

Hospital Future Expansion

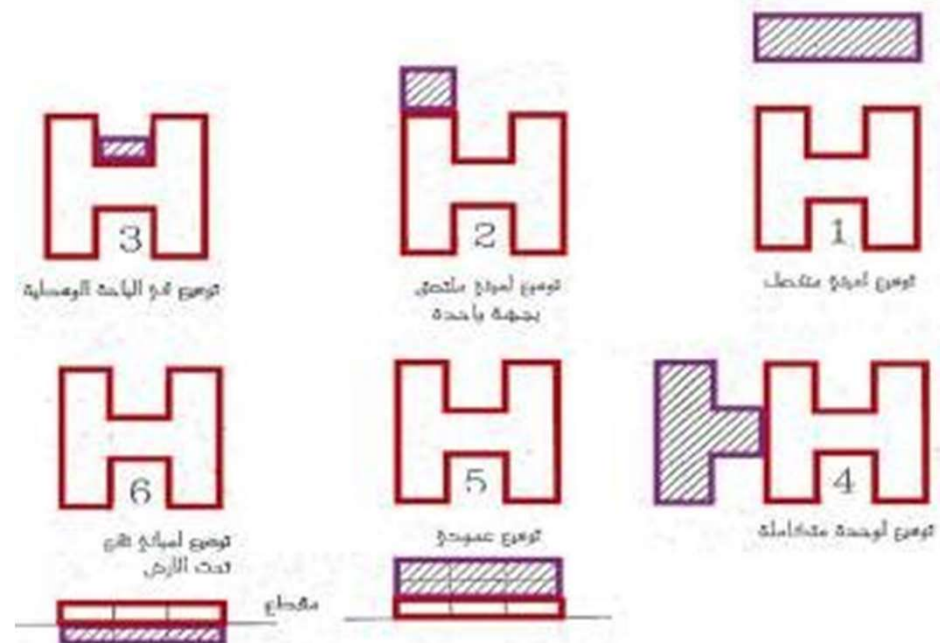
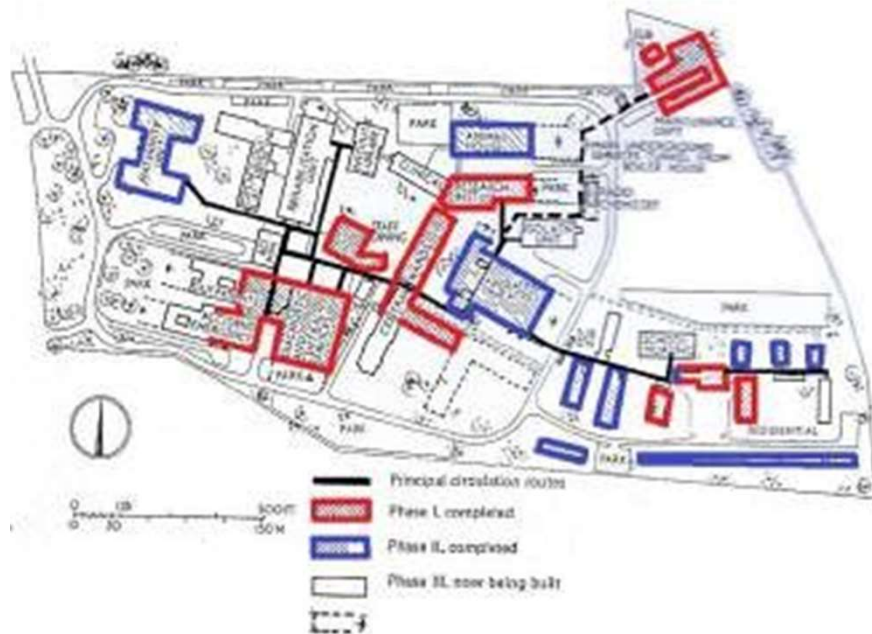
It takes 8-10 years for a hospital construction Project to move from initial planning discussions to commissioning.

Hospitals are often build in several phases or are added in stages to existing hospitals. Therefore, the design(circulation system, floor levels) and construction must be such as to allow a variety of expansion possibilities.



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General Comments

Planning Conception

Orientation: The most suitable orientation for treatment and operating rooms is between north-west and north-east.

For nursing ward facades, south to south-east is favorable:

The orientation of wards in hospitals with a short average stay is not so important.

