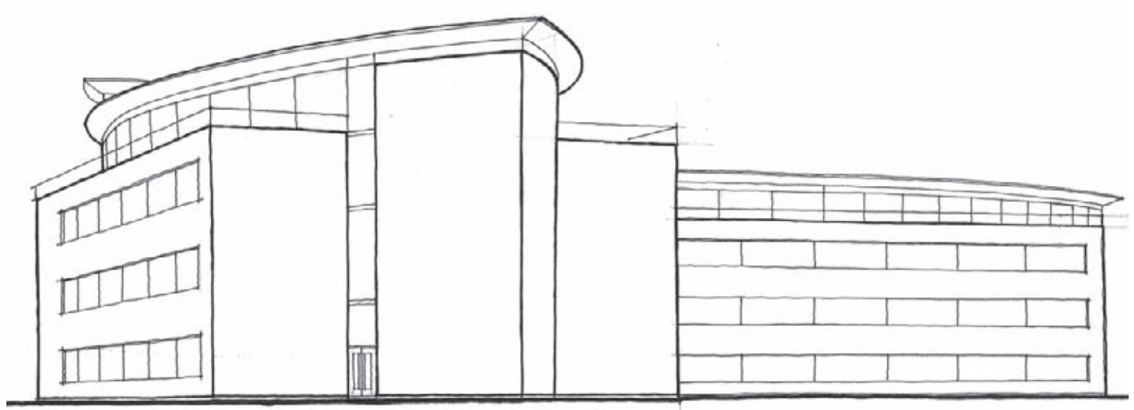
Cobalt 15
Highbridge Business Park presented Ryder with its brief for Cobalt 15. The requirement was for a distinctive building addressing the northern entrance to the park. It was to be a flexible solution of two wings, each with dedicated vehicle access and parking areas. Ryder's initial design was presented with 3D sketches and instantly approved for detailed design.

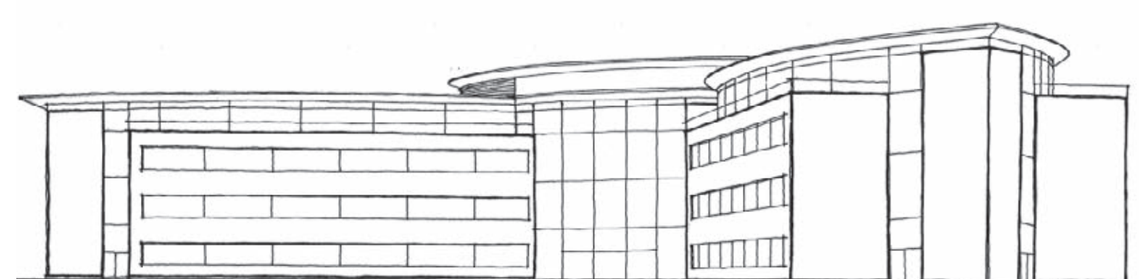












2001
Cobalt 6
The second Orange customer contact centre

Following the success of the first contact centre Orange issued a specification for a second centre at Cobalt 6. Once again it would accommodate 1,000 people.

Ryder took a brief directly from Orange to develop a bespoke building.

The solution was of two storeys. It featured large open floorplates either side of a top-lit central spine which contained core facilities, plant and ancillary accommodation.

The aluminium roof, of standing seam construction, was laid to a gentle curve to provide the building with a distinctive appearance which echoed design features from the first Orange building.

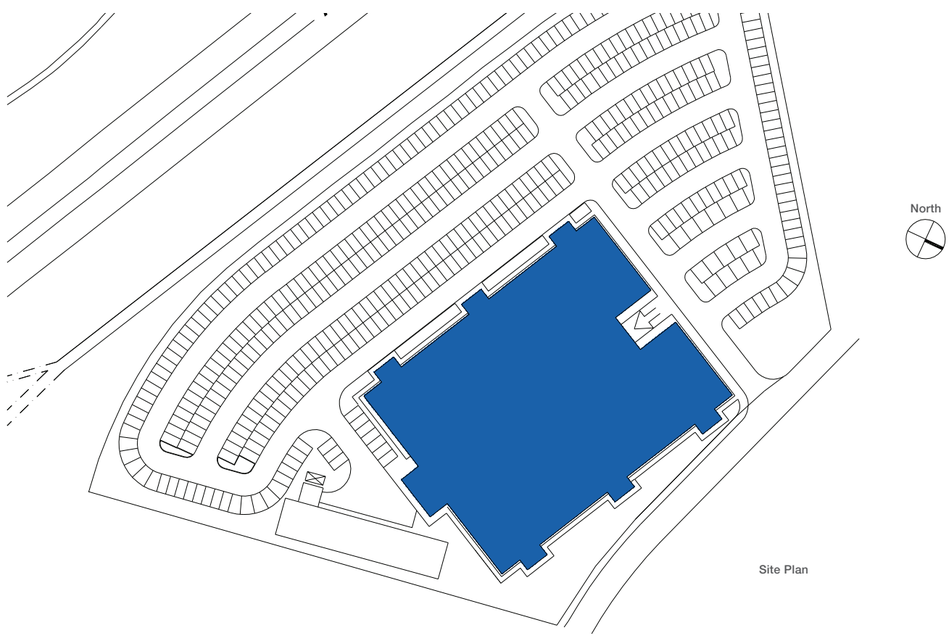
The building is entered via a generous, double height reception at one end of the spine. The entrance space is lit and emphasised by a full height panel of curtain walling.

As in the first building, there is a sustained emphasis on providing an attractive work environment with controlled natural light and good exterior views. The ceilings are 3.5 metres high, enhancing the quality of the daylight and increasing outward views enjoyed by staff.

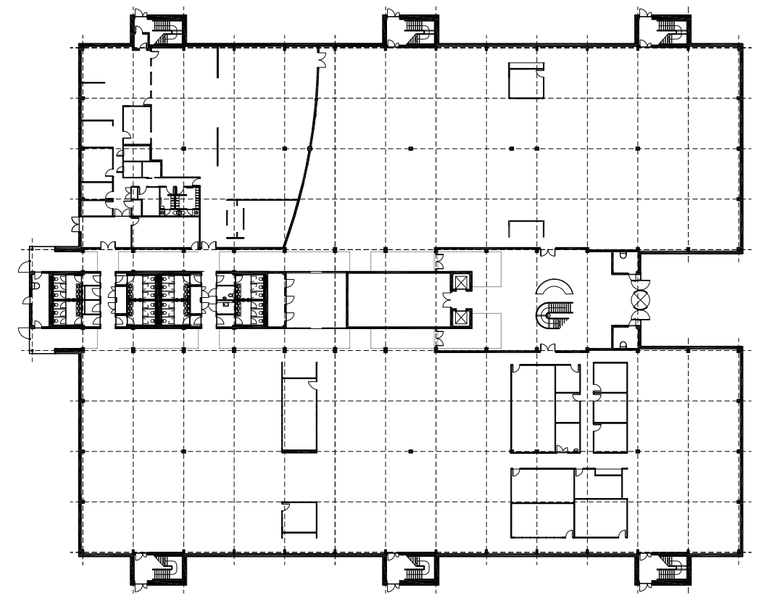
The building is clad in composite panels and features horizontal ribbon windows. The only visual interruptions to the facades are created by the escape staircases, which are enclosed by composite cladding with an external skin of brickwork.

Once again the use of composites and prefabricated units enabled the structural works to be completed quickly and to a high standard. Interior works could therefore commence earlier.

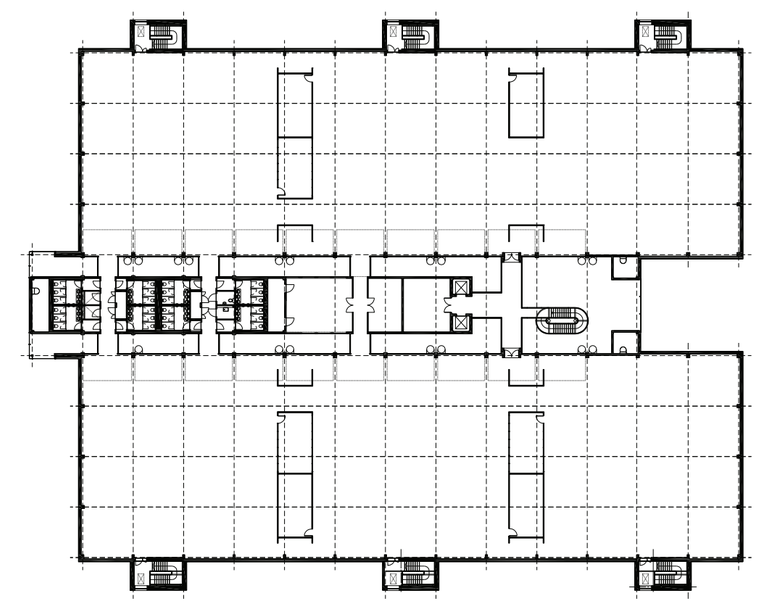
The building is heated and cooled by a displacement air system using floor plenums, with a stand alone energy centre.



Site Plan



Ground Floor



First Floor

The second Orange customer contact centre,
Cobalt 6, at a glance
NIA 86,876 square feet
GIA 96,828 square feet
Net : Gross 90%
Parking spaces 474
Parking ratio 1 space to 19 square metres GIA

Contract details:
Commenced September 2000
Completed July 2001
Contract programme 42 weeks

2001
Cobalt 15B and 15C


Early Visualisation

For this plot Highbridge Business Park specified a building with two components, to be linked by a feature which would enhance the primary northern entrance to the business park.

The design proposed by Ryder comprised four storeys of office accommodation with plant accommodated above. The form of the building was composed of two three storey orthogonal wings which would contain most of the office space. For the first time on the Cobalt scheme, the building would be based on the larger 22.5 metre floorplate.

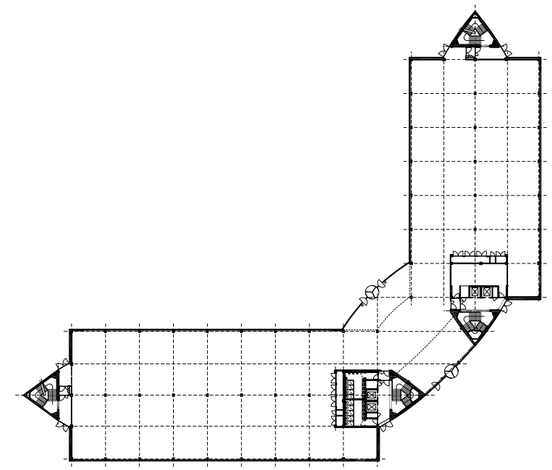
Each of the two wings is overlaid by a fourth storey in the form of a leaf, providing fully glazed penthouse offices. The ends of the leaf extend beyond each end of the three primary accommodation levels, providing an enclosure to the stairs. A further overlaid leaf form connects the two wings, providing a fully glazed link at roof level.

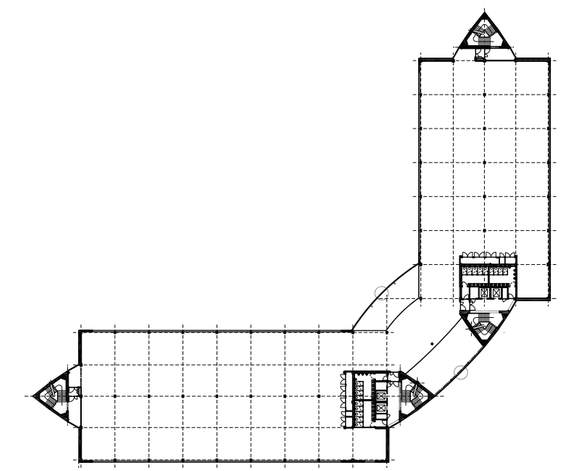
Each wing has a dedicated car parking entrance with independent access from the road. Double height entrances from both the roadside and the car park can be separately dedicated to either wing. Core facilities are also split so that each wing can be completely self-contained with dedicated lifts, stairs and toilet facilities. The building can be split vertically or horizontally with different occupiers at each floor level.

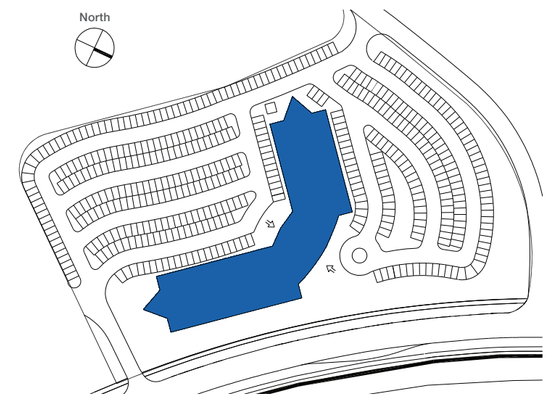
To maintain continuity with earlier buildings, the primary wings of Cobalt 15 are clad in composite panels, with horizontal ribbon windows to each floor level. Both the front and rear façades of the linking element have large areas of curtain walling to identify the entrances.

Separation to the staircases is provided by vertical slots of curtain wall. The staircases are expressed with vertical cladding panels and the only brickwork is to up to damp-proof course level. The curved curtain walling to the top floor runs from floor to ceiling and is partly protected by a curved brise soleil which is used instead of the exaggerated roof overhang on previous buildings.

Ceiling heights throughout the office areas are 3 metres. The building is heated and cooled via a four-pipe fan coil system. Raised floors with a minimum void of 150mm are provided throughout.


Ground Floor


First Floor

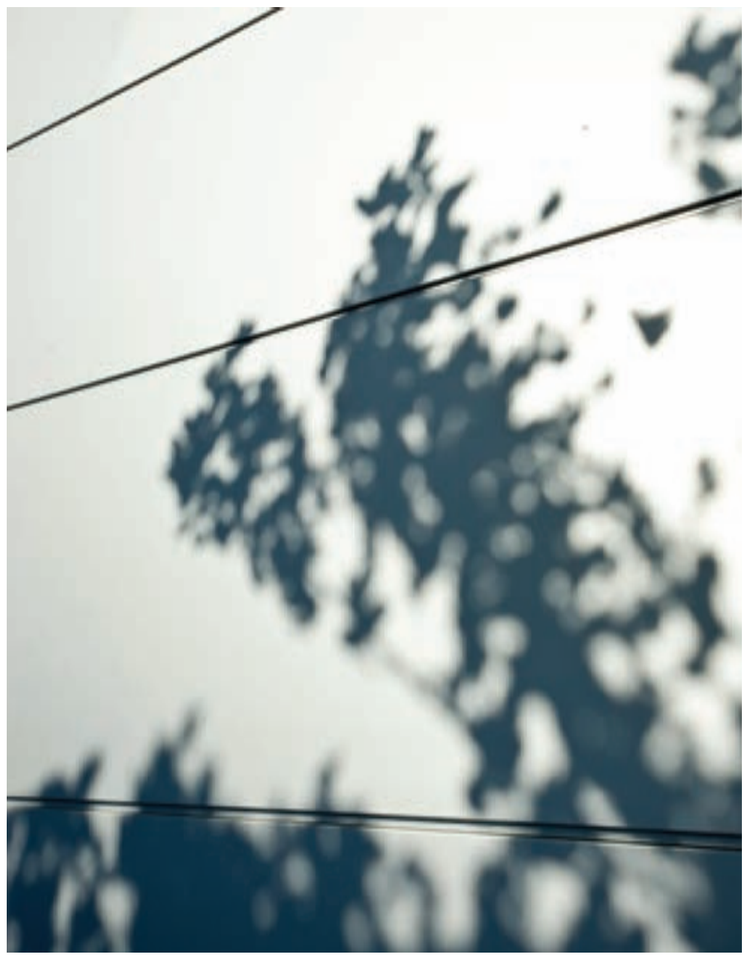


Site Plan

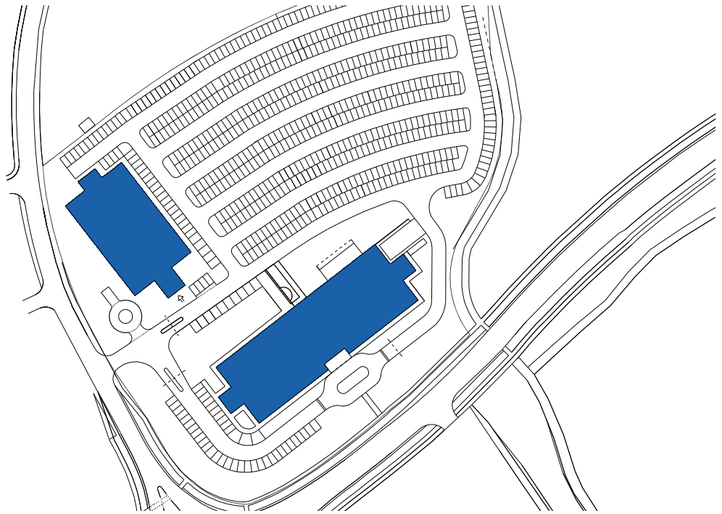

August 2001

Cobalt 15B and 15C at a glance
NIA 93,781 square feet
GIA 106,267 square feet
Net : Gross 88%
Parking spaces 443
Parking ratio 1 space to 23 square metres GIA

Contract details
Commenced March 2001
Completed November 2001
Contract programme 36 weeks



2001
Cobalt 12A
The second Procter & Gamble building



Site Plan

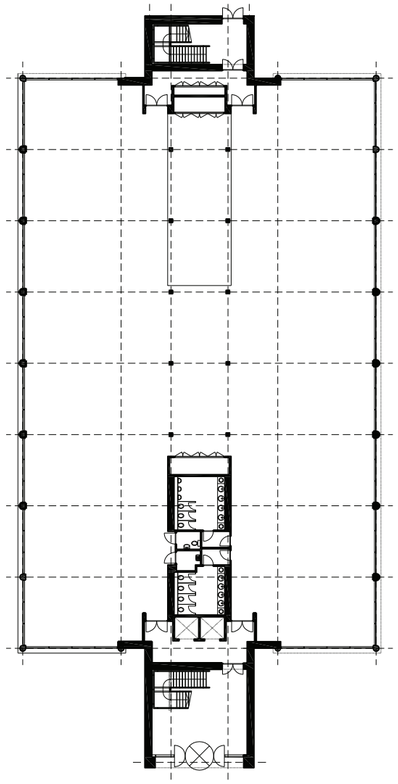
At the start of 2001 work had begun on the second Procter & Gamble building, which would now be separate from the first and rather shorter.

Situated parallel to the road, and still perpendicular to the original building, the new structure was to be approached and entered at one end.

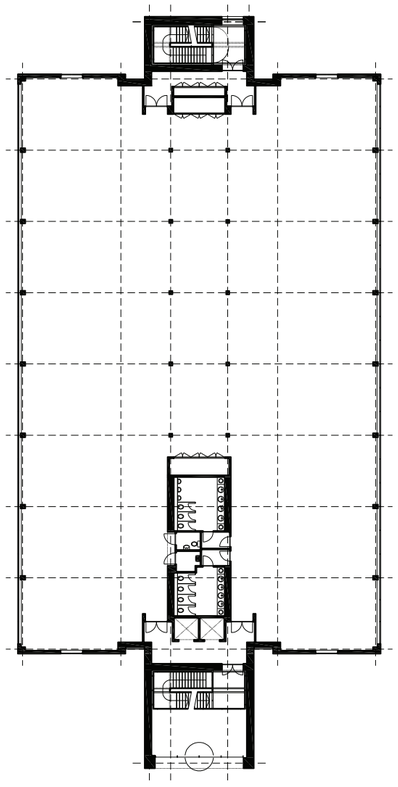
In order to provide the entrance lobby, the enclosure to the stair was lengthened to create a foyer. Otherwise the layout and design of the building were entirely in keeping with the first phase.

The second Procter & Gamble building, Cobalt 12A, at a glance
NIA 55,697 square feet
GIA 64,846 square feet
Net : Gross 86%
Parking spaces 255
Parking ratio 1 space to 23 square metres GIA

Contract details
Commenced April 2001
Completed January 2002
Contract programme 43 weeks



Ground Floor



First Floor

2001
Snapshots
Other developments in 2001

Cobalt 17

Infrastructure
Remaining infrastructure works continued through the year. The final sections of the distribution roads were completed and associated services were run to each plot. The mains distribution cable was moved underground, the high pressure gas main was diverted and many other smaller operations were completed.

