



# **Innovation and planning in the healthcare estate: recent examples and trends**

**Susan Francis  
Programme Director  
Architects for Health  
EuHPN Copenhagen Oct 2012**



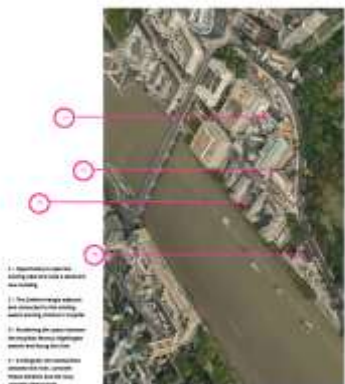
- **Events for members**
  - Learning events on topics of significant interest
  - Visits to recent projects
  - Collaborations
  - Website with Twitter and Facebook
- **Student Design Charette and Award**
- **Influencing:** policy context, clinical engagement
- **International links:** Australia, Canada, Japan, Norway, Sweden, Finland, Switzerland, Brazil, Denmark .....
- [www.architectsforhealth.com](http://www.architectsforhealth.com)
- [info@architectsforhealth.com](mailto:info@architectsforhealth.com)

A r H

## Student design winning scheme 2012

Supported by  
**mace**

St Thomas' Hospital Sites:



Guy's and St Thomas' NHS Foundation Trust











**Southmead Hospital North Bristol**  
Site analysis and masterplan for suburban site





## Southmead Hospital North Bristol

Site analysis and masterplan for suburban site



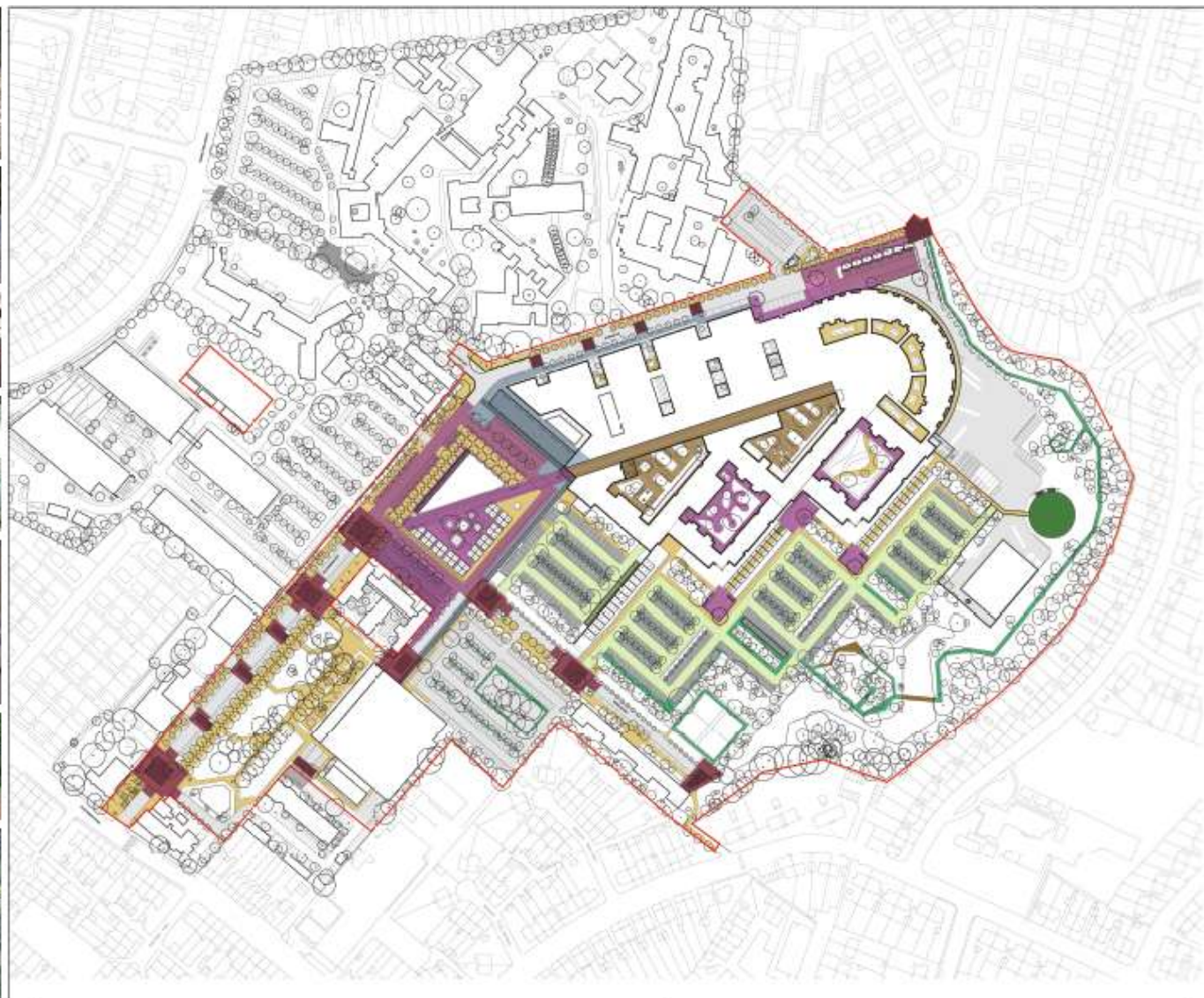


## KEY:

- Historic gateways
- Historic buildings
- Existing buildings
- Existing trees
- Proposed trees