Some specialist disciplines might require rooms on the north side so that patients are not subjected to direct sunlight.



Glassed connecting bridge to the existing buildings | Main entrance with pedestrian access to the new building | Building has patient rooms with balconies and large windows | Operating rooms with daylight

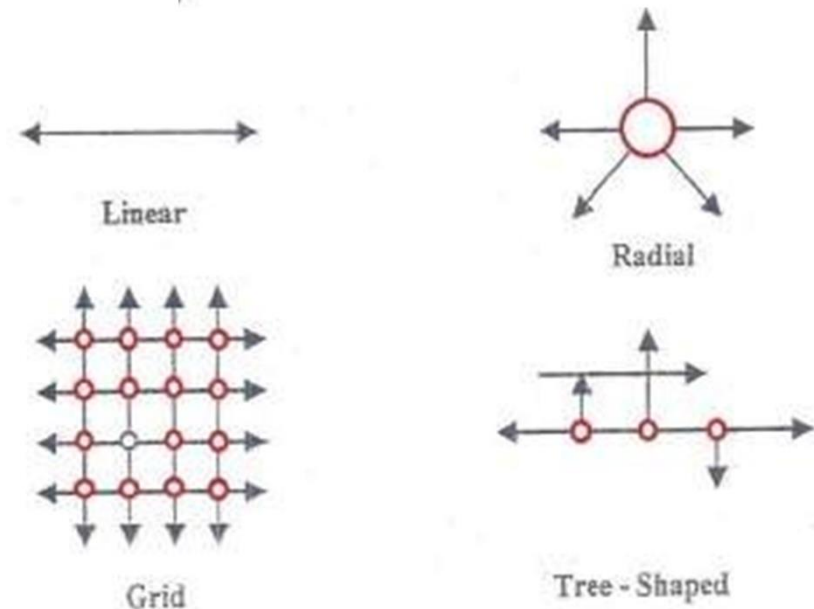
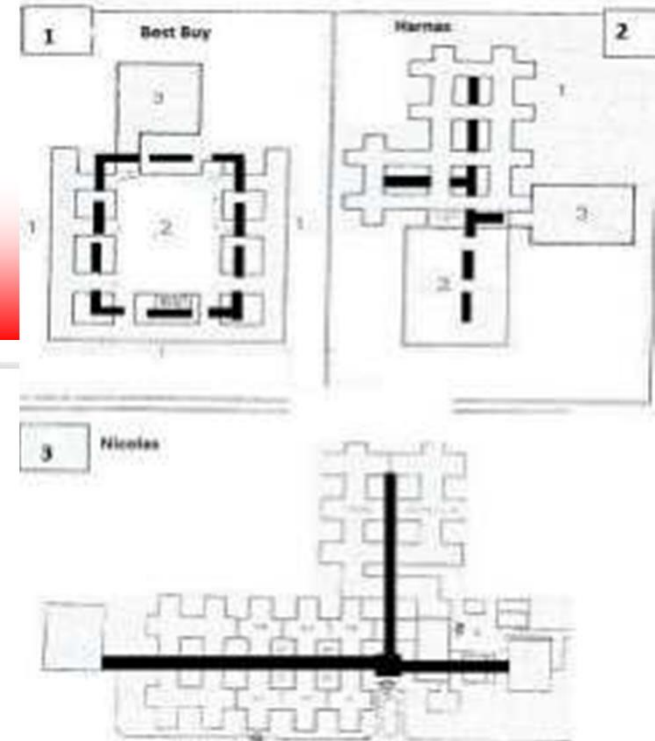
General Comments

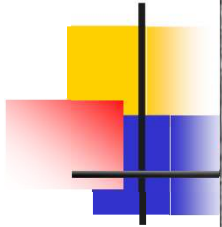
Planning Conception

The form of a building is strongly influenced by the choice of access and circulation routes. It is therefore necessary to decide early on whether to choose a spine form with branching sections (individual departments), or whether circulation will be radial outwards from a central core.

Consideration must be given to future expansion.

The vertical arrangement within a hospital should be designed so that the functional areas care, treatment, supply and disposal, access for bedridden patients, service yard, underground garage, stores, administration, medical services can be connected and accessed most efficiently.