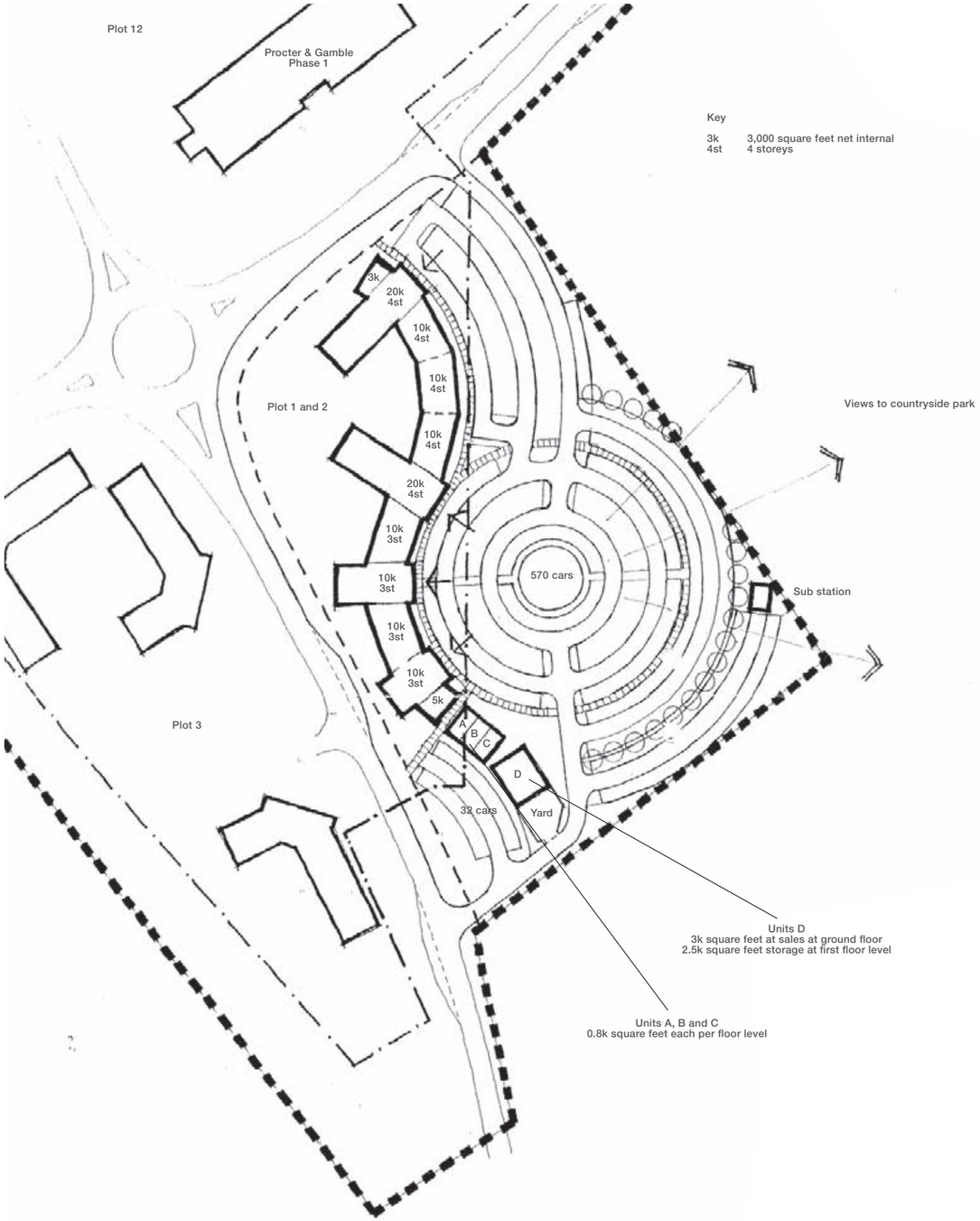
Traffic
A decision was made on access to the western sector of the park. The solution was for a continuous loop with a kerb guided section which only buses could pass. This concluded the masterplan layout.

Environment
The new bridleway was finished in June and formally opened in July. Meanwhile landscaping continued with a target completion date of spring 2002.

Cobalt 1 and 2
In response to a brief to produce a linear building that could be divided into smaller office units, Ryder produced Highbridge Business Park's 'curvy snake with fingers' scheme for Cobalt 1 and 2.

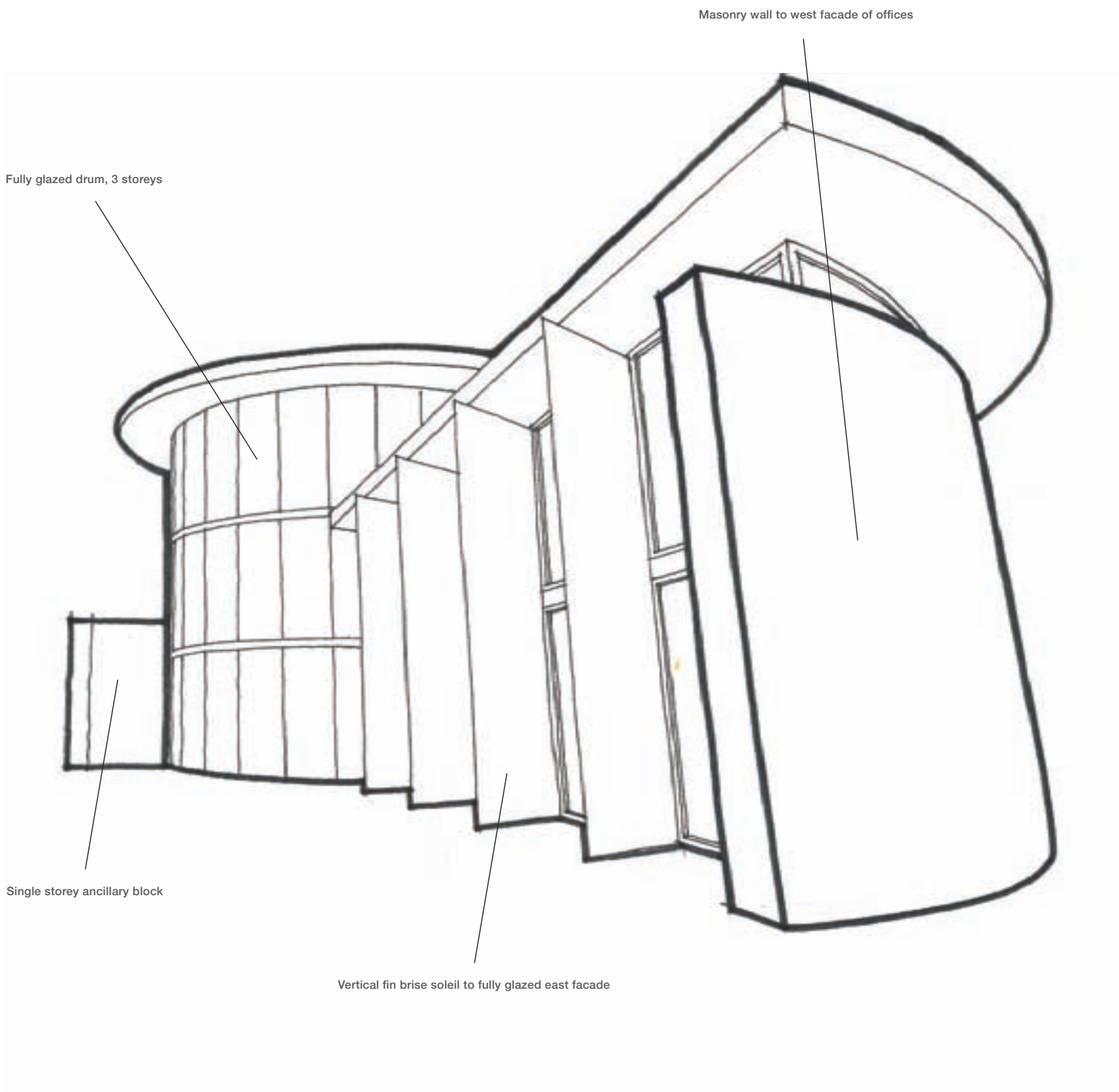
Cobalt 16
The first designs for Cobalt 16 took shape. The concept featured a pair of buildings that could be let separately or together.

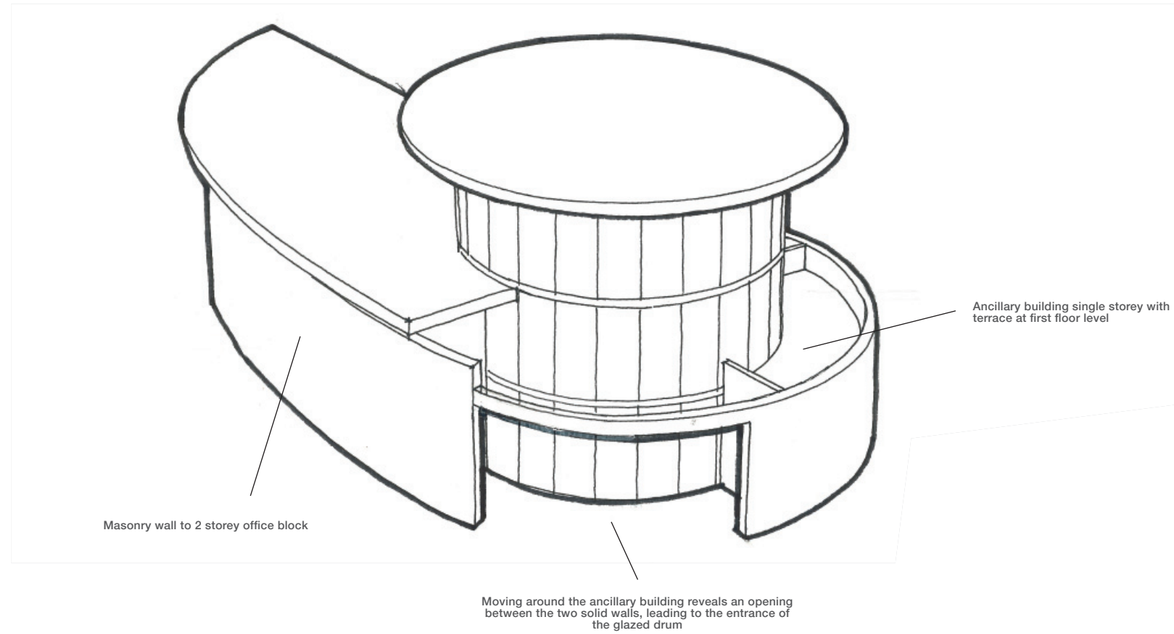
Cobalt 17
Highbridge Business Park began to consider locating retail space at Cobalt 17, which was situated by the entrance roundabout with good exposure to traffic. Ryder produced layouts for a convenience store.

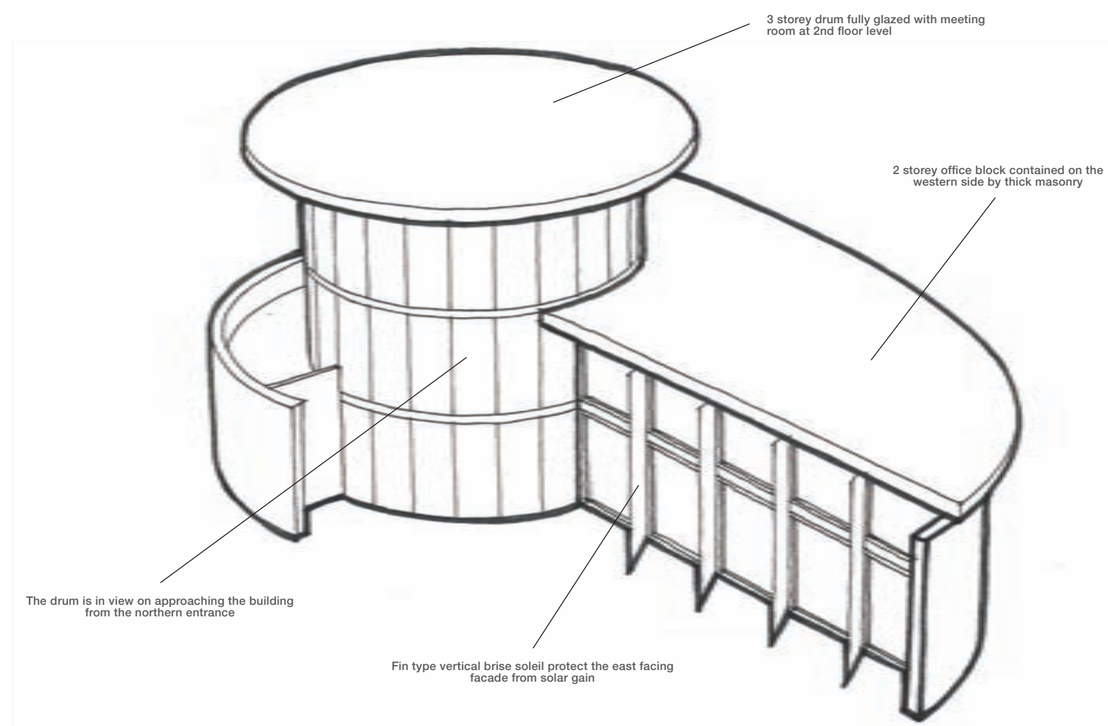


Cobalt 10A

Highbridge Business Park wanted an avant garde solution for the Cobalt management suite and security building at Cobalt 10A.







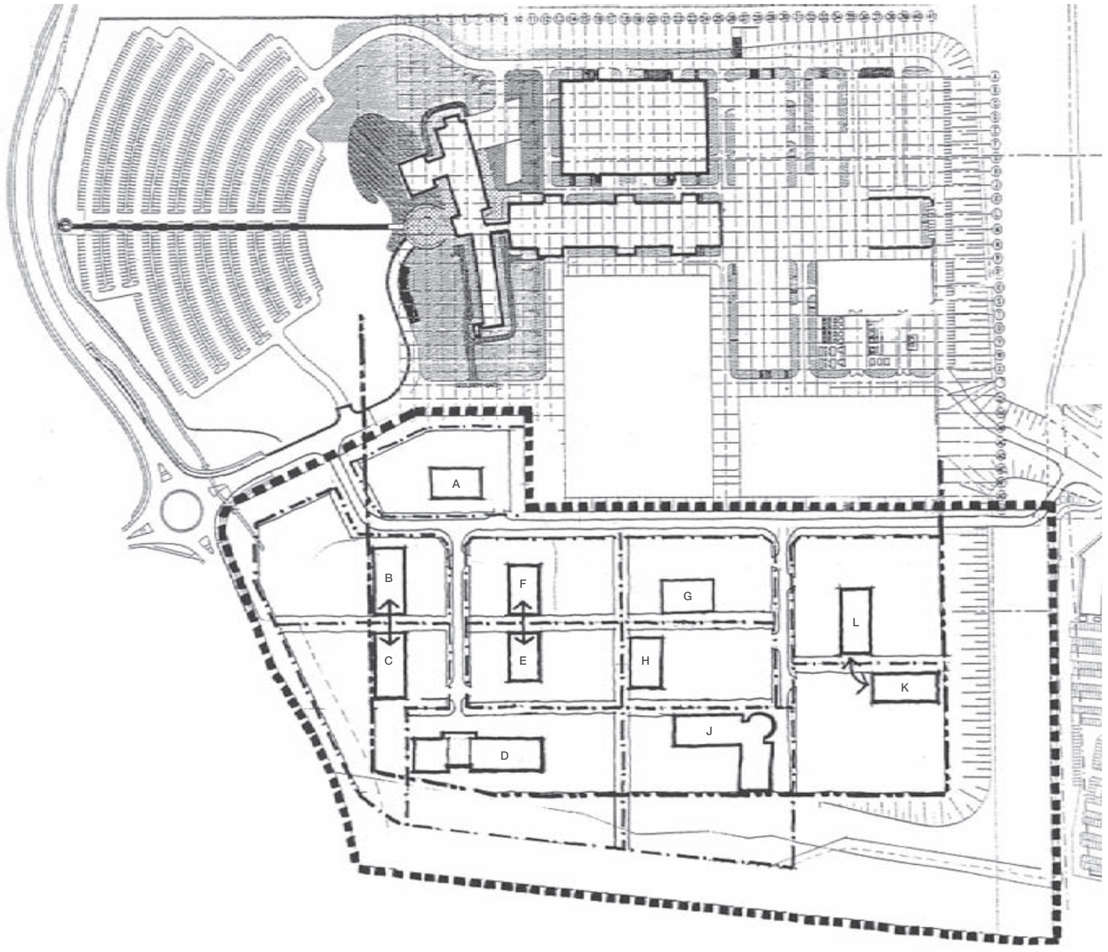
2002
Cobalt South
Getting started

The first brief for the Cobalt South masterplan was issued during 2002. The site comprised 40 acres, 22 of which were in an Enterprise Zone which specified an increased maximum building height of 25 metres.

Ryder conducted basic capacity studies and produced several variations which explored where the roads and infrastructure should be located to create the basic framework. Later in the year a new approach began to emerge.

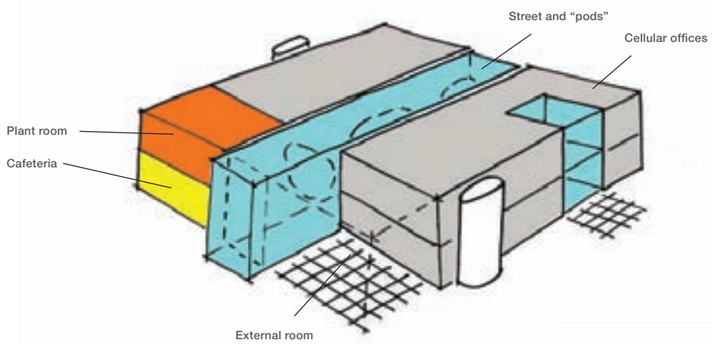
Unlike Cobalt North, Cobalt South did not have a landscape feature to provide a focus. Ryder's approach to the Cobalt South masterplan was influenced by the desire to create a unique sense of place whilst addressing a more sustainable agenda. Building orientation was a critical factor and it determined that for optimal performance all buildings should have their longest façades facing north or south.

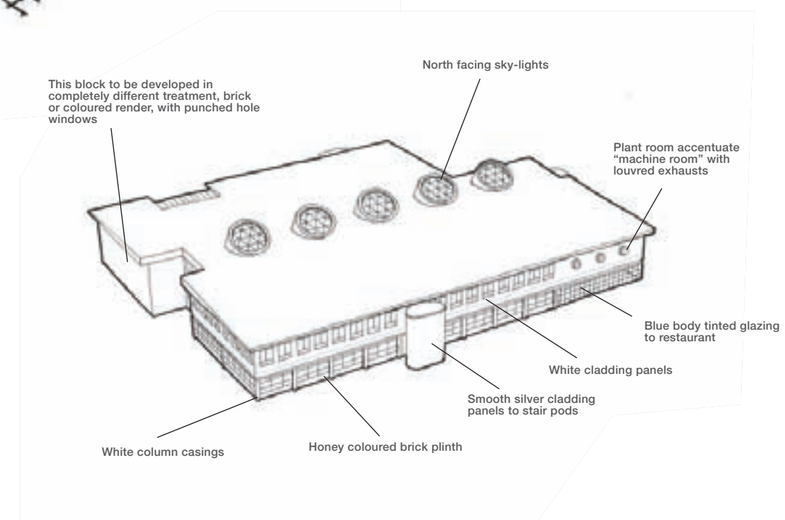
Two road layouts were developed. In the first, access roads circulated around the site with a traffic free space in the centre which allowed most buildings to have a direct engagement with the landscape. In the second, the road ran through the middle of the park and a large square with pedestrian priority was added as the heart of the development.

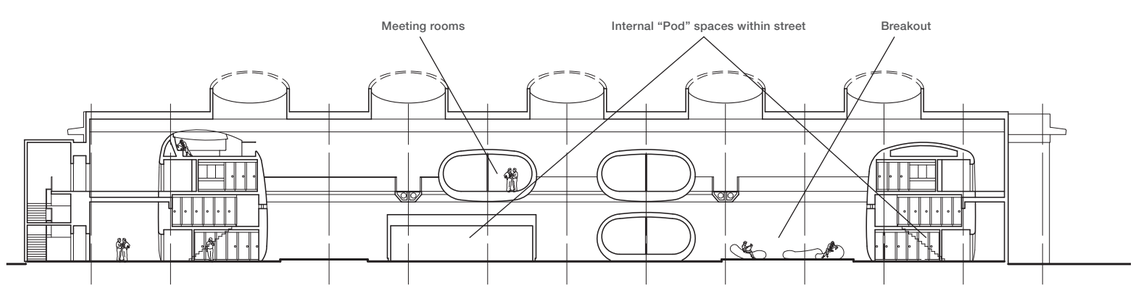


2002
Snapshots
Other developments in 2002

Project 'El Gordo'
At the beginning of the year Ryder was asked to develop a customer contact centre scheme for an anonymous client. El Gordo leveraged Ryder's expertise in contact centres and enabled it to develop a very creative solution.