# Skanska Innisfree : Greenhill Jenner and Nightingales



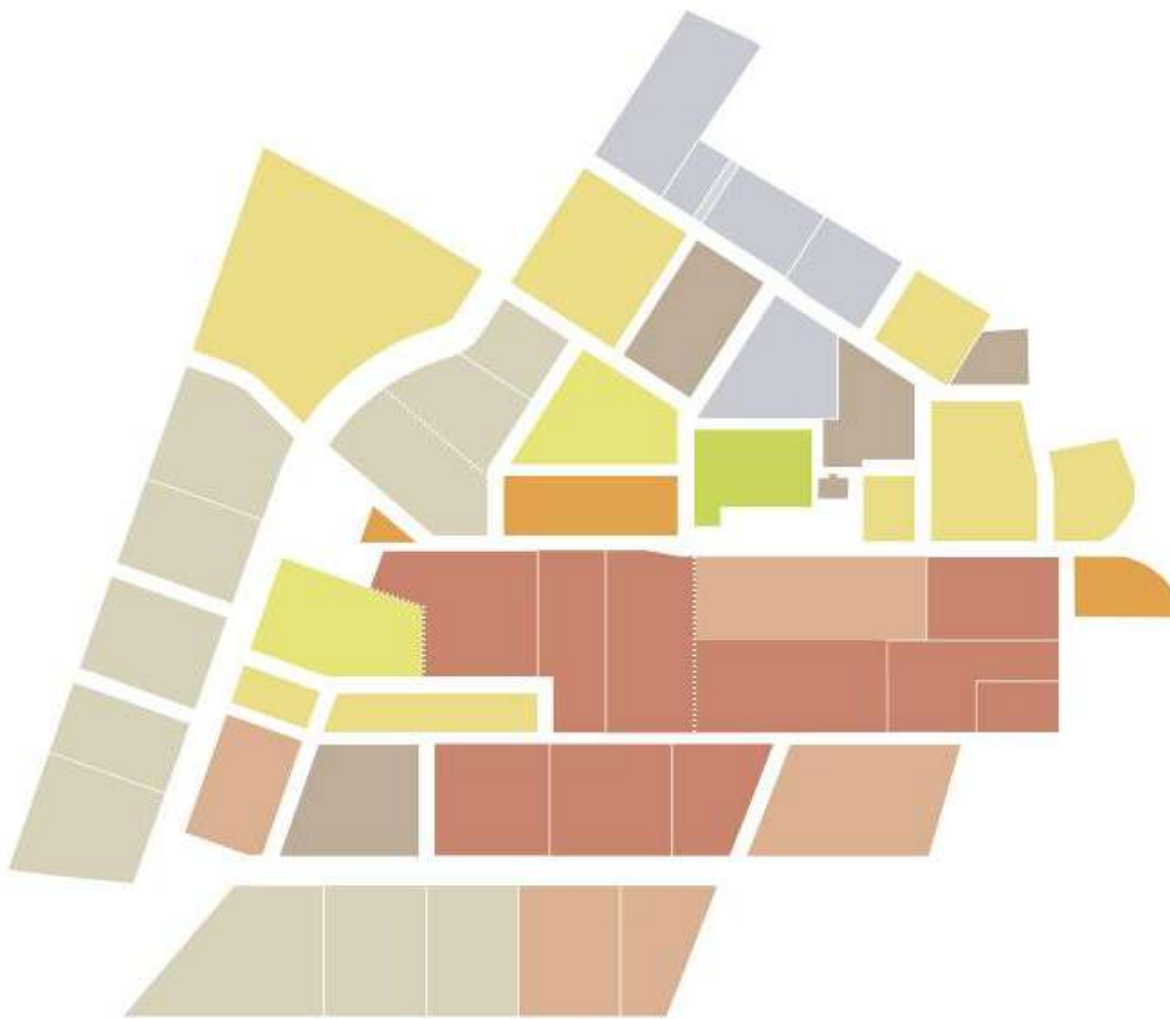
- K7H:
- Central Square traffic routes and ASE drop off car-park. Shared surface detailing eg. flush kerbs and distinctive high quality concrete block paving to co-ordinate with paving of pedestrian areas.
  - Central Square and Meeting Courtyards. Reconstituted stone paving to co-ordinate with internal floor finishes of Concourse A & Sections of Contermporary (porcelain tile included in brown fabric).
  - Building threshold and linkage to multi-storey. Quality reconstituted pavers with matching edge restraint.
  - Pedestrian footways. Resin-bonded gravel with quality concrete kerb with exposed natural stone aggregate adjacent to roads, and quality concrete pin kerb in other areas.
  - Shared Surfaces (gateways) High quality black paving with natural stone aggregate. Area defined by quality concrete kerbs with exposed natural stone aggregate (dark finish).
  - Tarmac footways and vehicular circulation with precast concrete kerbs.
  - Staff parking bays. High quality porous black paving.
  - Tarmac, as above, but with exposed aggregate top dressing (10% of area surf stone chippings).
  - Hedges. Reinforced grass with resin-bonded gravel footway access to helicopter.
  - Timber boardwalk.
  - Resin-bonded gravel footpaths and tree reservations with timber edge for paths, and precast concrete pin kerbs for parking.







- Clinical
- Clinical + Academic / Translational Research
- Academic / Institutional Research
- Academic / Translational Research
- Clinical, Leisure or Academic / Translations
- Leisure, Hotel, Retail etc
- Other: car parks, Energy Centre, Plant etc.
- Commercial Research
- Residential
- Public access
- No build zone