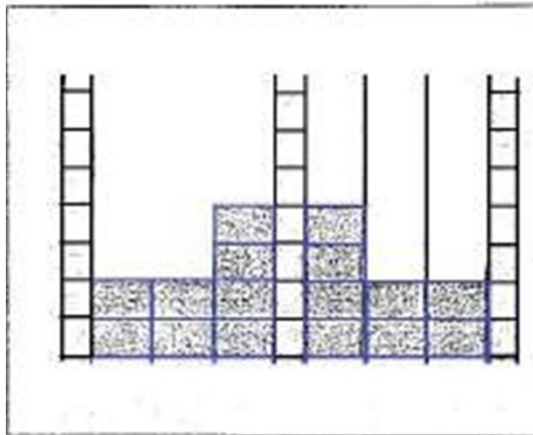




	240	360	480	600
240	5.76	8.64	11.52	14.40
360	8.64	12.96	17.28	21.60
480	11.52	17.28	23.04	28.80
600	14.40	21.60	28.80	36.00

Structural grid

The various operations centers can be planned most appropriately with a column grid spacing of 7.20m or 7.80m.

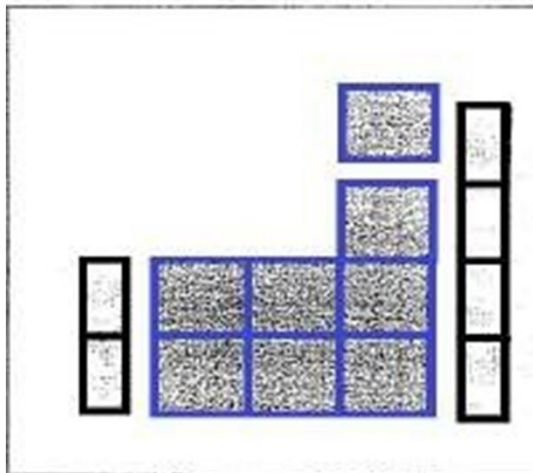


Dimensional Coordination

Modules: Modular dimensional coordination is the best starting point for meeting strategic design requirements.

For hospital construction the preferred module dimensions 12M= 1.20m are recommended, or 6M or 3M if the increments are too numerous.

In this system all the building components are coordinated with each other.



The supporting structure can be drawn in by producing a horizontal and vertical basic grid.

The benefits of dimensional coordination are shorter construction periods and easier replacement of interior fittings, with less disruption of service.

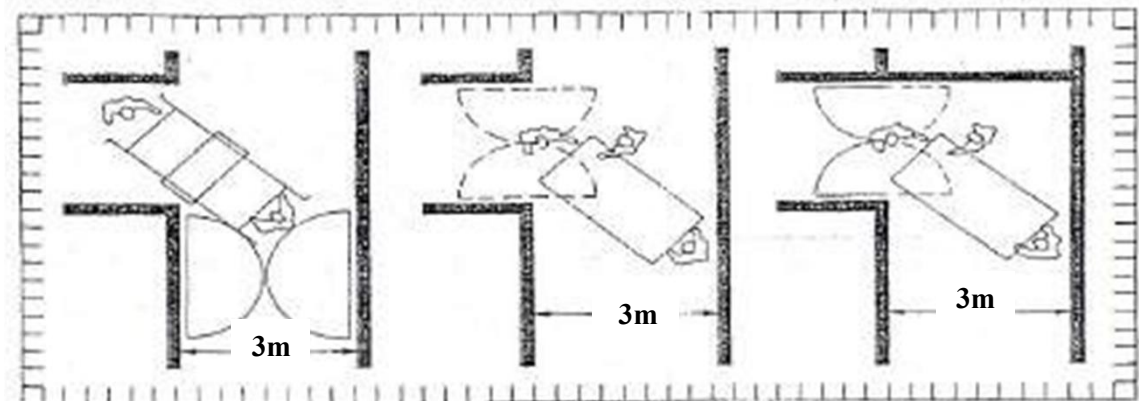
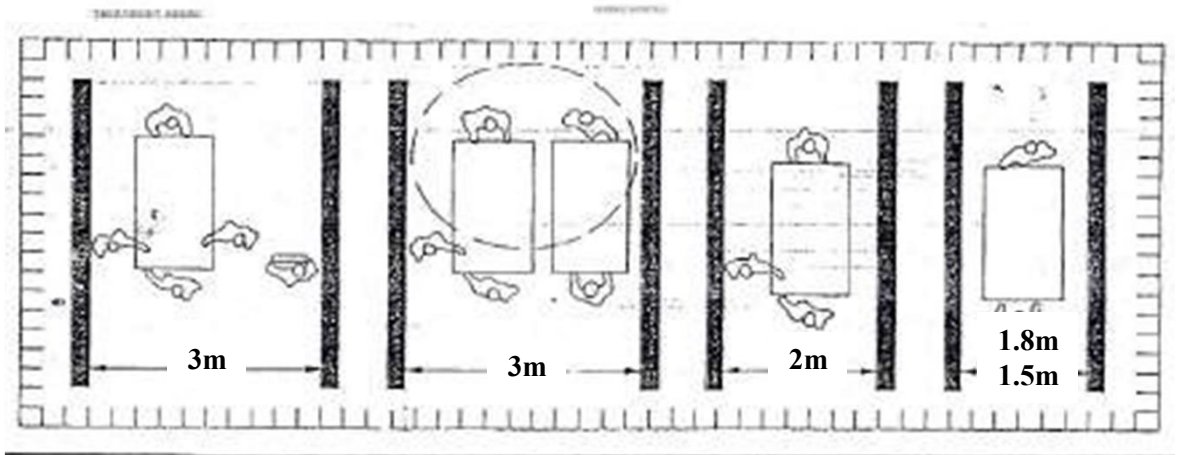
Corridors