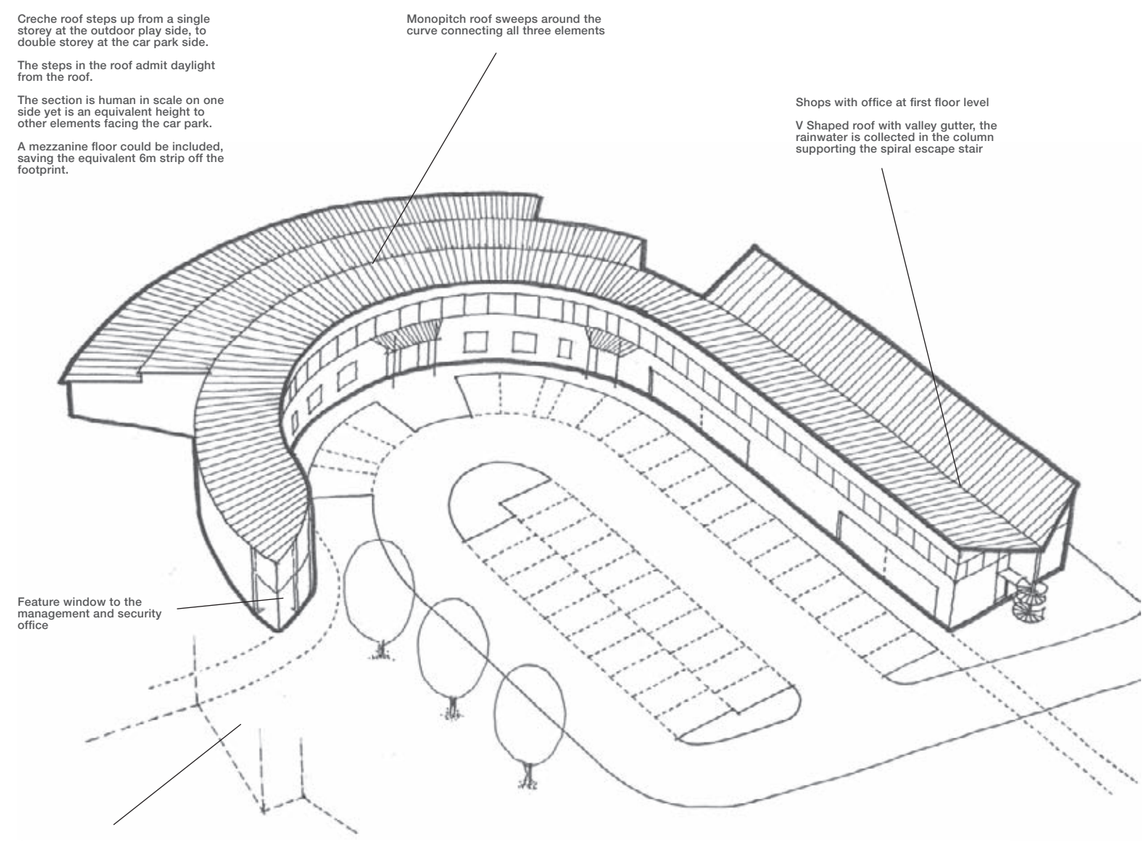
Cobalt 1 and 2
Discussions over the layout for Cobalt 1 and 2, under development for over a year, reached their conclusion. A scheme that would address all the issues began to emerge and development of the final scheme began in December.

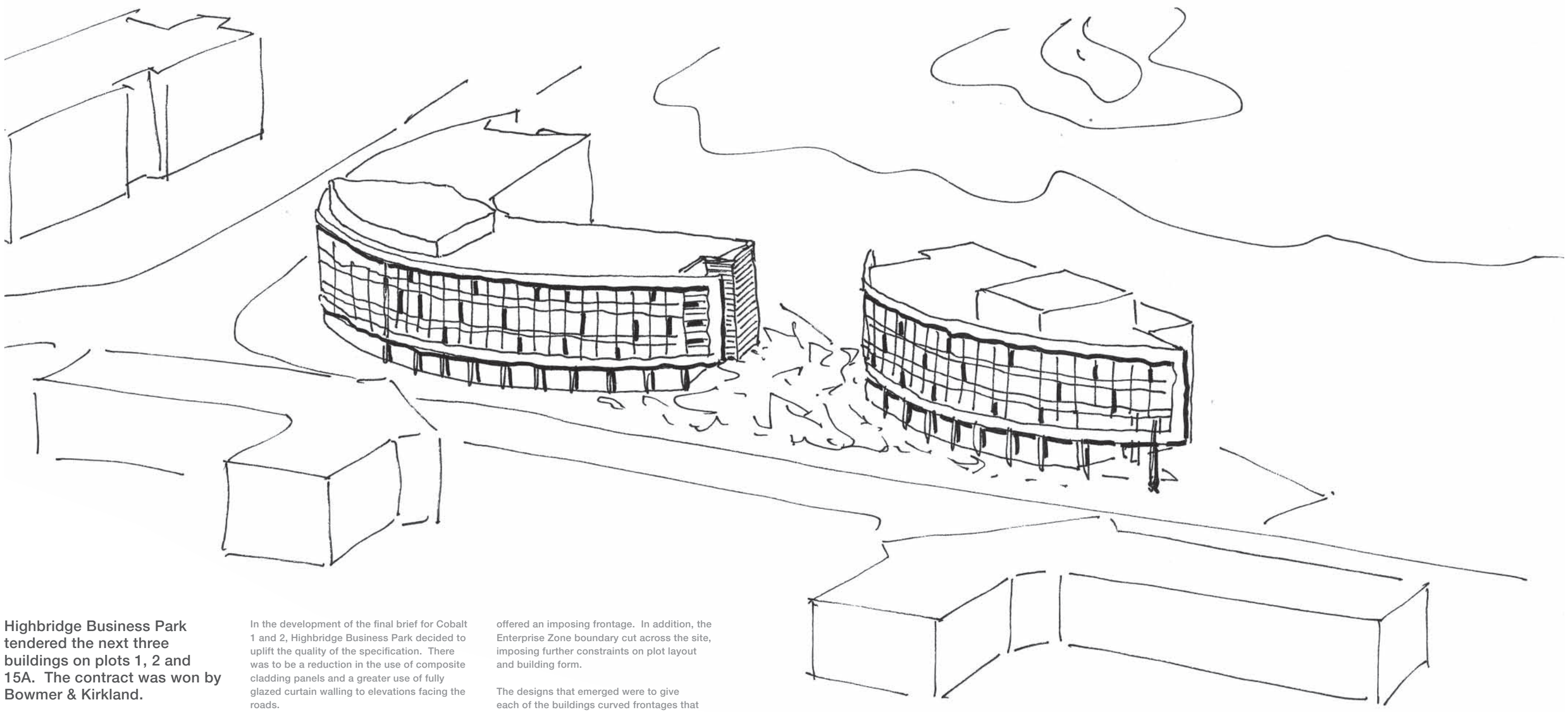
Cobalt 2
Following a number of presentations to EDS, the client chose Cobalt 2, using the temporary accommodation pending completion.

Cobalt 15A
Cobalt 15A was identified as potential expansion space for Cobalt 15B and 15C and the proposed layout, with the core separated from the offices, was warmly supported by Highbridge Business Park.

Cobalt 15B and 15C
Trillium decided to take Cobalt 15B and 15C as the base for its work with the Department for Work and Pensions.

Cobalt 16
Following an enquiry from EDS, Ryder started to develop the first layouts.





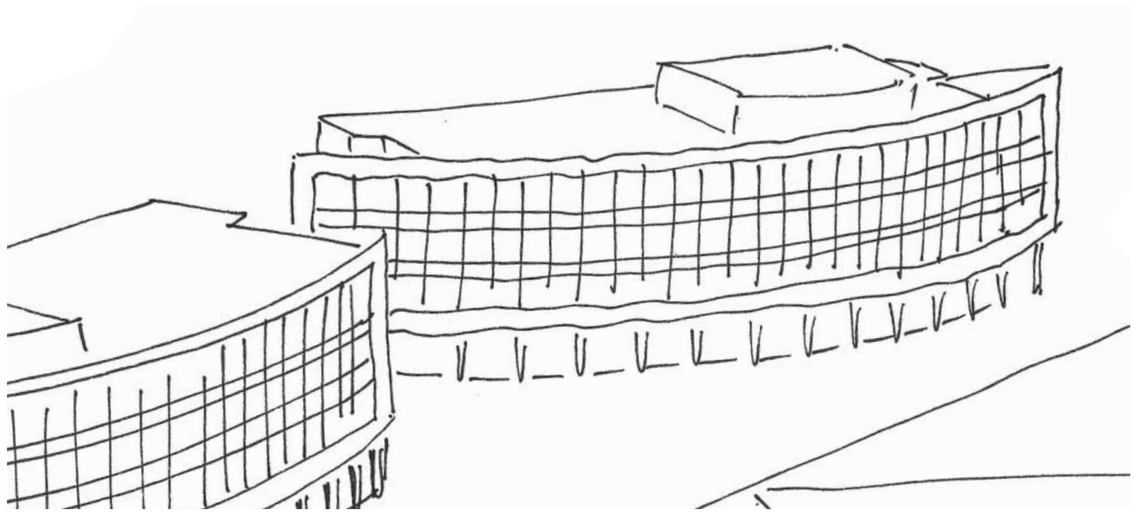
Highbridge Business Park tendered the next three buildings on plots 1, 2 and 15A. The contract was won by Bowmer & Kirkland.

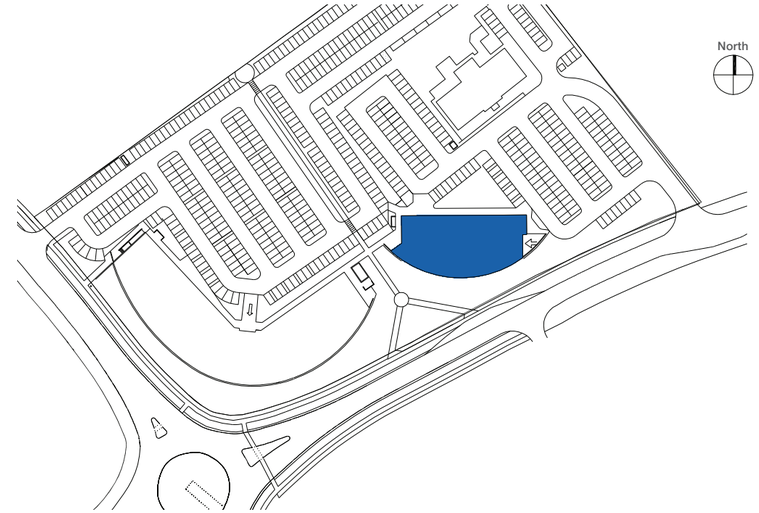
In the development of the final brief for Cobalt 1 and 2, Highbridge Business Park decided to uplift the quality of the specification. There was to be a reduction in the use of composite cladding panels and a greater use of fully glazed curtain walling to elevations facing the roads.

The layouts for Cobalt 1 and 2 took some time to emerge. The buildings needed to work with the sweep of the road and provide a design highlight at the roundabout. They also needed to respect and respond to existing buildings, including Cobalt 3, which was close to the road and the roundabout, and Cobalt 12, which stood back from the road but offered an imposing frontage. In addition, the Enterprise Zone boundary cut across the site, imposing further constraints on plot layout and building form.

The designs that emerged were to give each of the buildings curved frontages that provided plot 2 with the necessary impact at the roundabout. The curved blocks created interesting spatial relationships between existing and new buildings and provided landscaped entry spaces to Cobalt 1 and 2.

2003
Cobalt 1





Site Plan

Cobalt 1 stands alongside the eastern entrance to the park. It addresses the road and the approach from the east with its distinctive 'prow', which is created by a cutaway at ground level.

The resulting overhang protects the entrance and leads to a double height space which gives access to vertical circulation.

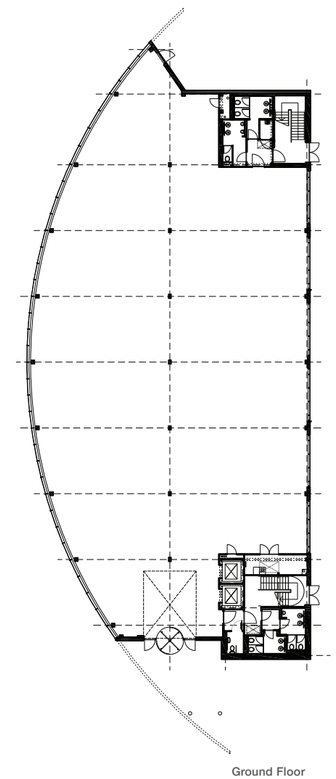
The building is a segment of a circle, with a curved frontage and a straight rear which follows the Enterprise Zone boundary. The floor width is at least 22.5 metres, increasing with the curvature.

This development marks a step change in the Cobalt design approach. Cobalt 1, like Cobalt 2, moves away from the overhanging roof feature adopted on earlier buildings. Highbridge Business Park has always tried to improve the quality and specification with very phase of the development, and these buildings are faced with curtain wall on elevations fronting the road. The rear elevations are simpler, with punched hole windows in the brickwork. The windows on both sides of the building run from floor to ceiling.

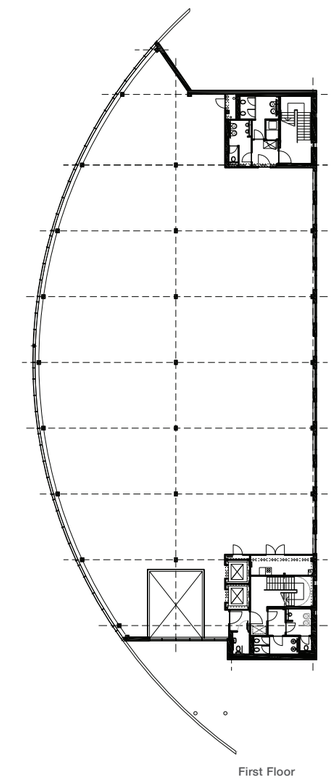
The building comprises four storeys of offices, which can be let by floor. Core facilities are split, with a minimal provision beside the entrance and the remainder at the far end. The use of different fenestration at front and back enables the interior layouts to be varied. Occupants can choose, for example, between open plan and cellular spaces, alongside continuous or 'punched' effect windows.

Along the glazed frontages, the upper floors are framed and separated from the ground level by a channel section frame. This encloses louvre features to each end which visually terminate the glazing. A subtle variation in the glazing bar layout provides a further contrast between ground and upper floors.

To satisfy the new Part L Building Regulations, the glazing specification has been increased to improve insulation performance. Plant is housed at roof level and enclosed with flat, metal faced composite cladding panels. A four pipe fan/coil system provides heating and cooling and a minimum 150mm clear void is provided to raised floors throughout the office areas.



Ground Floor



First Floor

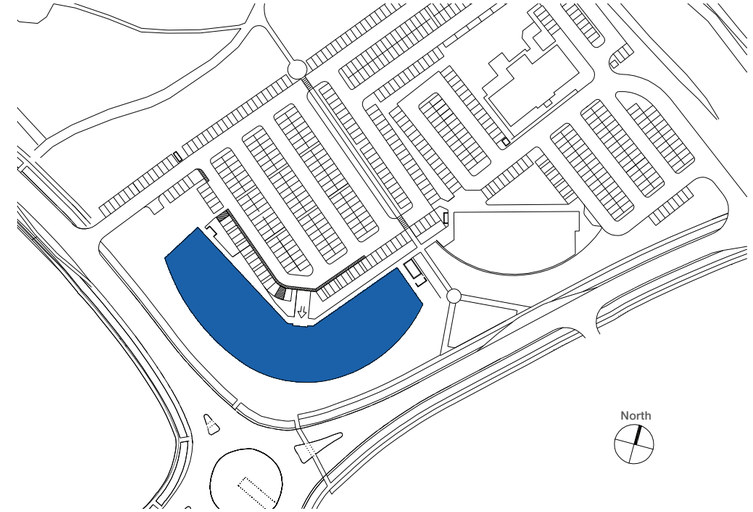

1
G

Cobalt 1 at a glance
NIA 44,000 square feet
GIA 50,469 square feet
Net : Gross 87%
Parking spaces 174
Parking ratio 1 space to 27 square metres GIA

Contract details
Commenced March 2003
Completed May 2004
Contract programme 50 weeks

2003
Cobalt 2


Early Design Visualisation



Site Plan

The brief for Cobalt 2 specified a four storey office building that could form a single let or be divided to form two.

The location is a prominent one alongside a roundabout.

Ryder responded with an L-shaped design. A curved, fully glazed façade would form the frontage, with straight backed, brick clad elevations to the rear featuring punched hole windows similar to those used in Cobalt 1.

Each wing has its own car park, parts of which cross the Enterprise Zone boundary. Parking within the Enterprise Zone is provided at a ratio of one space per 23 square metres. Outside the Zone it is provided at one space per 27 square metres.

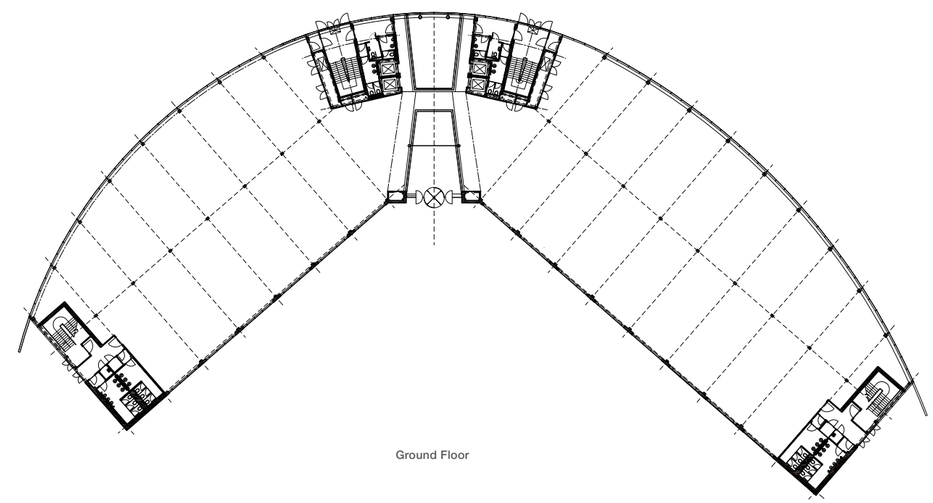
People enter the building from the car parks via a double height reception space. This leads to a full height atrium space which provides a visual highlight when seen from the roundabout. It also acts as a visual divide between the two wings. The lifts are located on each side of the atrium. At the upper levels they are accessed from balconies which overlook the atrium.

The core facilities and main accommodation stairs are in a common user space reached via the atrium and balconies. To enable the building to be divided into independent demises, these features are split either side of the atrium so that each wing can be fully self contained.

The full height atrium, introduced to Cobalt in this building, became very popular and has often been repeated in subsequent buildings.

Cobalt 2 at a glance
NIA 102,505 square feet
GIA 118,953 square feet
Net : Gross 86%
Parking spaces 410
Parking ratio 1 space to 27 square metres GIA

Contract details
Commenced May 2003
Completed May 2004
Contract programme 50 weeks


Ground Floor

2003
Cobalt 15A


Early Design Study

For this building Highbridge Business Park specified a simpler external style, with dual entrances and core facilities at one end. It was to be three storeys high, with plant accommodated at roof level.

Its location was influenced by the possibility of letting the offices to the occupier of Cobalt 15B and 15C. The Enterprise Zone boundary, which cut across a corner of the site, also influenced the layout.

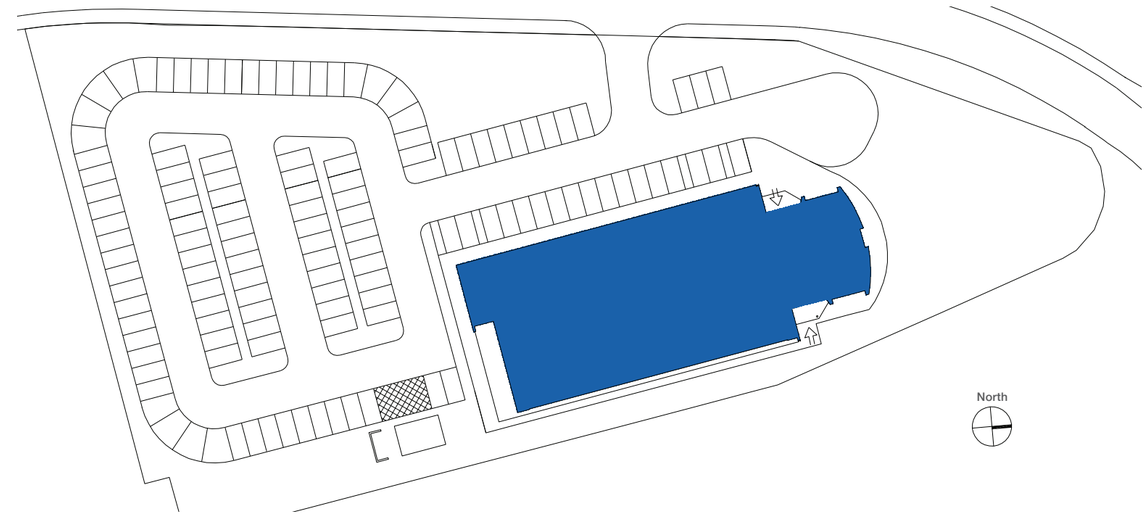
In order to incorporate dual entrances, the core is separated from the offices. At ground level the resultant space forms an entrance foyer and, at the upper floors, it bridges a triple height atrium space and connects the offices to the core.