## Addenbrookes Hospital Cambridge

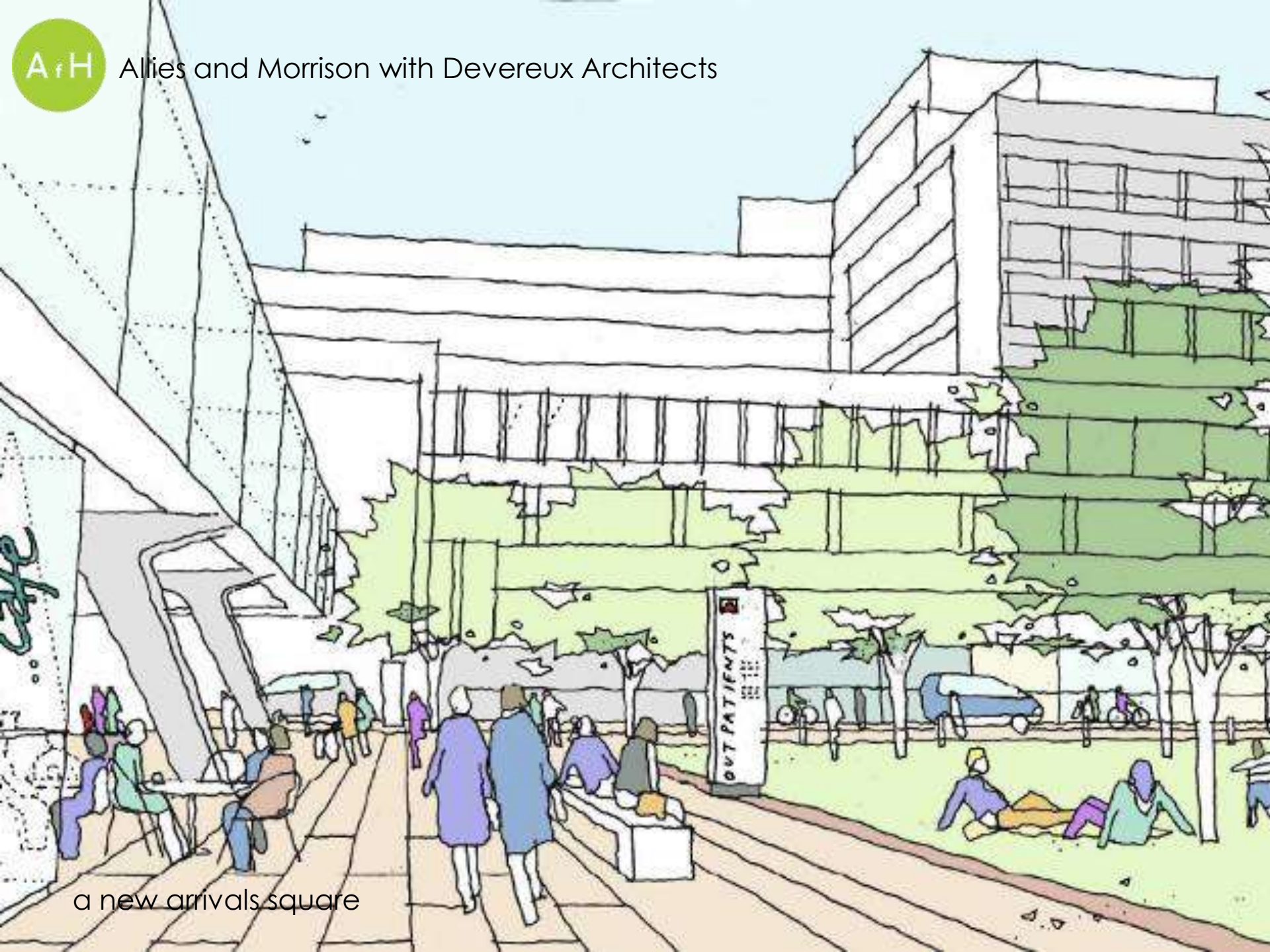
Mix of uses on existing site





Interventions that offer a sense of place and help orientation





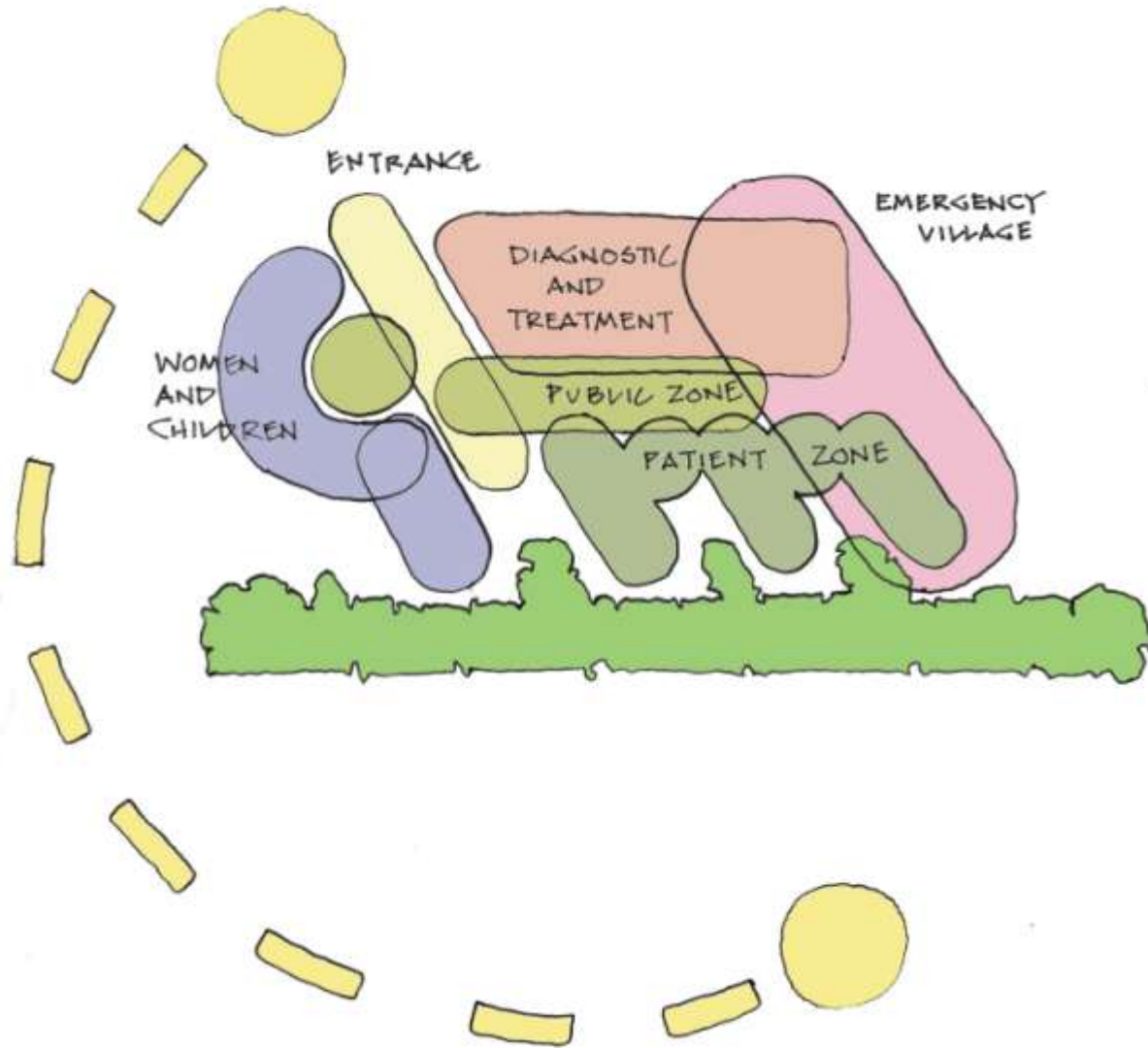
a new arrivals square





## Rosie Perinatal Hospital at Addenbrooke's, Cambridge

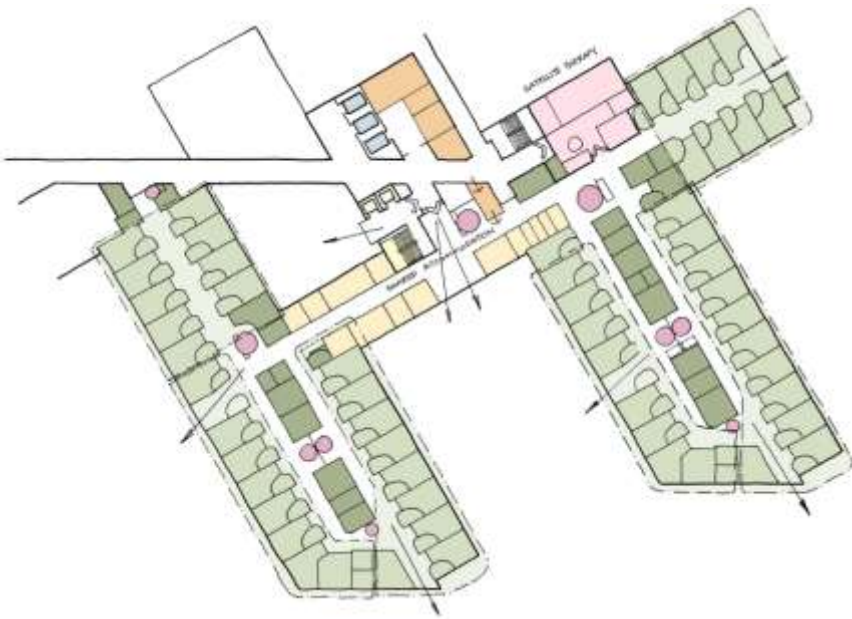
A facility with more delivery options. A non-healthcare environment that encourages



### Tunbridge Wells Hospital at Pembury, Kent, England

Pembury sets a new gold standard in acute healthcare provision within the public sector.





### Tunbridge Wells Hospital at Pembury, Kent, England

Efficient, clean and safe, Pembury sets a new gold standard in acute healthcare provision within the public sector.



## **Tunbridge Wells Hospital at Pembury, Kent, England**

View from desk to reception and main waiting. Plenty of light, natural finishes and clear sight-lines create a pleasant and legible arrival.





## **Tunbridge Wells Hospital at Pembury, Kent, England**

100% of Pembury's 500 beds are provided in comfortable single rooms with own en-suites. All look onto woodland and nature





### **Alder Hey Children's Health Park, Liverpool, England**

A hospital without precedent - the hospital and park are integrated for the therapeutic benefit of children.





## **South Glasgow Hospital, Glasgow, Scotland**

A 14 storey, 1349 bed acute adult and children's 'super hospital'. Virtually 100% single bedrooms, embedded arts strategy and designed for BREEAM 'Excellent'.



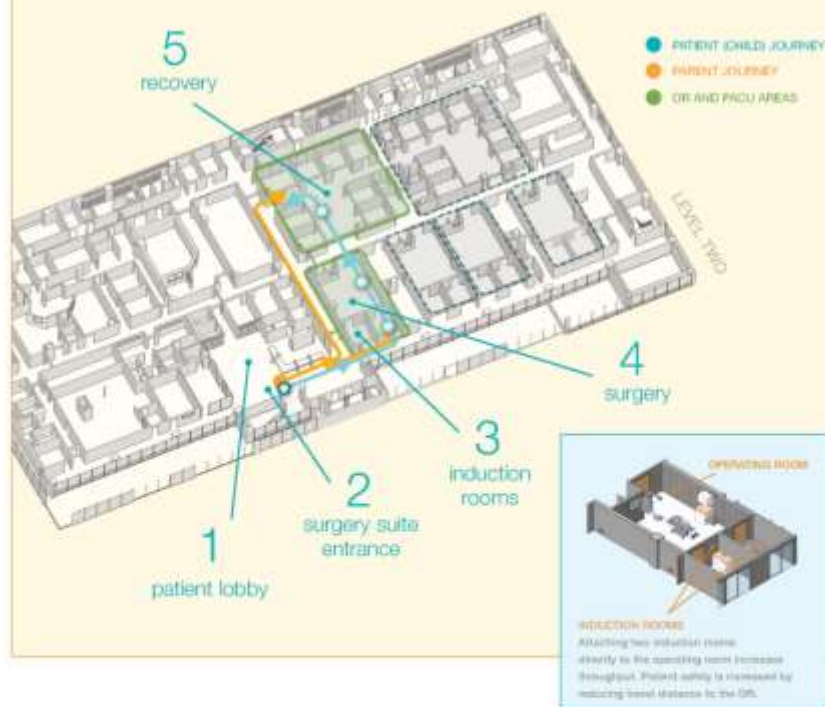


**Seattle Children's Bellevue Clinic and Surgery Center, Washington, USA.**

Use of Lean continuous process improvement methodologies and full-scale mock-ups as design tools achieved a 27% increase in space efficiency.