The two main elements of the building are treated in different ways. The offices are enclosed in cavity brickwork, while the core is clad in metal faced composite cladding panels which stand vertically. This echoes the use of cladding panels on the staircases of Cobalt 15B and 15C.

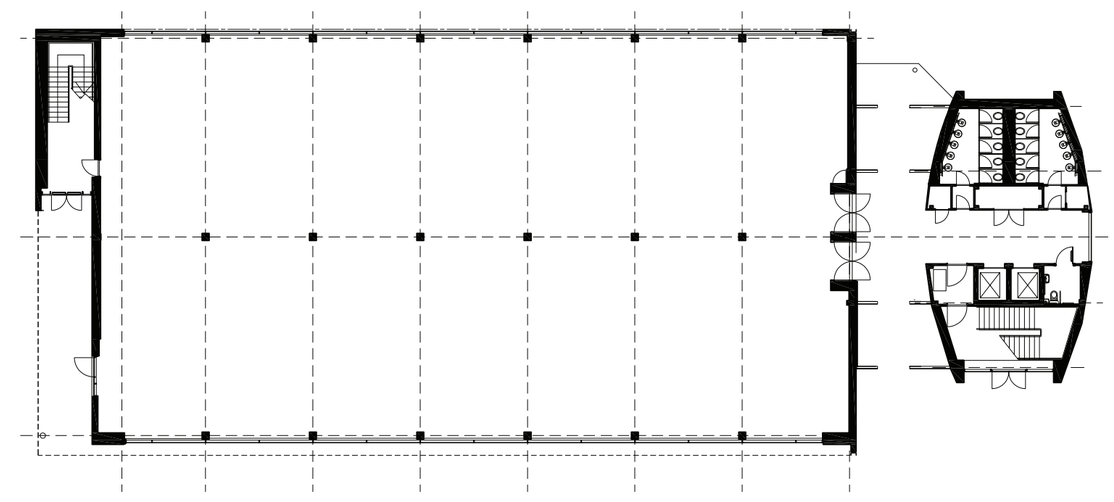
The layout of Cobalt 15 is based on simple, unencumbered floorplates of 10,000 square feet, free from all intrusions. Car parking falls entirely within the Enterprise Zone and is provided at a ratio of one space per 23 square metres.

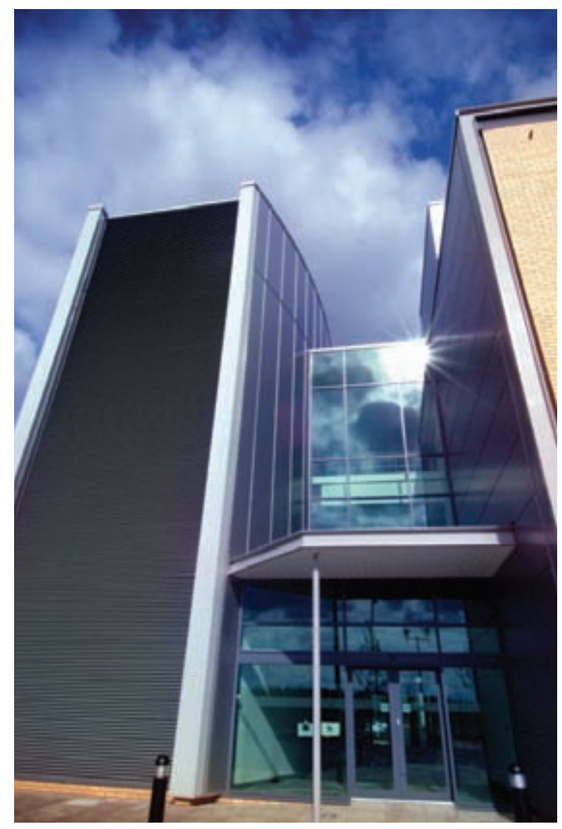
Cobalt 15A at a glance
NIA 30,189 square feet
GIA 36,006 square feet
Net : Gross 84%
Parking spaces 127
Parking ratio 1 space to 23 square metres GIA

Contract details
Commenced May 2003
Completed May 2004
Contract programme 50 weeks



Site Plan


Ground Floor



2003
Cobalt 16
A new benchmark


Visualisation

The brief for Cobalt 16 was based on the enhanced specification used in Cobalt 1 and 2. The building forms two wings which could be let to two separate occupiers.

The entrances and core are located towards the centre of the building. The primary entrance, which lies on the major frontage to Silverlink North, features a full height atrium which separates the two wings. To the rear, the entrance from the car park is via a double height space which contains the lift foyer and also gives access to core facilities. This space leads to the atrium, a focal point which provides the building's internal character. Externally the atrium resembles a glass drum and provides the pivotal point in the overall composition.

Each of the wings has its own parking with independent access from Silverlink North. Parking areas are landscaped with rows of trees between the parking bays. To the front, further extensive landscaping gives the development an imposing setting facing Silverlink North.

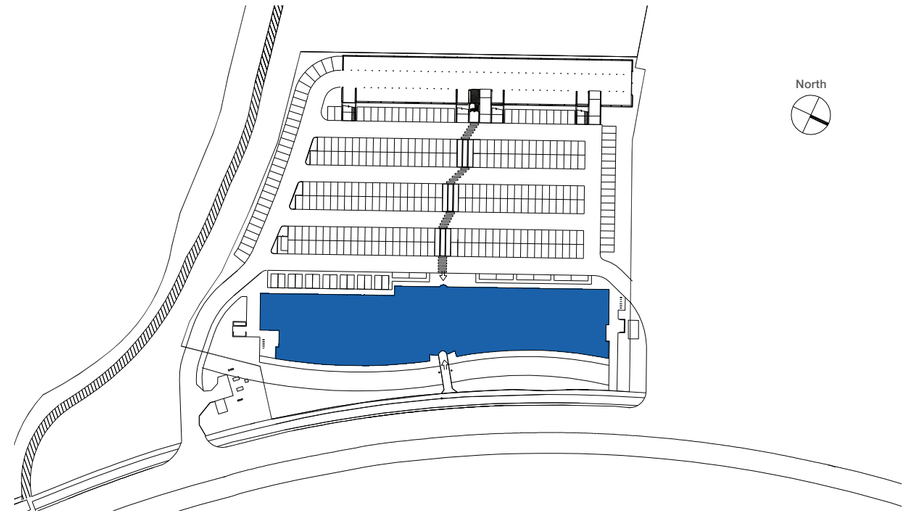
A first for Cobalt 16 is the use of deck parking. To minimise its visual impact, the lower deck is sunk into a semi-basement 1.5 metres below ground level, enabling the rise of the upper deck to be reduced to just 1.5 metres above ground level. The deck is screened by planting, while the access ramps were doubled to enable this facility to be split between two tenancies if required.

Deck parking reduces the surface area required for parking and enables additional landscaping to be provided. It also gave the Ryder team more flexibility in layout so that the development density of the plot could be increased.

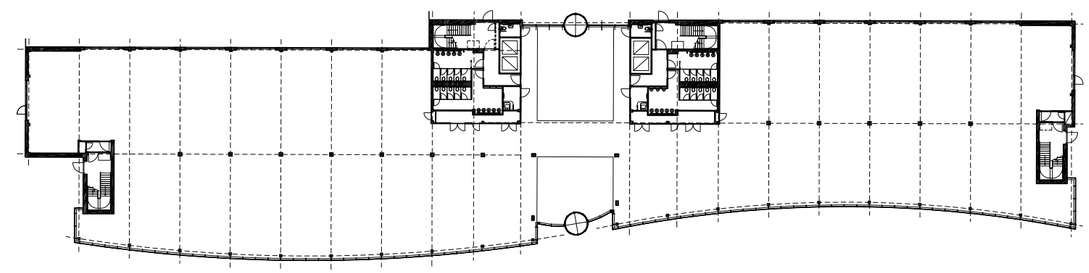
The appearance of the building is based on the principles adopted in Cobalt 1 and 2. It features fully glazed façades to the roadside and elegantly proportioned brickwork at the rear. The frontage is curved, as on Cobalt 1 and 2, but the two wings have their own characters and identities. Curvature on the larger wing is convex, with a concave shape for the smaller.

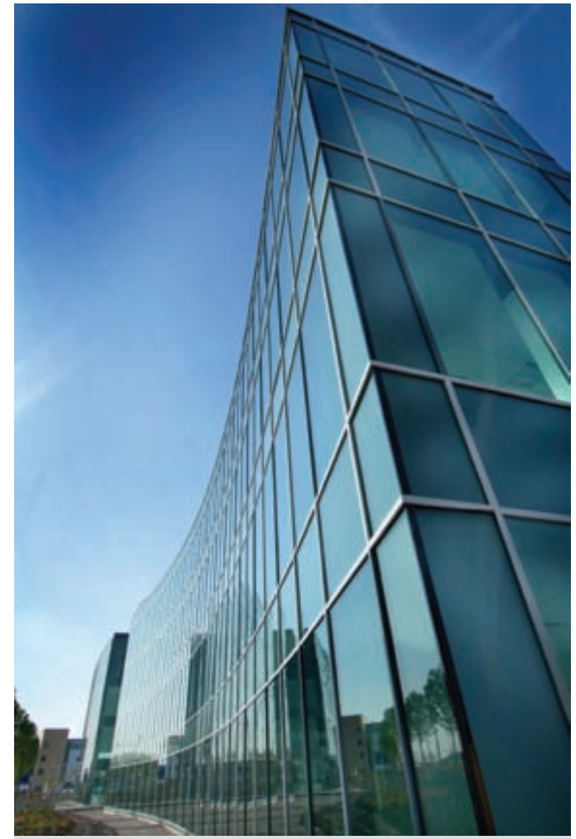
Both wings pivot about the rounded atrium to create a gently flowing glass wave. The curvature provides each wing with its own character, as the larger wing becomes wider towards its mid point while the smaller becomes narrower. All office floors have a minimum width of 21.5 metres and a ceiling height of 3 metres.

The layout principles established at Cobalt 16 – two wings separated by a split core either side of a central atrium, with escape stairs at the extremities – became a pattern that would be repeated on a number of subsequent buildings. Deck parking would also become more widely used.

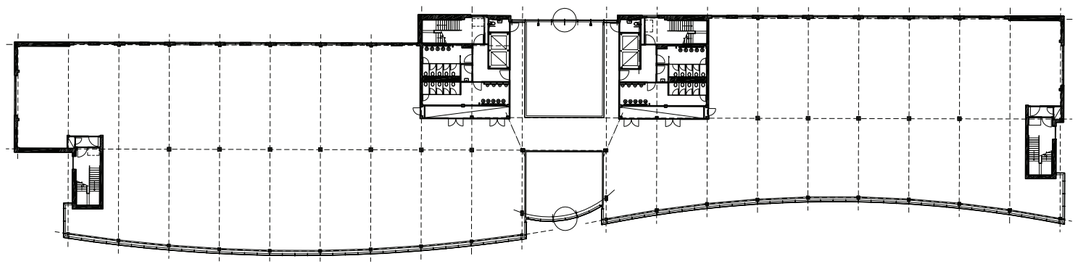


Site Plan


Ground Floor

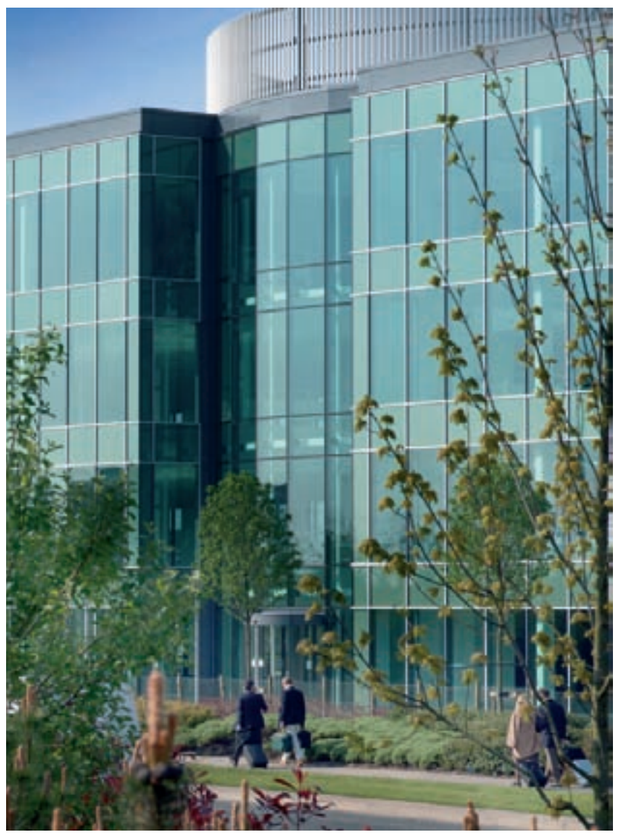


First Floor



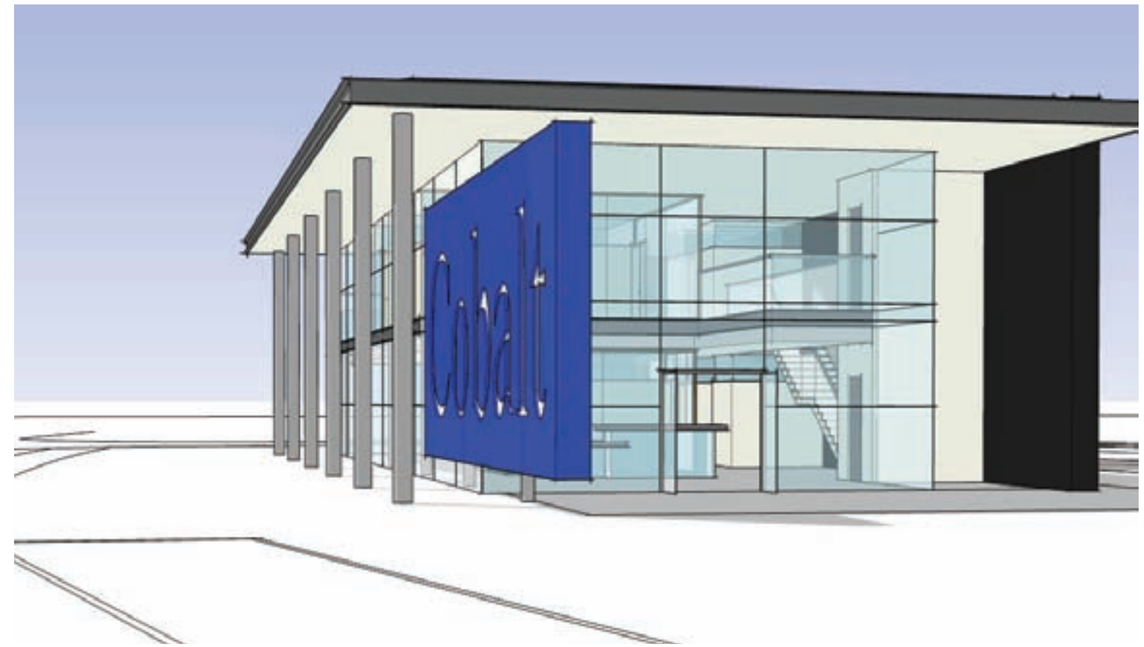
Cobalt 16 at a glance
NIA 100,770 square feet
GIA 119,432 square feet
Net : Gross 84%
Parking spaces 472
Parking ratio 1 space to 23 square metres GIA

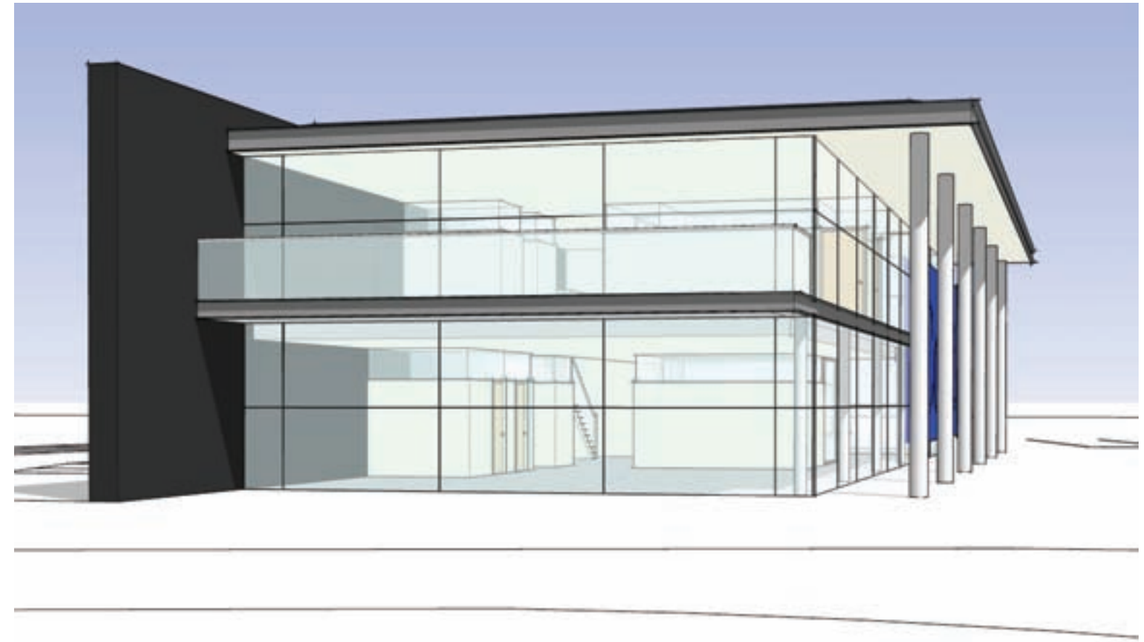
Contract details
Commenced April 2004
Completed March 2005
Contract programme 46 weeks



2004
Snapshots
Moving ahead, autumn 2004

3D modelling
In its continuing quest to find new ways to present its proposals to Highbridge Business Park and end users, Ryder adopted cutting edge technologies. One of these was SketchUp modelling software, first used to illustrate the team's proposals for a proposed marketing and security building at Cobalt 10.



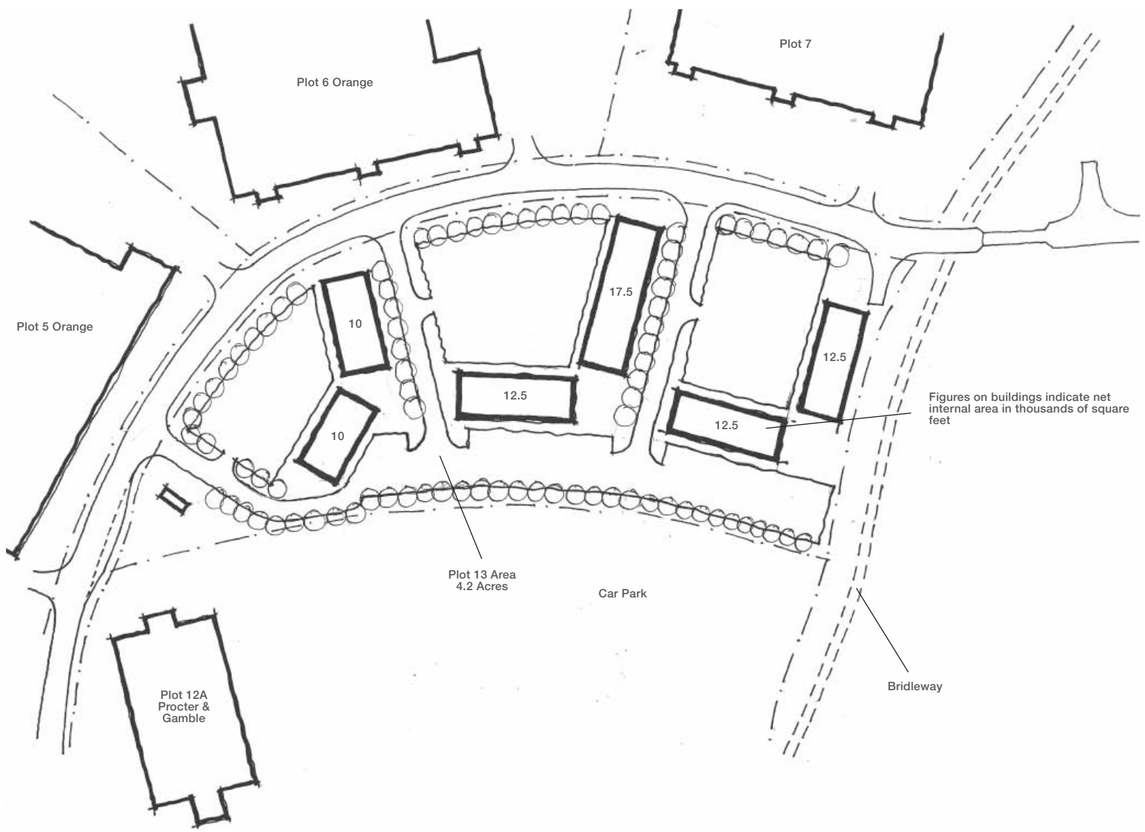


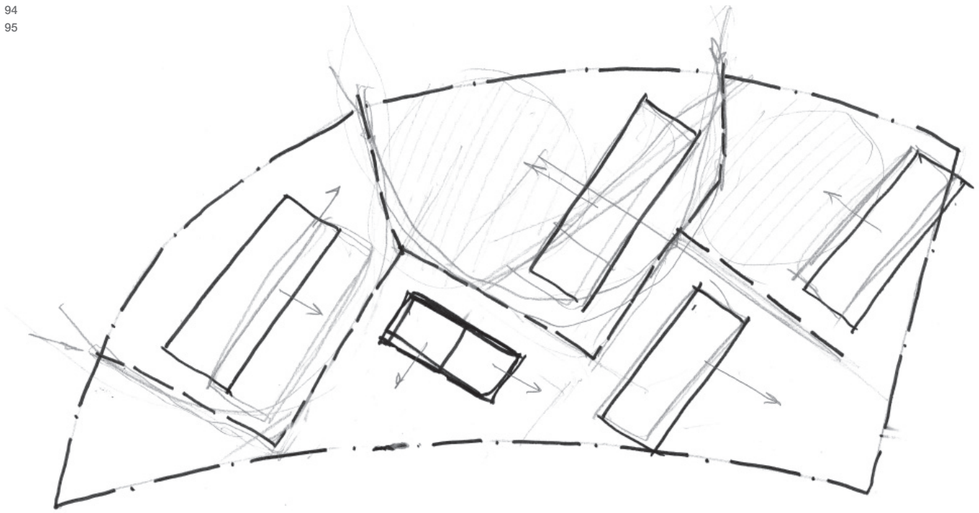
2005
Snapshots
New year, fast start

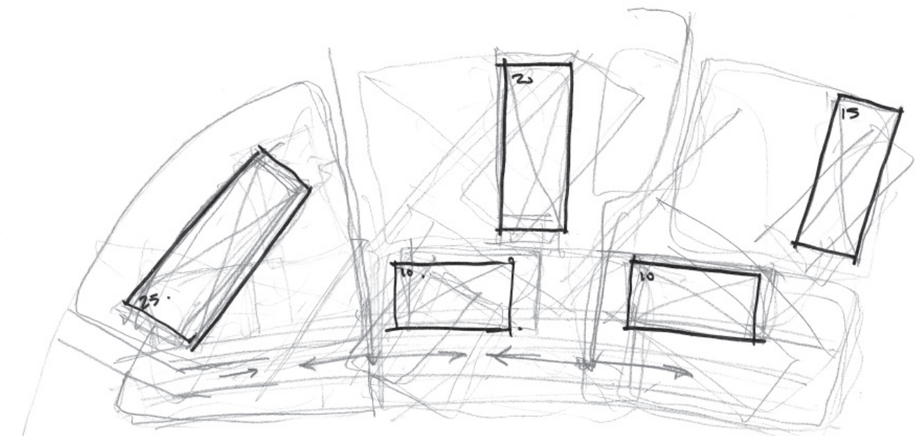
Cobalt 15A
GE Capital, which had decided to trial a new product, wanted to locate the product team at Cobalt 15A. If successful, further operations would follow. To cater for this eventuality, Ryder began to develop options for a large corporate building at Cobalt 9A.

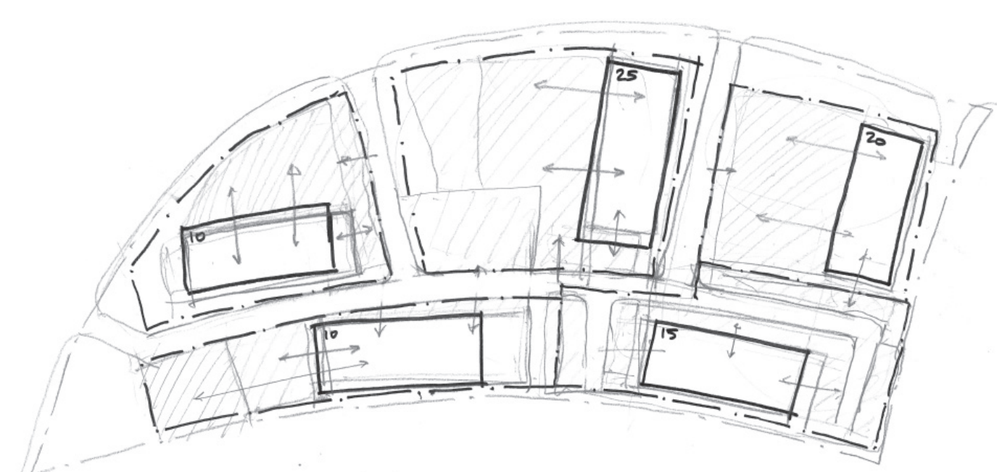
Cobalt 13
This plot presented the twin challenges of a difficult shape and the potentially dominating presence of Cobalt 6. Ryder produced several feasibility studies including options for a number of smaller buildings.

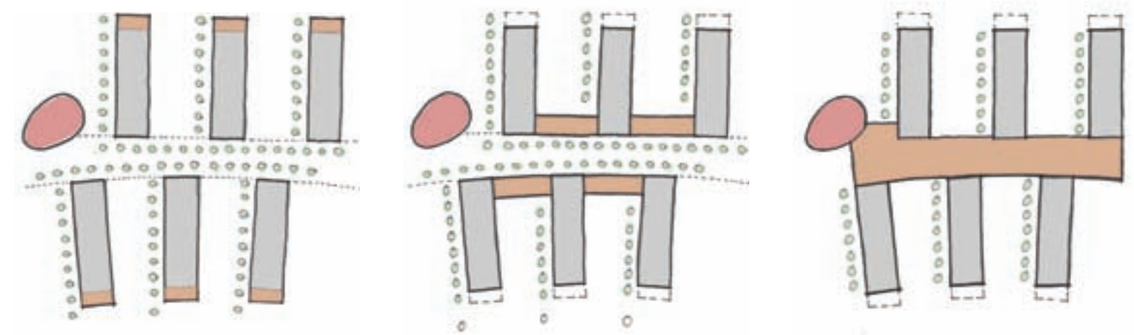
Northumbria Healthcare Trust approached Highbridge Business Park with an initial requirement for 30,000 square feet with the possible addition of a further 20,000 square feet. The building was to be based on the design used at Cobalt 16 but with two unequal wings.

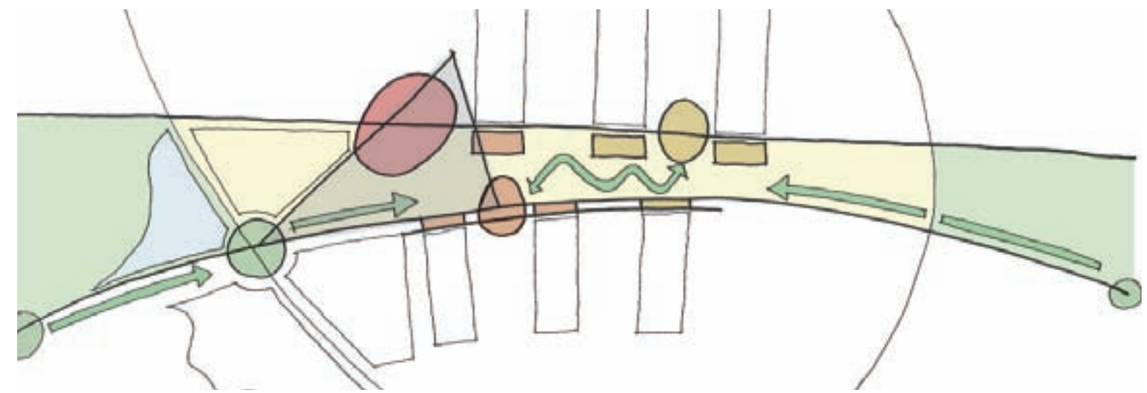


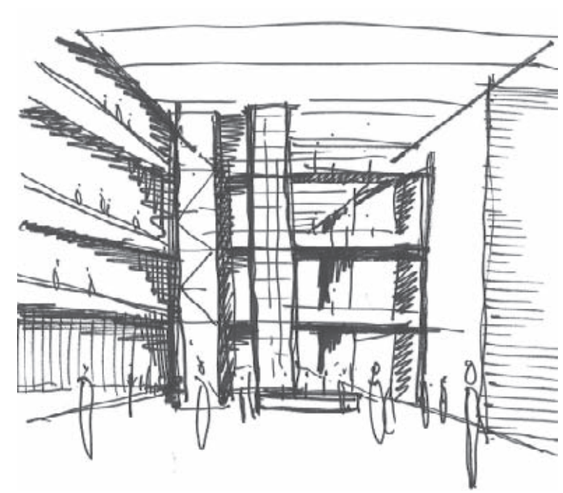


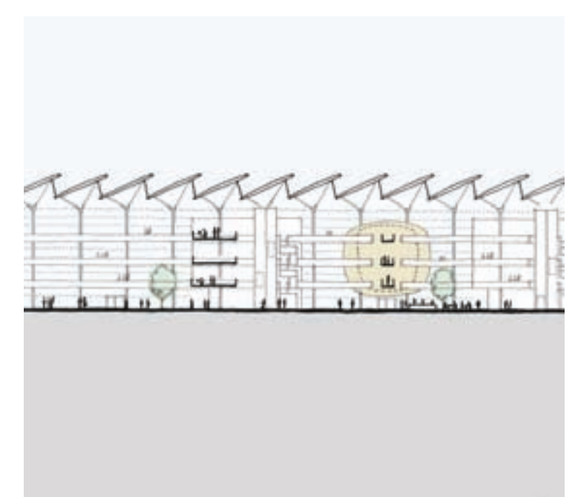












Cobalt 21
Following a request from Newcastle Building Society for a facility of 100,000 square feet, Ryder produced a scheme for this requirement at Cobalt South.

The location was a prominent one, at the proposed new southern entrance to Cobalt. It would take advantage of an extensive new landscape feature to provide an enhanced setting for the building. The design was to be based on two tapering wings, roughly at right angles, with a curved feature at the junction exploiting the landscaped setting. The tapering wings give the building a boomerang footprint.

Cobalt South masterplan
Work continued to finalise the masterplan in line with the Enterprise Zone timeframe. This would enable the Cobalt development to benefit from the associated financial and planning allowances.

2005
Cobalt 13A, B and C


Cobalt 13A Visualisation


Cobalt 13B and C Visualisation

The layout of this plot was driven by an enquiry from the Northumbria Healthcare NHS Trust for a building of 50,000 square feet over three storeys.

The brief to Ryder was to provide a layout similar to that used in Cobalt 16, with the enhanced specification.

Each building at Cobalt 13 has two wings, each with double height entrance spaces. At 13A the wings, each of which can be let separately, form a right angle, and core facilities are located at the junction. The wings have fully glazed façades to the front and brickwork elevations with continuous horizontal strip windows to the rear. The glazing, which extends from floor to ceiling, is 3 metres high on all floors.

At 13B and C a simpler, almost linear design is used, with offset cores positioned to create wings of different sizes.

The two wings form a slight angle and each one can be let separately, with a shared entrance area. The wings are facetted about the core with fully glazed curved façades to the front and brickwork elevations with punched windows to the rear.

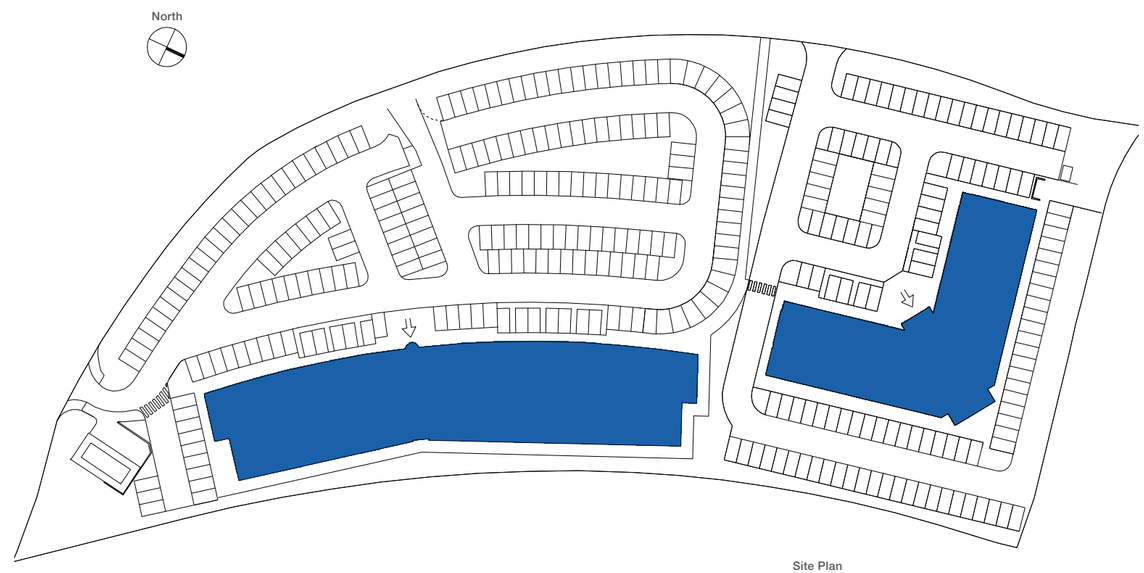
Parking is to the front and rear of 13A and to the front of 13B and C.

Cobalt 13A at a glance
NIA 31,243 square feet
GIA 36,412 square feet
Net : Gross 86%
Parking spaces 127
Parking ratio 1 space to 27 square metres GIA

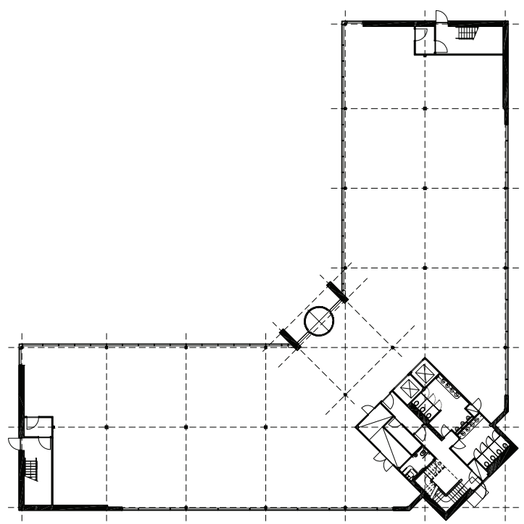
Contract details
Commenced February 2006
Completed January 2007
Contract programme 44 weeks

Cobalt 13B and C at a glance
NIA 50,214 square feet
GIA 58,723 square feet
Net : Gross 85%
Parking spaces 215
Parking ratio 1 space to 25 square metres GIA

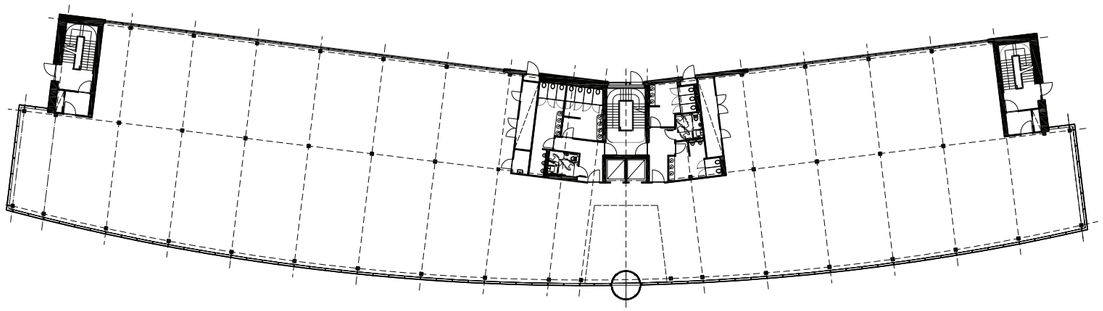
Contract details
Commenced February 2006
Completed January 2007
Contract programme 44 weeks



Site Plan

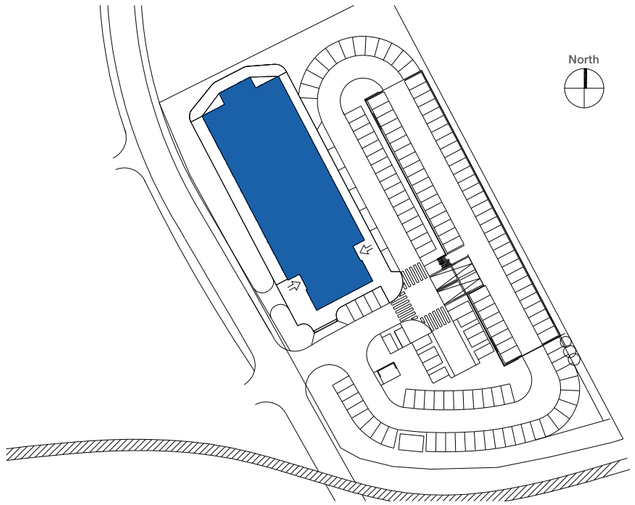


13A Ground Floor Plan

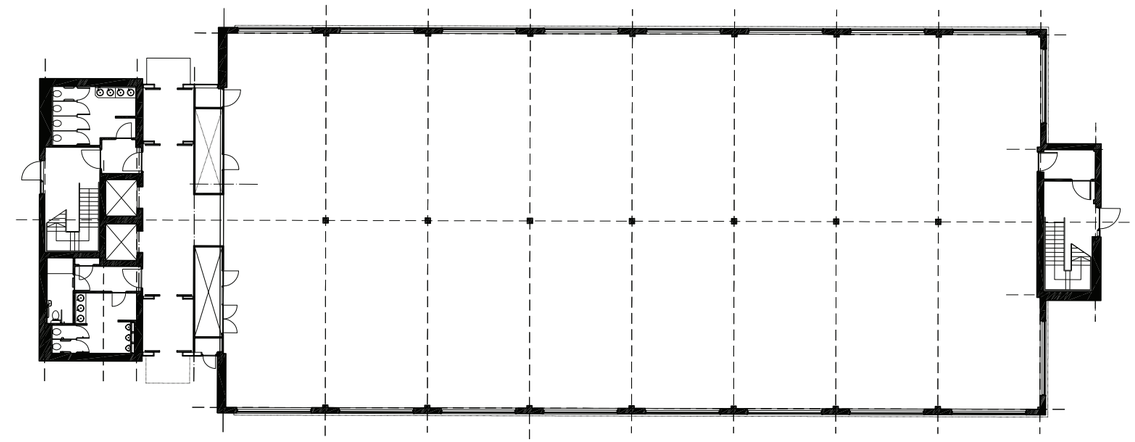


13B and C Ground Floor Plan

2005
Cobalt 14



Site Plan



Ground Floor Plan

Cobalt 14 follows the model established at Cobalt 15A with the core separated from the office floorplate. This creates entrances addressing both the access road and the car park.

The building has a single rectangular floorplate form entered from one end. It is a four storey building that faces the access road. There are fully glazed façades to the front and rear elevations of the upper storeys, and the upper floor glazing is contained in a 'box' that projects beyond the plane of the brickwork base at ground level.

To the rear, the glass area is reduced by a series of metal faced vertical panels. The brickwork base has large punched windows to the ground level elevations. Glazing extends from floor to ceiling and is 3 metres high on all floors.

The two entrance doors lead into a full height feature atrium with automatic entrance doors. Parking is to the side and rear, with an area of deck parking to the rear boundary.