## ONE PIECE FLOW



## PEACE OF MIND

The project team gave a lot of thought to the experience of taking a child into surgery. The "one piece flow" design concept creates a parent journey focused on easing the mind through use of daylight and calming views and by allowing parents to stay with their child for as long as possible (including anesthesia).

One of the most significant outcomes of Continuous Performance Improvement was the decision to connect induction rooms to the operating room. The idea, which was developed during prototype testing, gives peace of mind to parents who can accompany their child until the time of surgery.

Not only are parents with their child longer, the location of the pre-operating rooms maximizes safety and diminishes the risk of infection by eliminating the time consuming journey from traditional hospital room to the OR. Anesthesiologists can now sedate patients directly outside the OR, dramatically reducing fees and increasing throughput.

A more efficient approach to the PACU was its division into two clusters so one side can be shut down when it is not in use. A centralized staff zone in each recovery bay allows a greater line of sight. Skylights illuminate the team area, which does not traditionally have access to natural light.

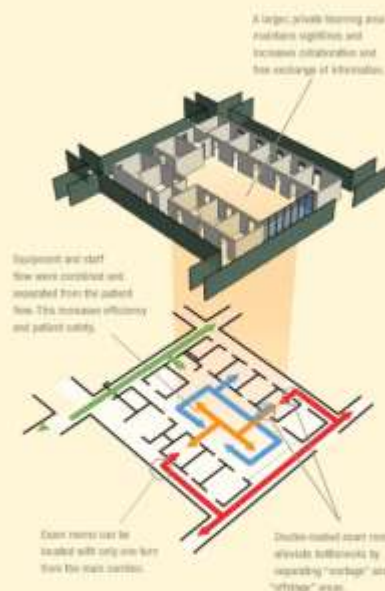
## TRADITIONAL FLOW: BEFORE CPI

Traditionally, all healthcare flows move through the same door into an exam room that is positioned around a staff work area. This results in congestion and compromises the optimal experience of staff, patients, and families.