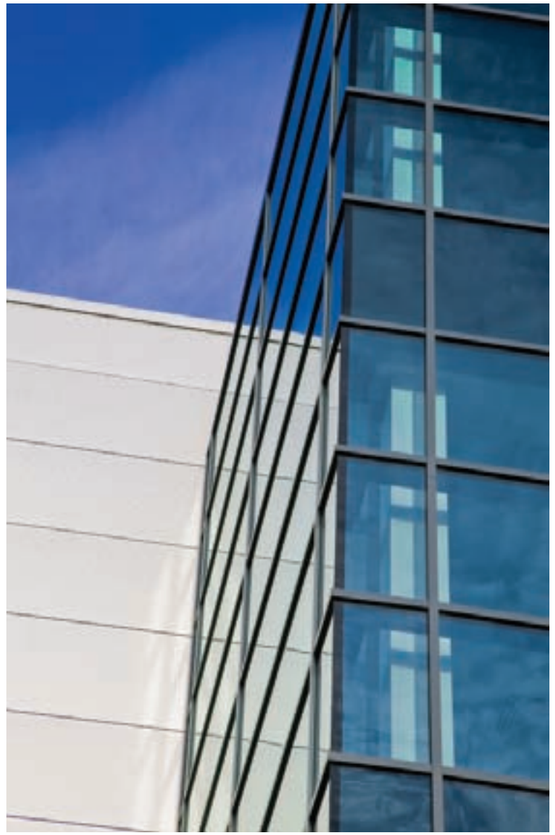
Cobalt 14 at a glance
NIA 46,000 square feet
GIA 54,143 square feet
Net : Gross 85%
Parking spaces 205 (57 on upper deck)
Parking ratio 1 space to 23 square metres GIA

Contract details
Commenced February 2006
Completed January 2007
Contract programme 44 weeks

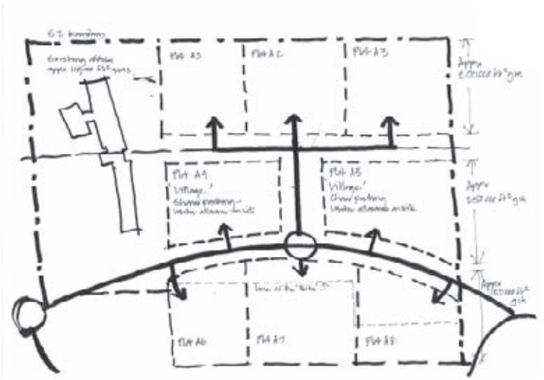
Early Design Model Visualisation

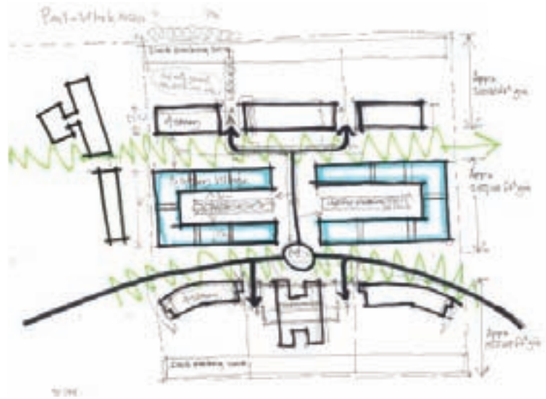

Visualisation

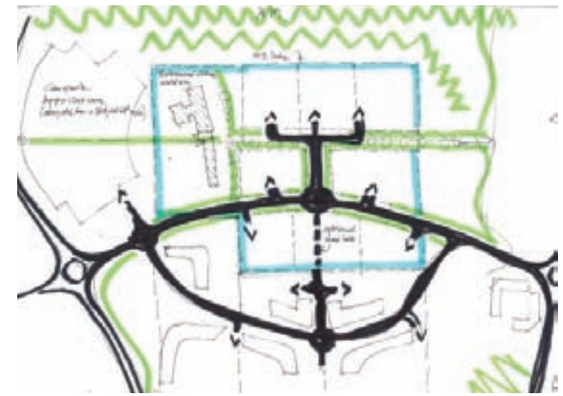

Completed Building

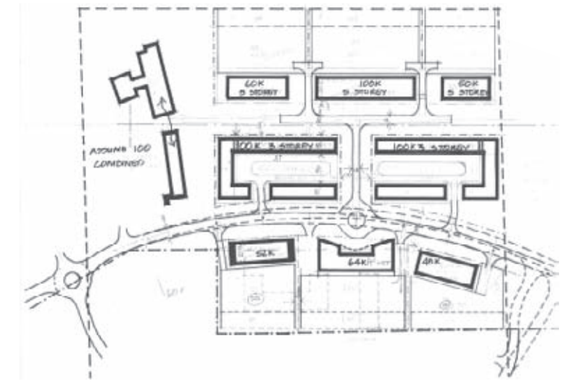


2006
Maintaining the momentum





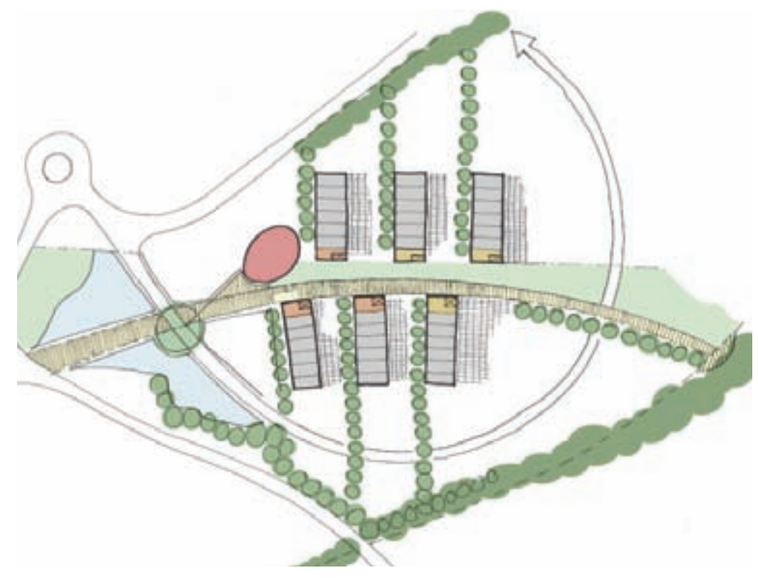




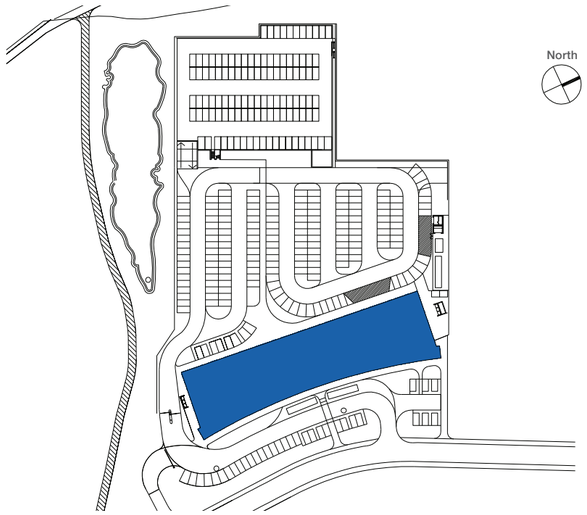
Cobalt South masterplan
The beginning of the year saw a final push to complete the masterplan in time to meet the Enterprise Zone deadline. At least six alternative layouts were finally agreed and these became the subject of 'golden contracts', whereby the developer committed to building the designated layouts to secure the benefits of Enterprise Zone classification. The submission included proposals for Cobalt 21.

Cobalt 4
A new enquiry from a food manufacturer led Ryder to develop a proposal for a headquarters building with a retail element at ground level. This proved to be the genesis of future proposals for mixed use schemes on the Cobalt site, including retail, offices and an hotel.

Cobalt North masterplan
With Enterprise Zone status due to expire during the summer, work continued to finalise the masterplan for the undeveloped plots on this section of the estate, Cobalt 4, 7, 8 and 9. Approval followed and work started in compliance with the zone regulations.



2006
Cobalt 9A
GE Finance



Site Plan

Visualisation

Following its successful occupancy of Cobalt 15A, GE Money asked Highbridge Business Park to develop a large bespoke building.

GE liked the style of Cobalt 16 and asked for a similar facility of five storeys, which would also make the company highly visible from the A19. As the proposed height exceeded the Enterprise Zone limit, planning approval would be required.

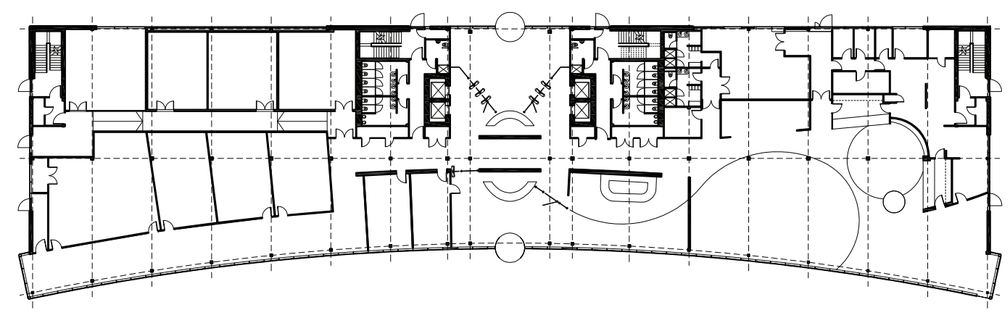
Cobalt 9A was conceived as a T-shape building which would be built in two phases. Phase 1 was to be 100,000 square feet, with phase 2 of 50,000 square feet.

The phase 1 building would have a central core area for vertical circulation and toilets, with a feature atrium space to extend through all five floors. Two entrances, at the front for visitors and to the rear for staff and deliveries, would both open onto the central atrium. The front of the building was to feature a subtly curved, fully glazed façade finished in curtain walling. The rear would have a rectilinear brick elevation with elegantly proportioned punched windows.

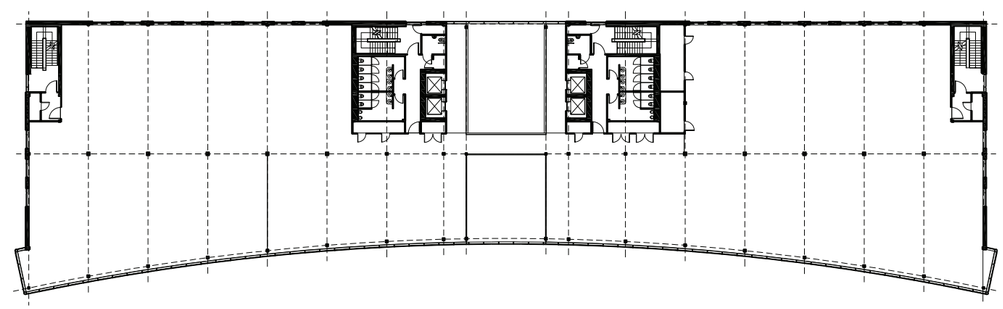
The major difference from Cobalt 16 was that the atrium would be located at the front rather than the rear. This created space for cellular accommodation in the area between the lifts on the upper floors.

A large proportion of the car parking was accommodated in a two storey deck located at the rear of the site and sunk into the ground. This was surrounded by dense planting to conceal it from the A19. As part of the project Ryder was asked to fit-out the ground floor of the building, including the restaurant and kitchen areas.

This was the first project at Cobalt to be completed using the new 3D building information modelling system, Autocad Revit. This exciting new technology enabled the Ryder team to model, test and present their thinking in 3D to the building contractors, engineers, and Highbridge Business Park. As well as bringing greater efficiencies, Autocad Revit ensured that information was created from one source model, improving accuracy and quality. In the long term it will also allow engineers and architects to exchange 3D models to detect potential clashes between pipe runs and structural components, further streamlining construction.



Ground Floor Plan



Upper Floor Plan

Cobalt 9A at a glance
NIA 102,650 square feet
GIA 120,601 square feet
Net : Gross 85%
Parking spaces 435
Parking ratio 1 space to 27 square metres GIA

Contract details
Commenced December 2006
Completed December 2007
Contract programme 52 weeks

2006
Cobalt 16
North Tyneside Council


Early Visualisation

North Tyneside Council (NTC) wanted to achieve greater operational effectiveness while improving the quality, suitability and sustainability of its office accommodation.

The new central offices at Cobalt 16 were seen as part of NTC's 'hub and spoke' model for the delivery of council services.

The new accommodation had to replace almost 40 separate sites. Highbridge Business Park, which had successfully tendered for the project, had to meet a demanding timeframe which allowed around six months for completion. NTC wanted a fully-fitted solution ready for immediate occupation.

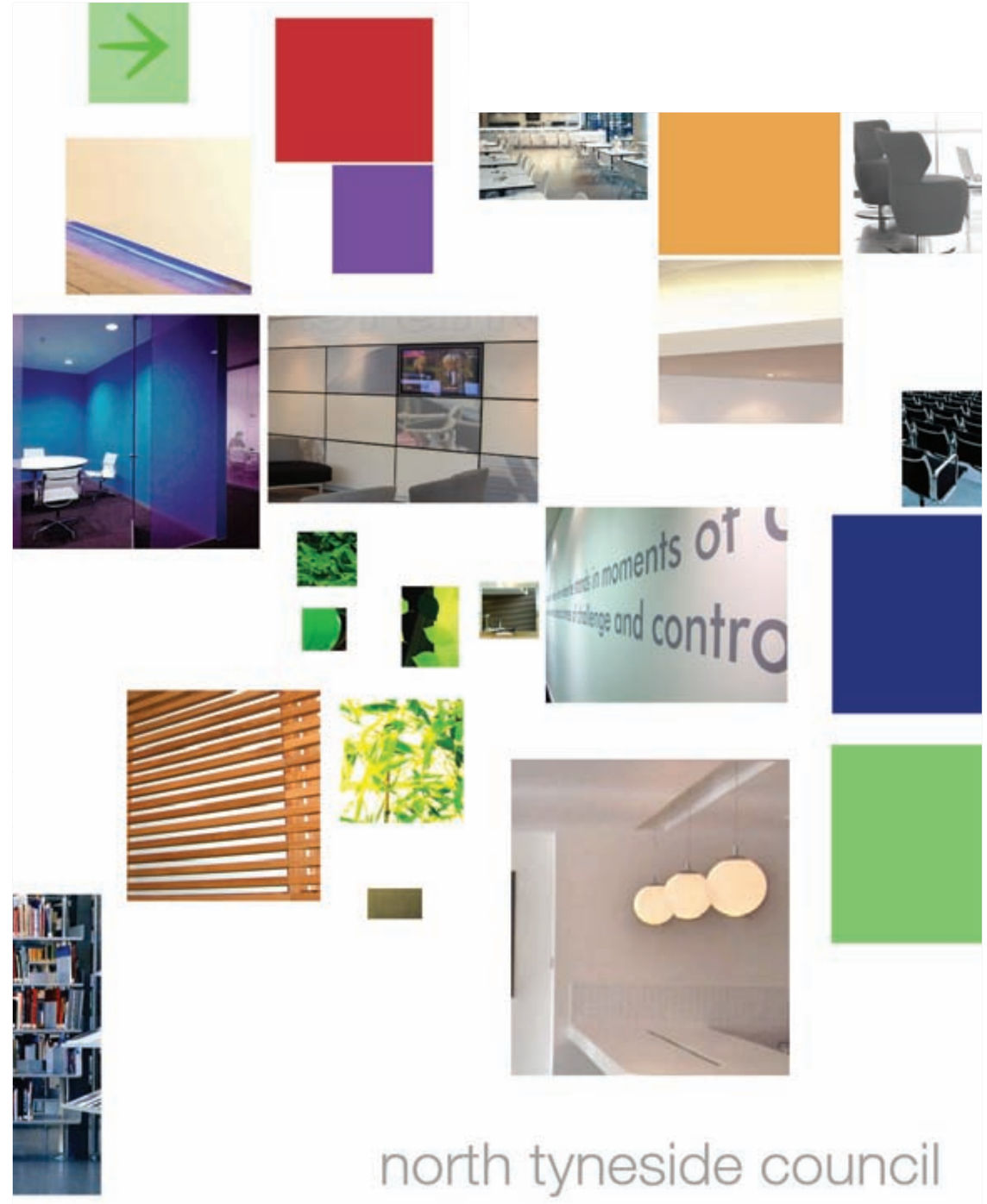
As well as providing a new central office for around 1,600 council staff, Cobalt 16 was required to accommodate all the civic facilities including a double height council chamber and formal meeting rooms.

The building was to be open plan, flexible and capable of encouraging new ways of working. It would also facilitate partnership and joint working and promote public access to services.

Ryder was able to reduce the floor area requirement by over 20 percent by providing creative design solutions such as doubling up the use of rooms, using a hotelling system to book them, desk sharing, rolling rack storage banks and a fast access off-site archive. Even so, it was necessary to extend the building to accommodate the civic suite, which included the double height council chamber.

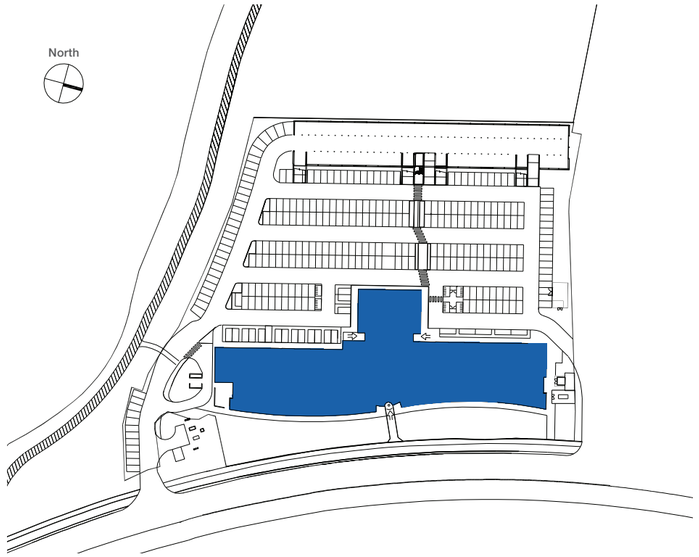
As the project evolved, further adjustments to the brief were made and the project team had to adapt quickly and flexibly. Through team working and commitment the design, delivery and fit-out were completed in a very short timescale.

Throughout the building, the design reflects NTC's aspirations for renewal and growth through relocation, as well its commitment to innovative services and structures. The council chamber, with its high acoustic standards, acts as a flexible space that can be subdivided to provide smaller meeting spaces.

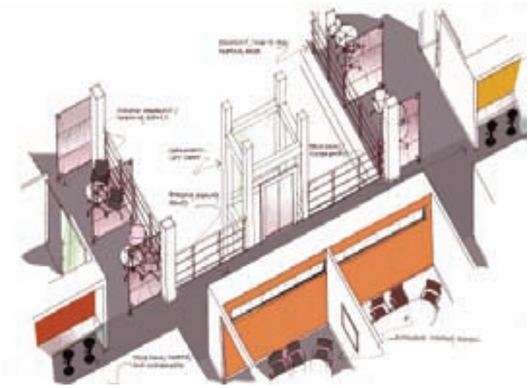


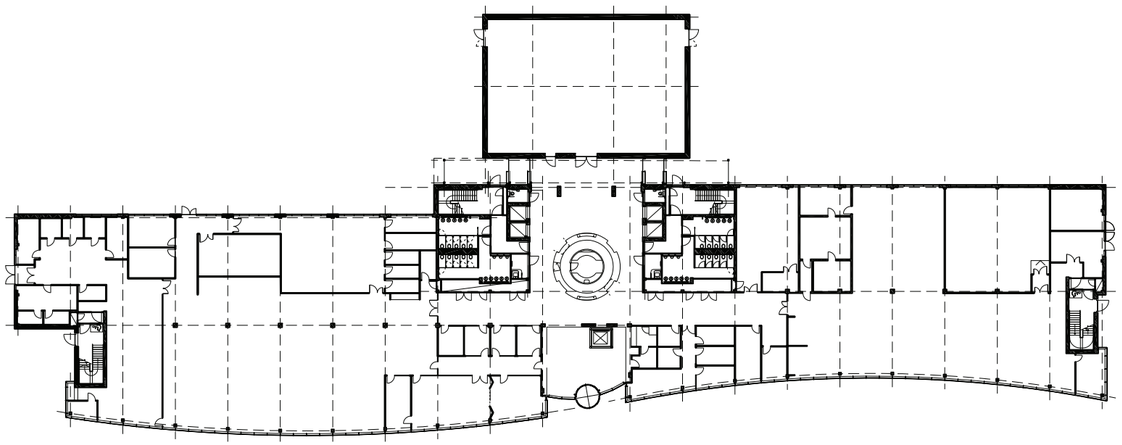
Cobalt 16 fit-out at a glance
NIA 115,575 square feet
GIA 139,392 square feet
Net : Gross 83%

Contract details
Commenced April 2007
Completed October 2007
Contract programme 27 weeks