## OPTIMIZED FLOW: AFTER CPI

Patients and families are given their own circulation which improves wayfinding and experience. By giving staff a secondary entrance into the exam room, their immediate environment can house equipment and supplies closer to the point of use within a dedicated "learning area."



## CONTINUOUS PERFORMANCE IMPROVEMENT

CPI takes a holistic look at the "flows of healthcare" with the goal of identifying the safest, most efficient and family-friendly experience. By evaluating these flows early in the process, the design team selected smarter solutions and integrated them faster and cheaper than a traditional hospital project of this kind.

At Seattle Children's, some flows are parallel others, so the traditional seven flows are simplified to four.

- 1 patients + families
- 2 physicians + staff
- 3 supplies
- 4 equipment + information







### **Integrated Urgent Care Centre, Weston General Hospital Somerset, England**

A fully integrated Urgent Care centre incorporating sedum roof, timber frame, timber cladding and timber linings achieving BREEAM excellent.





CODA Architects







### **Cynon Valley Community Hospital Community Dental, Mid Glamorgan, Wales**

State of the art Dental facility with superior finishes & attention to control of infection has been included adjacent to a mixed social & community function.





Trevor Burrows Photography

## Cynon Valley Community Hospital Community Dental, Mid Glamorgan, Wales

Bright colours are introduced on the signage in the atrium as part of the wayfinding strategy corresponding with those used in the departments.





## The Children's Hospital, Sheffield, England

Competition winning scheme for a new main entrance, OPD and bedroom wing transforms the public face of the hospital. 2011- 2015.



## Medical Centre, Halifax, West Yorkshire, England

A 1760's listed building exhibiting a striking relationship between old and new.





## **Houghton le Spring Primary Care Centre Sunderland**

First health building in the UK to be recognised as BREEAM Outstanding



**Houghton le Spring Primary Care Centre, Sunderland**

Naturally ventilated building using a ventilated spine wall

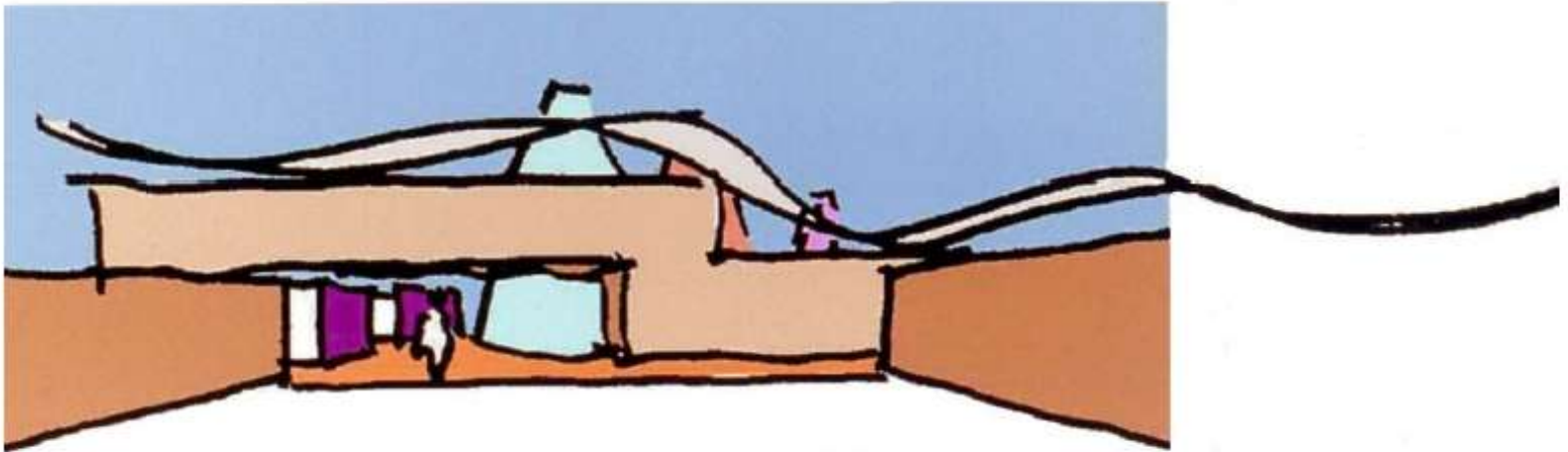




**Roseberry Park Hospital, Middlesbrough, England**  
RIBA Award winner 2012

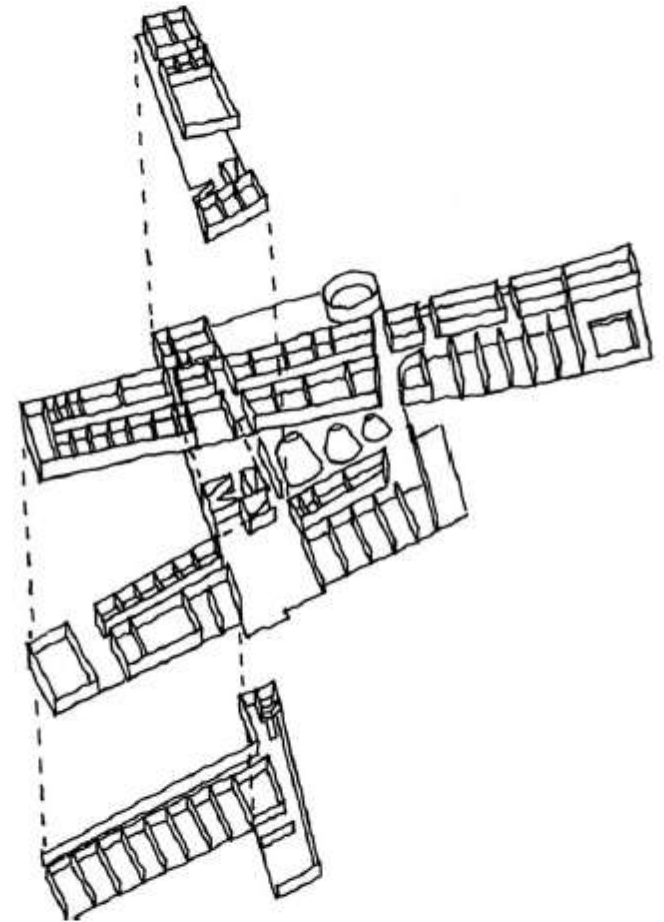
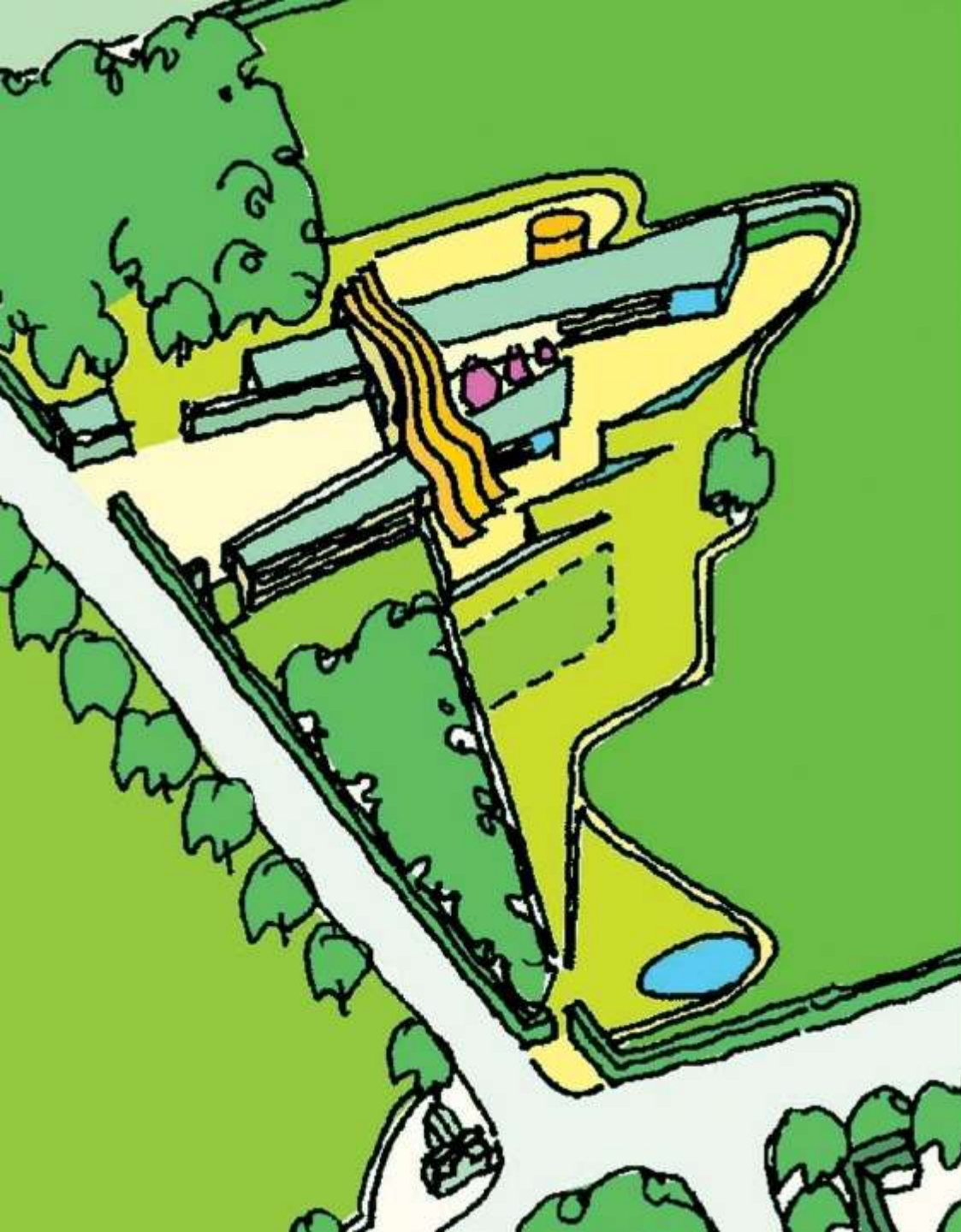


Gareth Hoskins Architects



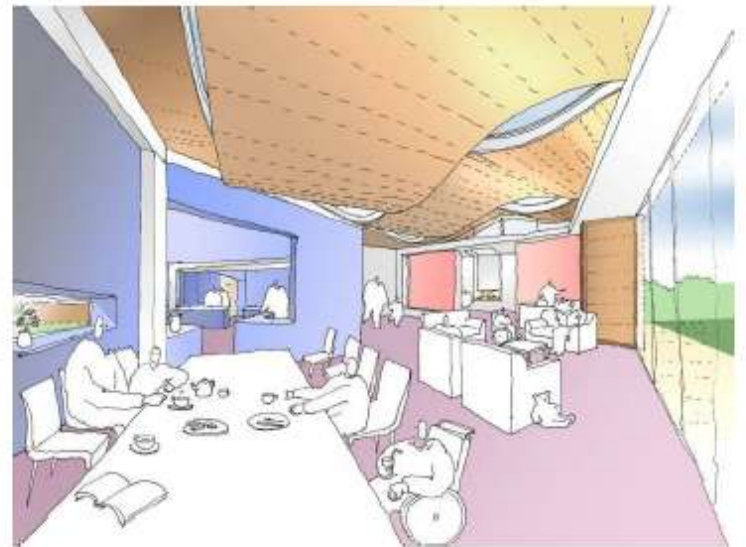
**Childrens Hospice Lock Lomond** concept











garethhoskinsarchitects







### **Altnagalvin Hospital, Radiotherapy department, Londonderry, Northern Ireland**

Exploding the elements of heavy Radiotherapy accommodation, fragmenting them into disciplined rocks rising from the surrounding woodland.