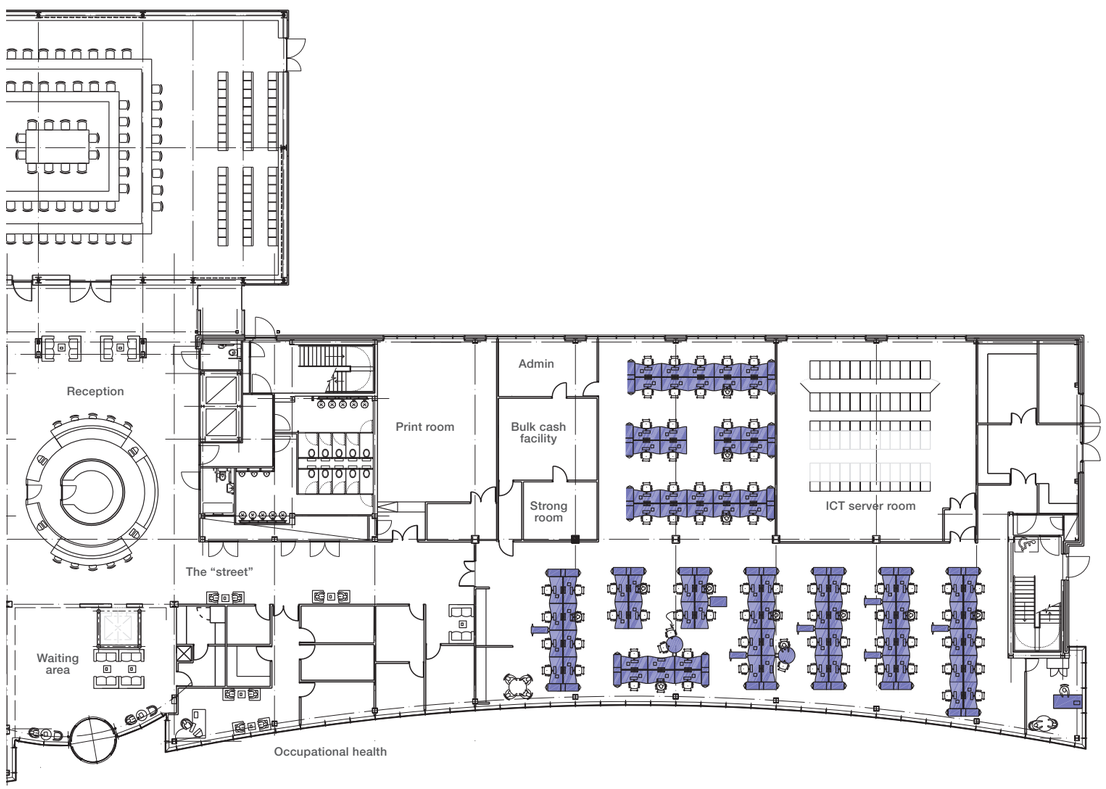


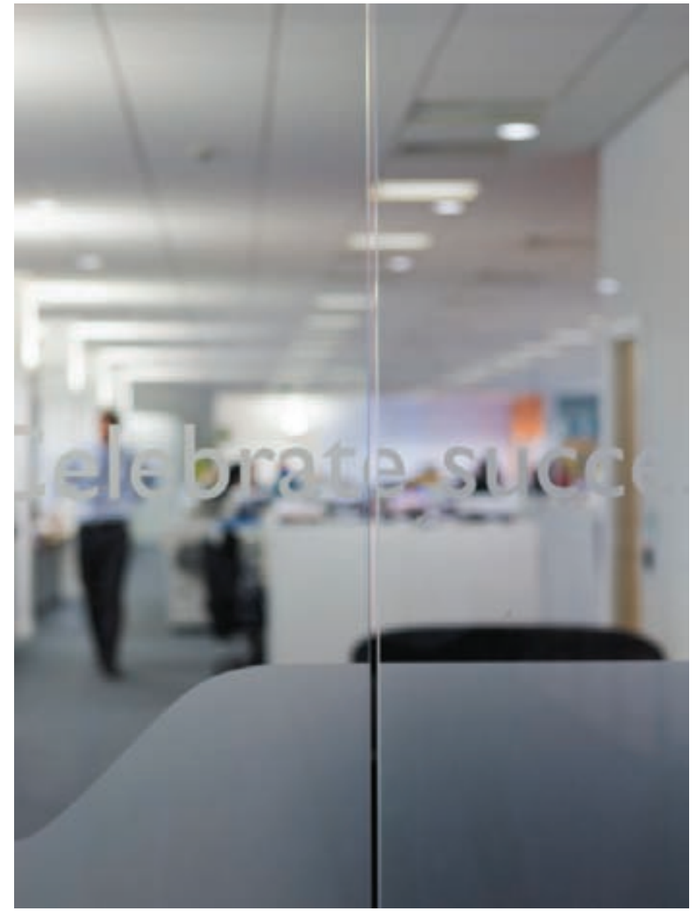
Site Plan

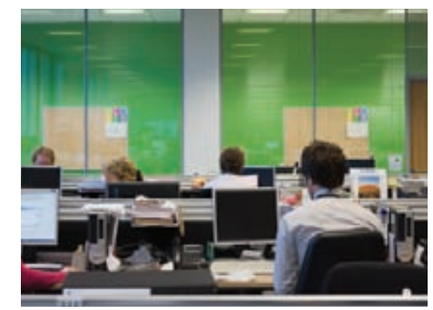


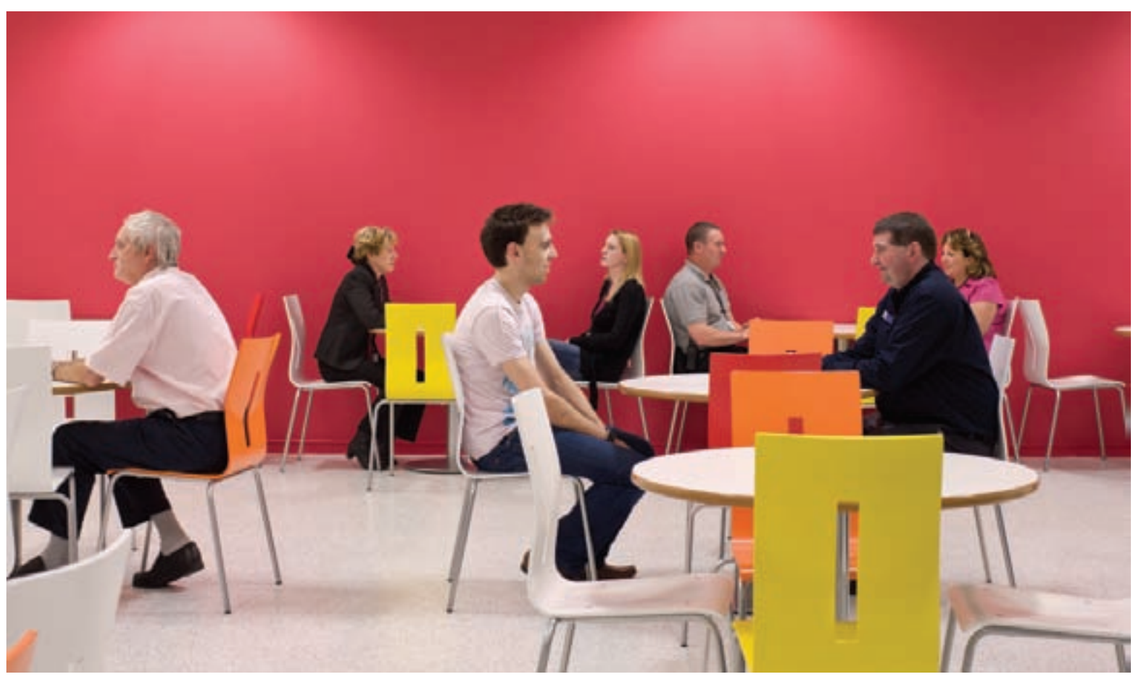


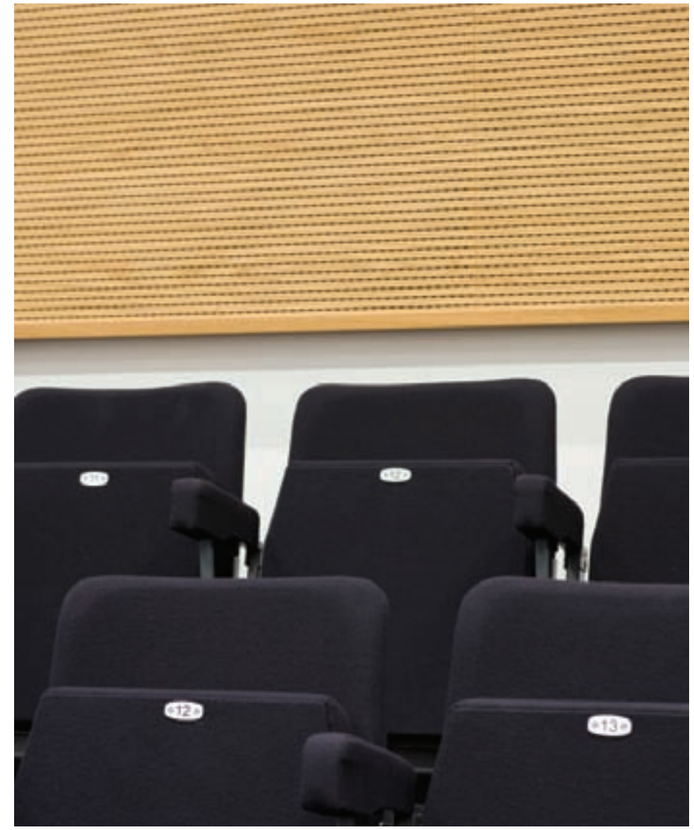
Ground Floor Plan









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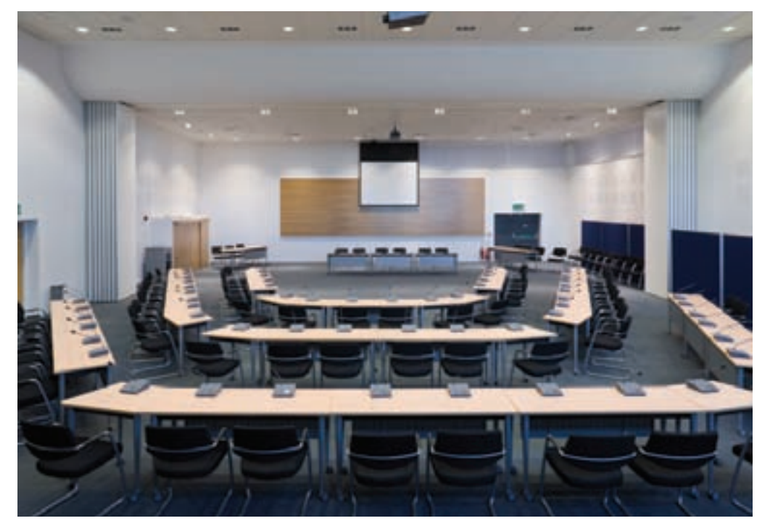



One council

2006
Cobalt 21

Cobalt 21 is the first building on Cobalt South and announces the southern entrance to the park.

As a speculative build in a key position it had to attract attention and work harmoniously with the other buildings in the park. It also had to address the new landscape feature – a one acre lake - which influenced the location of the building. The approach to the front entrance is via fully accessible paths across the lake.

The building envelope is based on the principles and specification established on previous phases of the park with large areas of curtain walling addressing the road, and elegantly proportioned brickwork facades to the rear car parking areas.

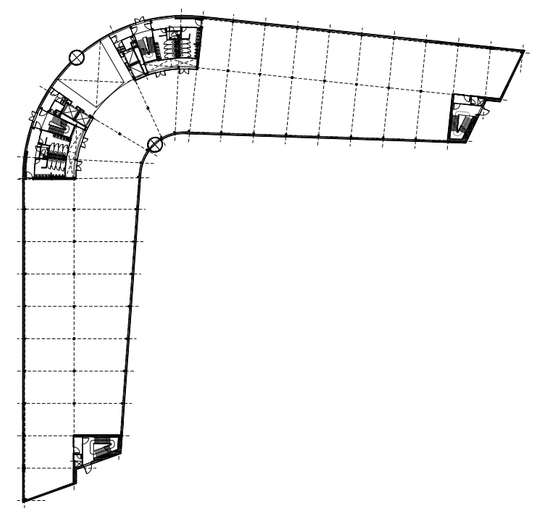
Both entrances lead into the core atrium area with full height, curved curtain walling. This also provides the main feature externally. The vertical transportation for the building and the core facilities are all directly off the atrium. This arrangement means two tenants could be completely self-contained.

At the end of each wing the building is anchored by a contrasting style of fenestration with horizontal ribbon windows in brickwork. Each wing tapers from the centre of the building towards the end, which allows a number of fitting out arrangements. These range from wide floors for customer contact centre use to narrower sections for cellularisation.

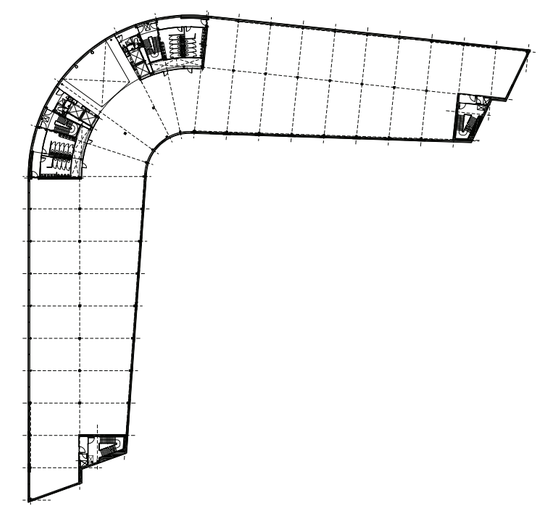
Cobalt 21 at a glance
NIA 101,503 square feet
GIA 118,792 square feet
Net : Gross 85%
Parking spaces 411
Parking ratio 1 space to 27 square metres GIA

Contract details
Commenced December 2006
Completed December 2007
Contract programme 50 weeks

Site Plan



Ground Floor Plan



First Floor Plan

2006
Cobalt 21
Newcastle Building Society

British Council for Offices ‘Best Commercial Workplace’ North of England, North Wales, Northern Ireland 2008

Newcastle Building Society (NBS) wanted to provide new consolidated accommodation for its staff and had a two phase project in mind.

Cobalt 21, which formed the first phase, was to provide 50,000 square feet of space. It would combine high levels of energy efficiency and space optimisation and would have to be delivered, completely fitted-out, within six months.

To meet the NBS requirement, the fit-out stage had to be completed at the same time as the base build. The other challenge was to meet all the society’s requirements within the available floor area. The solution needed to be innovative, with the doubling up of functions and creative storage solutions.

To optimise the use of space, the full height entrance atrium accommodates the main reception area as well as a hub that provides the building’s main vertical circulation.

The interior space is highly flexible. The tapering form of the building’s two wings supports a number of fitting out arrangements, ranging from wide floors for customer contact centre use to narrower floors for cellular offices. Through a combination of hot desking and the multi-use of space, the layout also allows departments to expand, contract and relocate easily.

Each person has a standard desk footprint onto which bolt-on components can be added to meet individual requirements. Clean and simple finishes ensure that every space supports the overall concept.

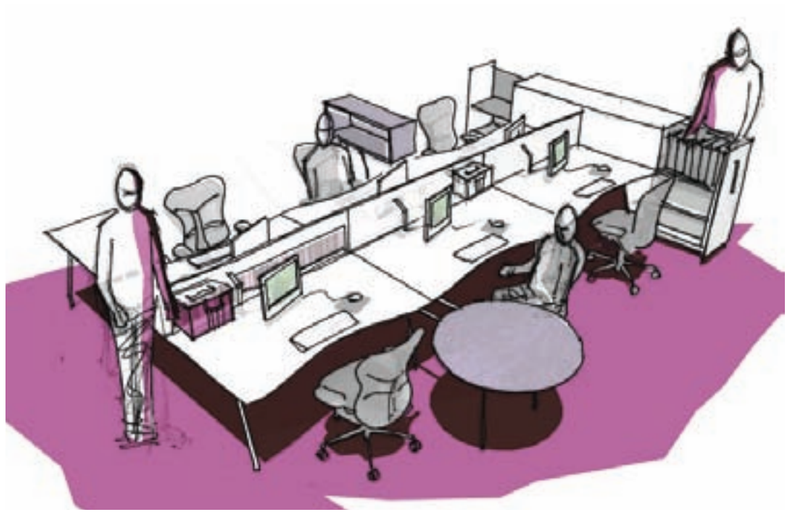
The office floorplates include project areas, technical break-out areas and resource points. Centralising these facilities ensures economy and efficiency throughout the working environment. Cellular meeting rooms, which can be booked via an internal hotelling system, are subdivisible and can also be used as corporate dining facilities.

The hub space enables activities such as waiting, meeting and working to take place in an informal setting. Its ‘hotel’ style also supports a number of staff-related functions and activities including training, a café, cloakrooms and lockers, a gym, storage, and central facilities such as reprographics, post room and IT support.

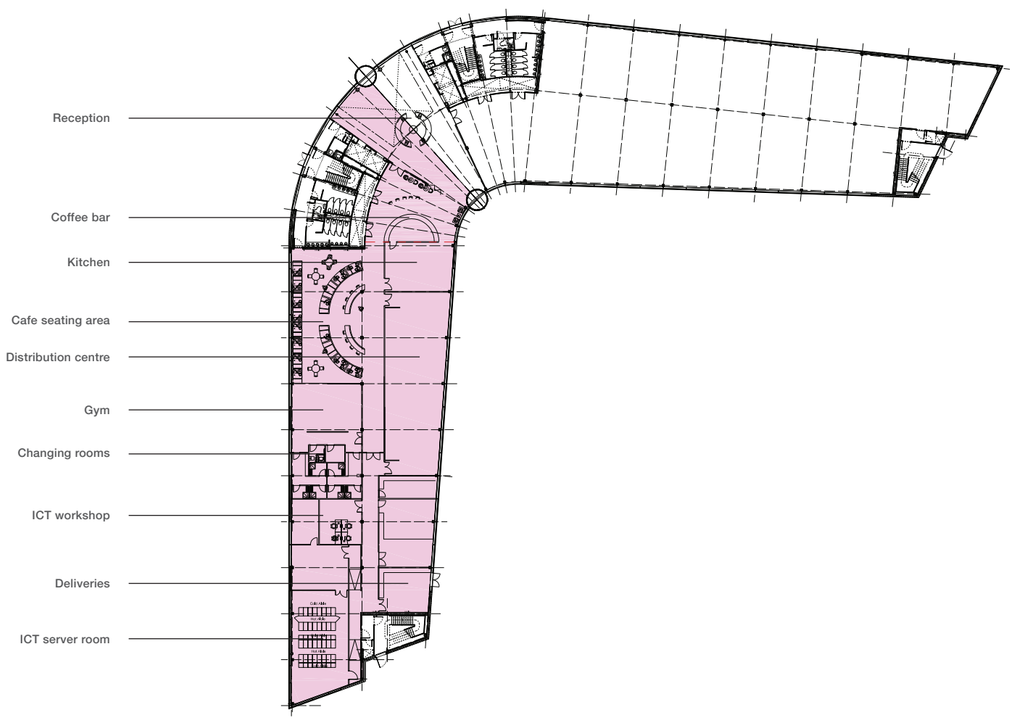
Centralisation of these functions reduces duplication, while maintenance can be performed outside main office environments. Simple branding, helpful graphics and contemporary furniture are all part of this elegant and functional solution.

Working spaces comprise ‘hard’ and ‘soft’ components. The hard, longer lasting elements include glass screens, doors, floors and ceilings. Finishes are neutral to maintain a long aesthetic and functional life. The soft, more changeable elements, such as colour graphics and branding, use applied finishes so that they can be replaced and updated as required.