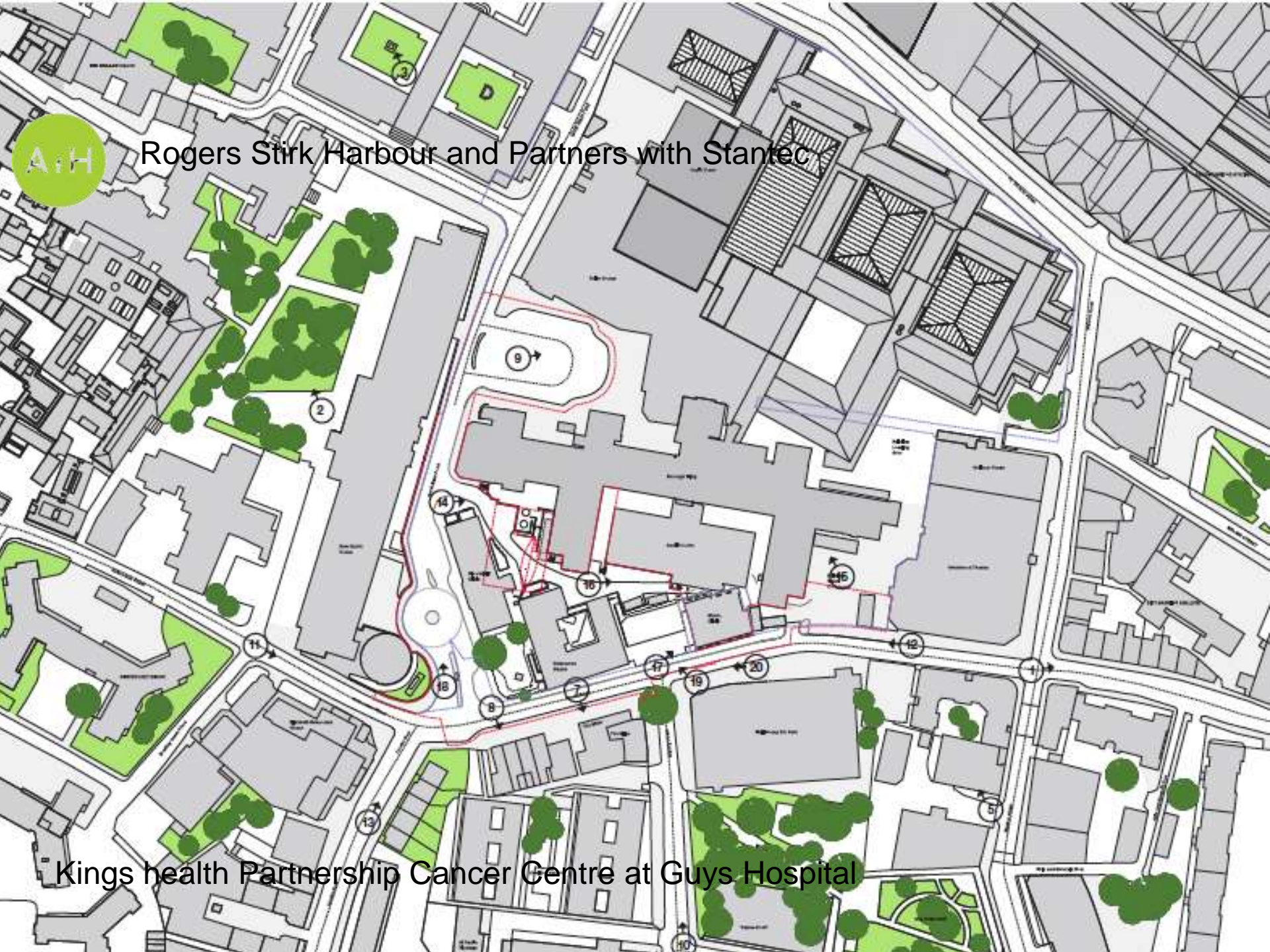
**NBBJ in collaboration with P+HS Architects - Endeavour Radiotherapy Unit, James Cook University Hospital, Middlesbrough, England.**

Marriage of state-of-the-art cancer treatment technology with a holistic patient environment puts James Cook at the forefront of Cancer Care.