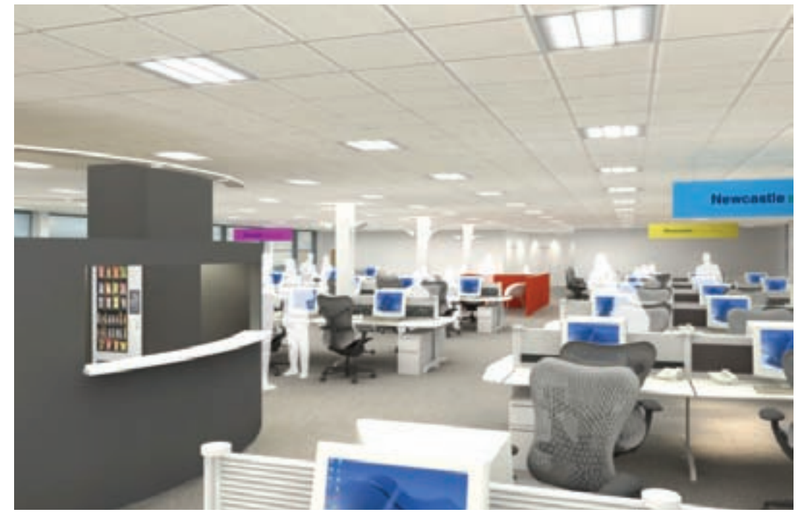
Concept Sketches

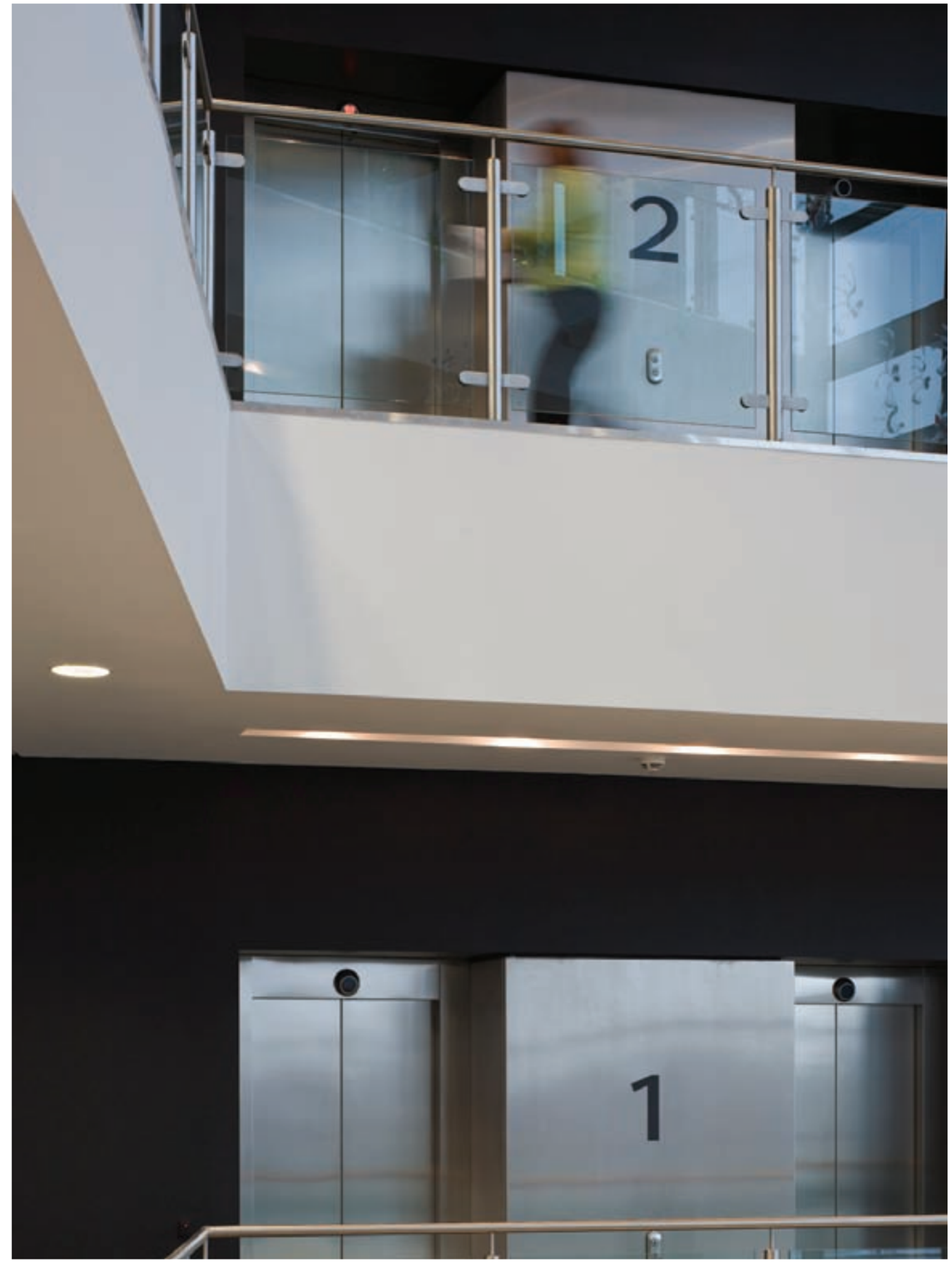


Desk Study



Ground Floor Plan

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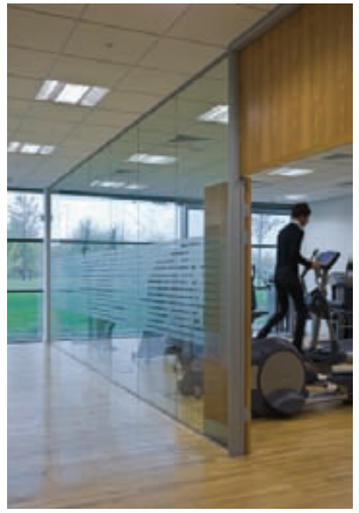
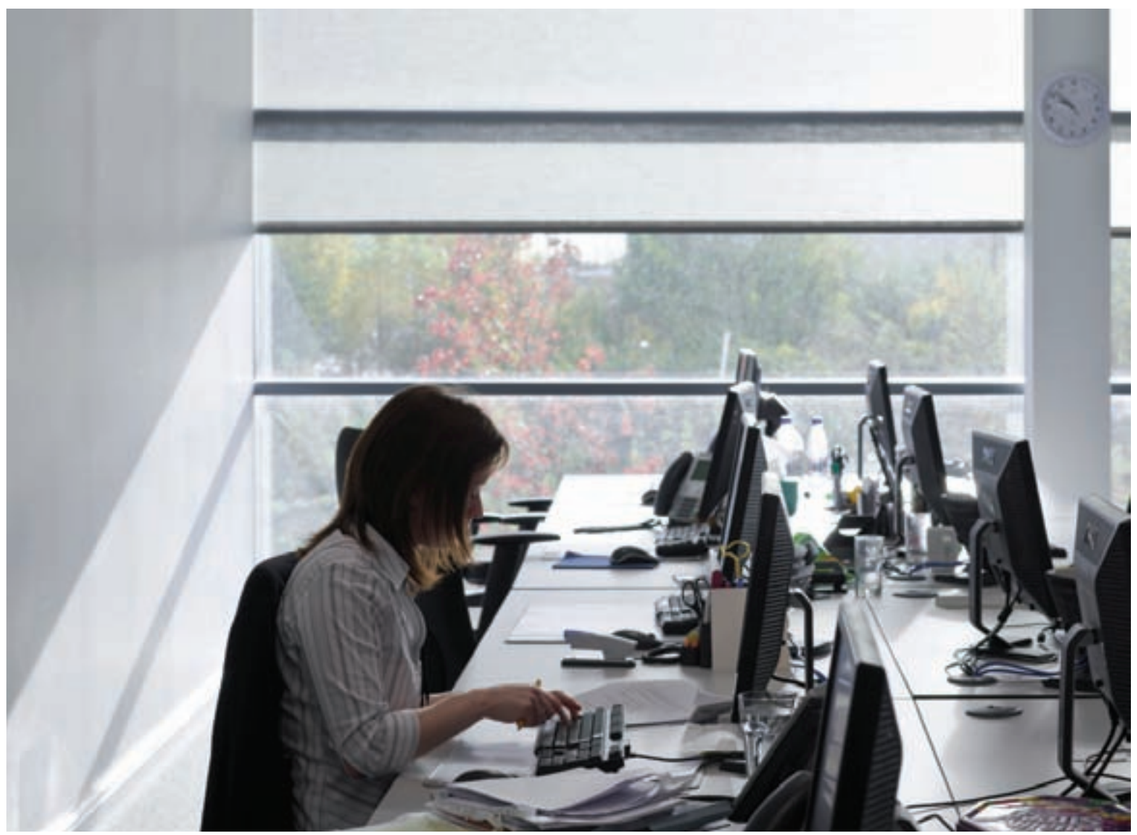
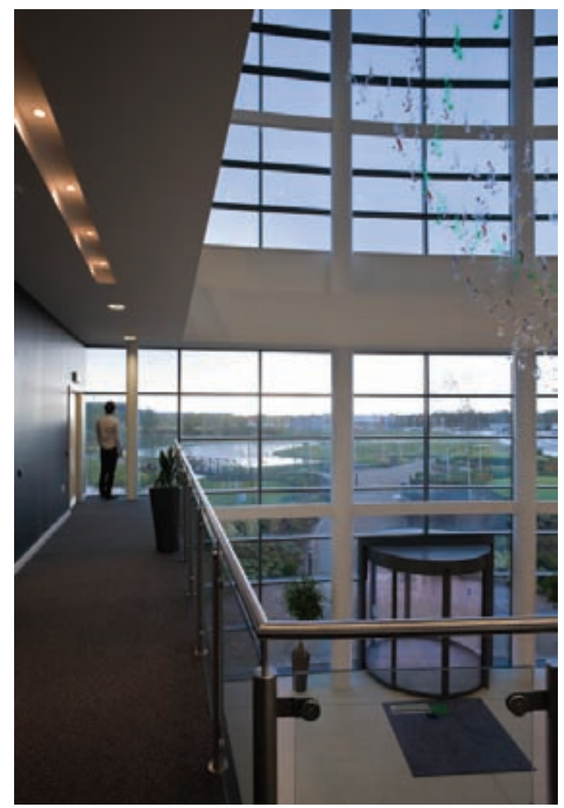




Cobalt 21 fit-out at a glance
NIA 49,857 square feet
GIA 57,335 square feet
Net : Gross 87%

Contract details
Commenced June 2007
Completed December 2007
Contract programme 26 weeks


Newcastle



2007
Snapshots
Around Cobalt

Sustainable travel
In an interview for BBC Look North in 2007 Bernard Garner, director general of Nexus, said: “Of the over 7,500 current employees at Cobalt, one third are using sustainable ways to access their employment on a daily basis. If we could replicate that across the rest of Tyne and Wear then we would have a massive impact on our environment and congestion levels.”

The ‘Stephenson jobs corridor’ links a variety of schemes via the A19 development corridor and the Enterprise Zone. It includes a new cross Tyne ferry, a new Metro route and a new bus interchange. It is particularly beneficial to Cobalt because it provides a fast link to Metro stations to the north and south.

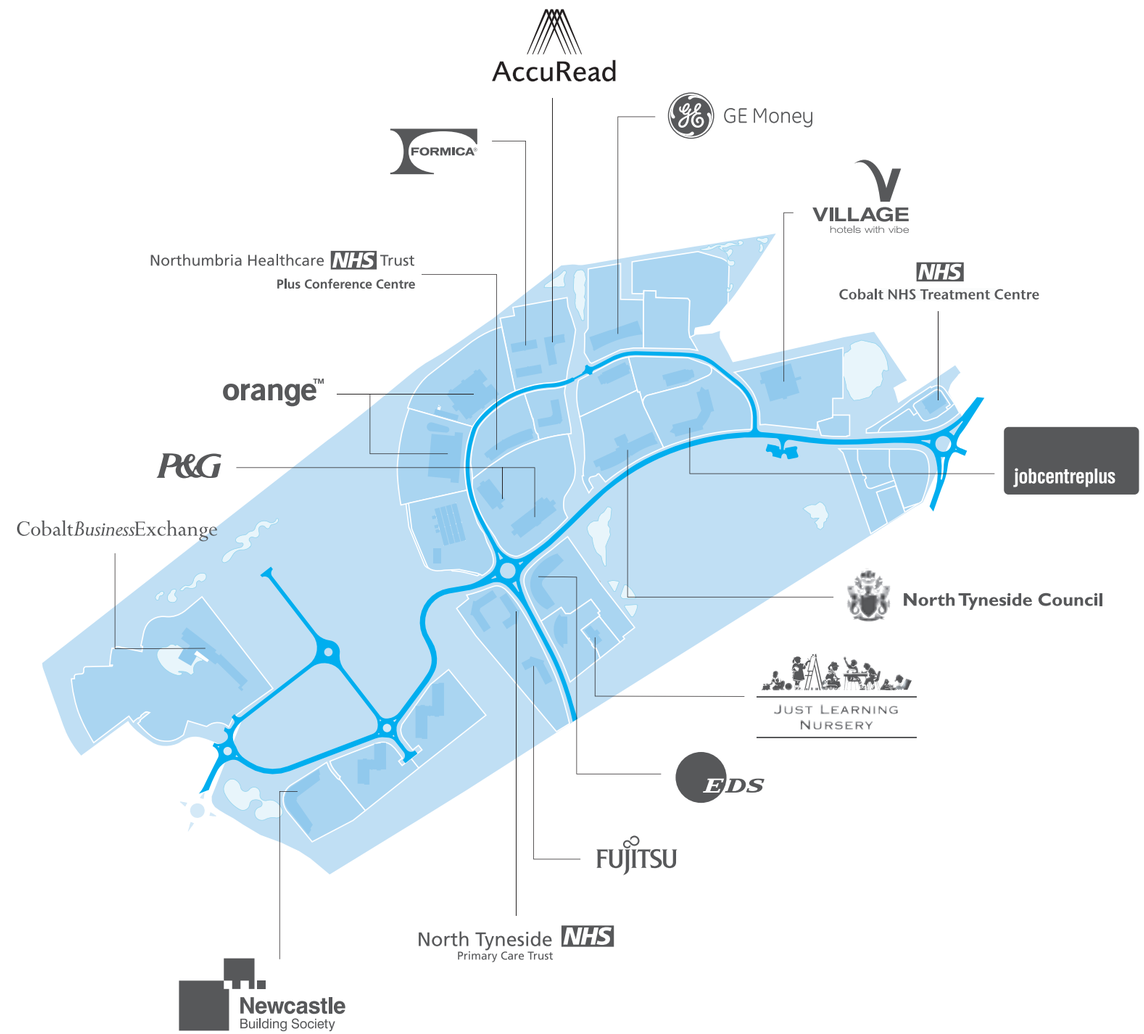
Cobalt Business Park has a transport coordinator who advises companies and employees on the most efficient travel arrangements. As well as its bus services the site has car sharing and cycle sharing schemes.

Building a more natural habitat
Cobalt is proud to be one of the UK’s more eco-aware sites. Within commercial constraints it has used the land available to create wetlands and other habitats, working with the local authority and other advisers to help protect species such as the great crested newt. The result is a more beautiful landscape for Cobalt and the community and a valuable new amenity for visitors from the surrounding area.

Building the Cobalt community
Today over 9,000 people work at Cobalt. The next few years will see Cobalt continue to develop.

It already has an hotel and leisure club and a health clinic. Shops are also being planned. The Just Learning crèche, which opened in 2003, provides an essential facility for parents working at Cobalt.

Facilities such as these will help to provide people on this pioneering site with the facilities they need for a more enjoyable and productive working day.



2007
Cobalt looks ahead

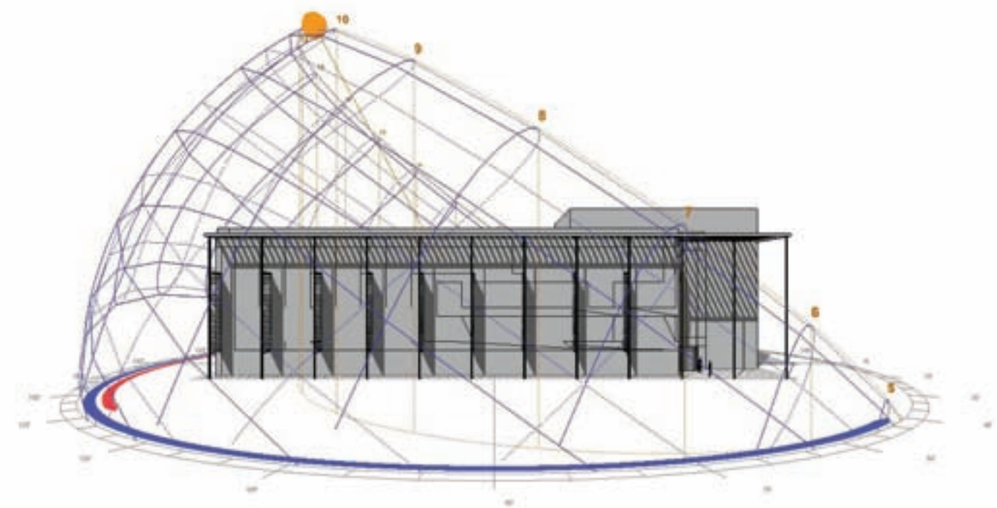
Sustainability
During 2007, the design of highly energy efficient solutions became a priority. Led by Highbridge Business Park and influenced by the requirements of the 2010 Building Regulations, the design team sought new ways to reduce the overall carbon footprint of the buildings.

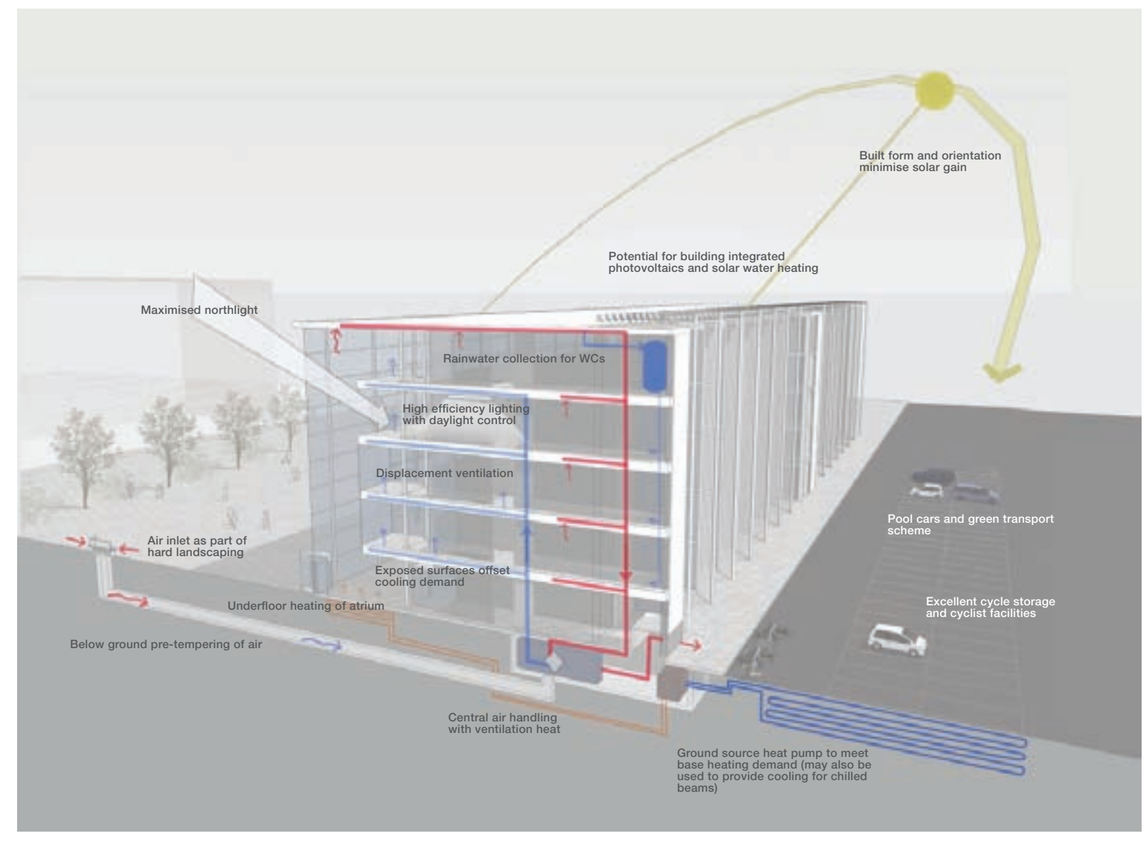
By increasing the flexibility of the designs buildings were 'futureproofed' giving users the opportunity to add further environmental measures as they develop, such as solar technology and water recycling.

Highbridge Business Park wanted to maintain high levels of natural daylight and visual impact by retaining glazing to the main façades wherever possible. As a result it was necessary to orientate buildings so that their major elevations faced north or south with the addition of brise soleil to east, south and west elevations. Using brise soleil to reduce solar gain means it is also possible to replace tinted glass with clear glass.

Insulation standards were increased, as were insulated wall areas.

And variable refrigerant flow (VRF) technology for temperature management within the buildings was introduced.





Cobalt South masterplan

The final part of the Cobalt South masterplanning exercise began at the end of 2007. In the meantime Highbridge Business Park had purchased a former manufacturing site on the estate, bringing with it the potential to generate an additional 3,000 jobs on the park.

The Cobalt South masterplan now included new landscaped feature spaces which would create enhanced settings for the buildings. The existing landscaping, created to form a barrier between the former Enterprise Zone areas, would be remodelled to establish a strong recreational and visual link between Cobalt North and Cobalt South.

The future

This overview looks at the first 10 years of development at Cobalt.

Sustainable design, developing technologies, changes in the market and in working patterns are all part of the big picture. They all influence how the park develops. However one thing remains constant, the commitment of all those involved to deliver top quality design and functionality.

From the outset, Highbridge Business Park has striven to raise the standard of design of the buildings in order to keep ahead of rival schemes in the market place.

We will continue to aim to set the benchmark for excellence in workplace design.


Visualisation


December 2008

developing functional, sustainable, flexible and beautiful spaces

Those involved in developing Cobalt

Organisations
Addleshaw Goddard, formerly Theodore Goddard
Anthony Walker and Partners
Berwin Leighton
Billinghurst George and Partners
Bowmer & Kirkland
CB Richard Ellis
Cadenza
Chestertons
Cundall
Cushman Wakefield Healey and Baker
DMS
Drivers Jonas
Duncan Bradon
EC Harris
Eversheds
FDTamesis
Flying Fish
GVA Grimley
Hall and Partners
Interserve, formerly Tilbury Douglas
King Sturge
LaPot
MDA
McBains Cooper
Merz and McLellan
NLP
NG Bailey
North Tyneside City Challenge
North Tyneside Council
Operon, formerly IBSEC
Ryden
Ryder Architecture, formerly Ryder Nicklin
TWeDCo
Waterman

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Peter Barker
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Ian Davison
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Paul Fairley
Mark Gifford
Trevor Grant
Simon Grundy
David Harland
Scott Hills
Michael Hughes
Marc Johnson
Graham McDarby
Richard Noble
Russell Nolan
James Peat
Naomi Peck
Michael Penrose
Mark Plant
Gaby Pride
Ken Renforth
Christine Richardson
Paul Richardson
Bruce Riches
Andy Roberts
Simon Robertson
Laura Robinson
Simon Rutter
Sarah Sabin
Kayleigh Scott
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Jason Tennet
Alex Thomas
Mark Thompson
Luke Westoe
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Craig Yeaman
Paul Young

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Paper
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Inner
Scheufelen, Consort Royal
www.scheufelen.com

All stock from sustainable sources