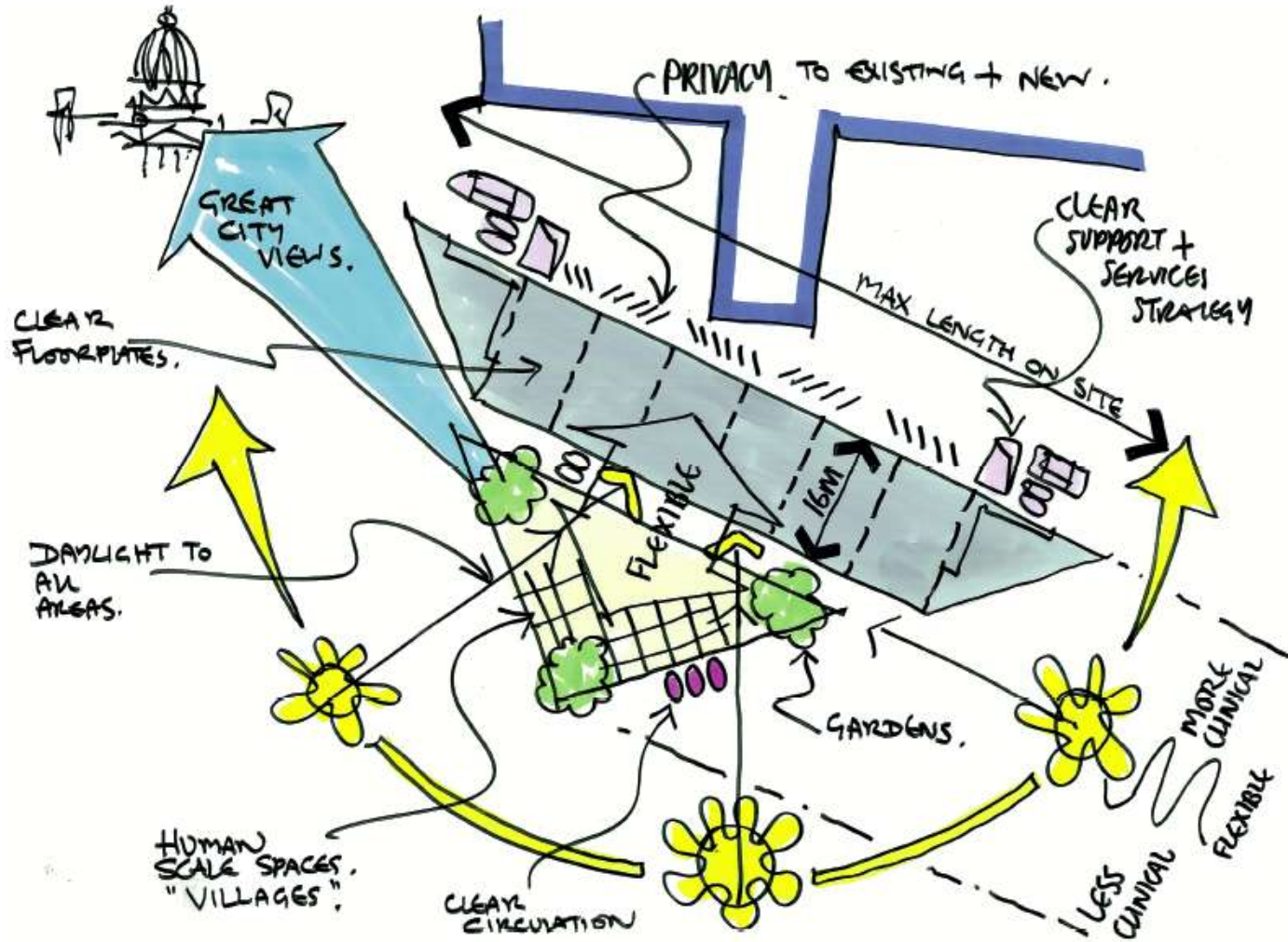


Rogers Stirk Harbour and Partners with Stantec

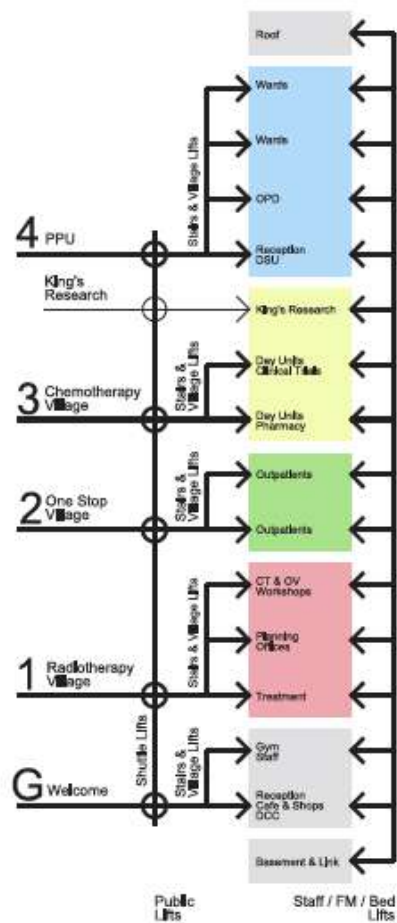


Kings health Partnership Cancer Centre at Guys Hospital











King's Health Partners – Cancer Centre at Guy's







**Barts Cancer Centre London**  
Listed building around courtyard









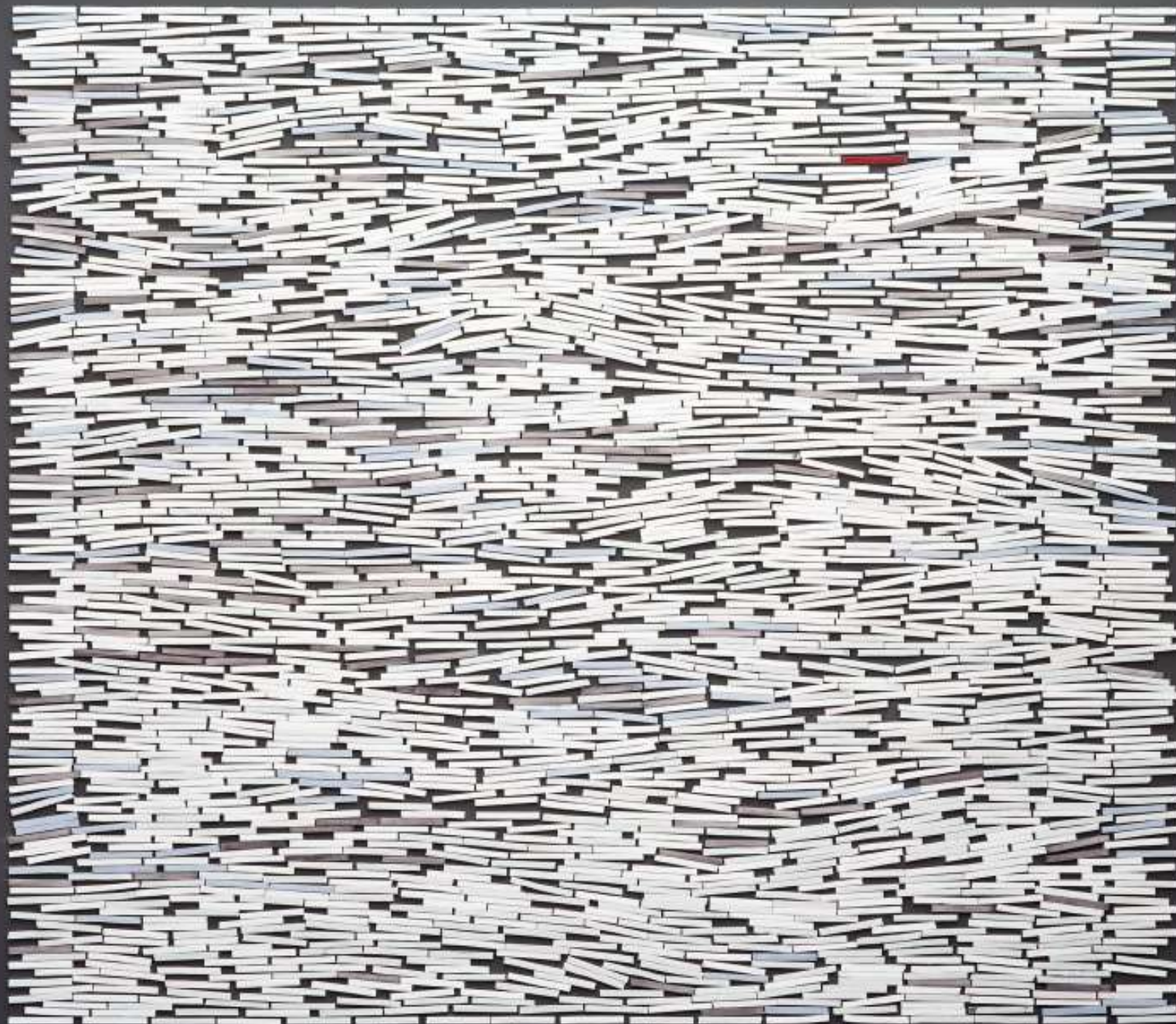
I'm a mother I make decisions the lives rejoin  
I'm a patient receiving care

rge

you can feel the sun  
you can hear the rain









**Southmead Hospital**  
Avanti Architects and Kate Blee



# EuHPN Fact files



Web resource showcasing best and most innovative projects.  
EuHPN is keen to increase our knowledge and coverage.

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