Corridors

Corridors must be designed for the maximum expected circulation flow. Generally, access corridors must be at least 1.50m wide.

Corridors in which patients will be transported on trolleys should have a minimum effective width of 3.0 m.

The suspended ceiling in corridors may be installed up to 2.40 m.

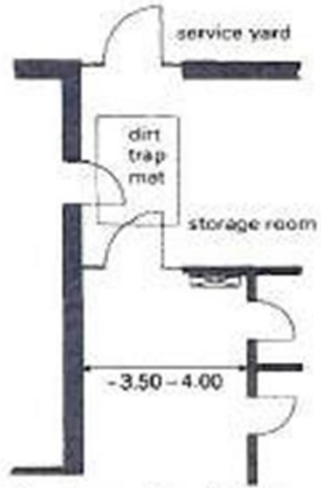


Los Arcos del Mar Menor University Hospital, Murcia, Spain. Casa Solo Arquitectos, 2011. Corridor in the operating department

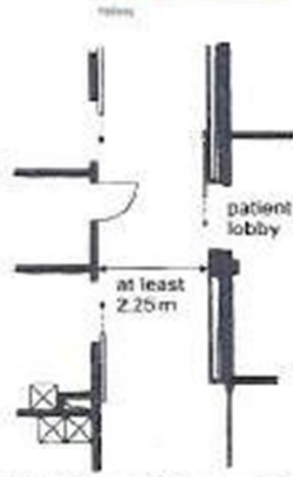
Corridors



Alberca (St. Vincent Hospital, Palo Alto, CA)
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http://www.architecturalrecord.com



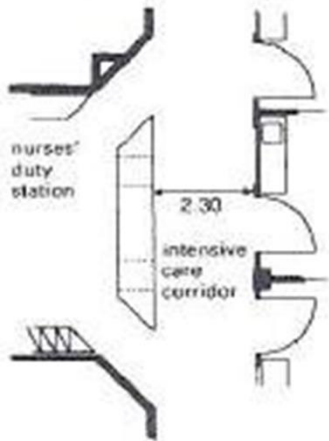
④ Service corridor, deliveries, storage areas



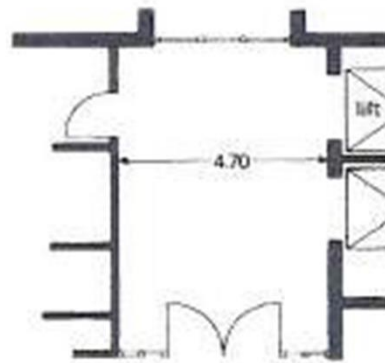
⑤ Working corridor, surgical area



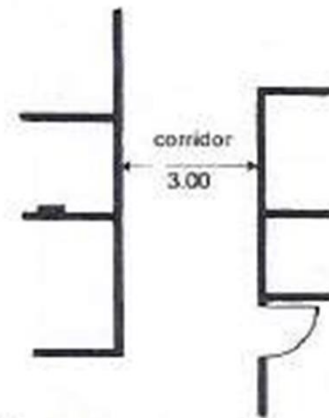
① Ward corridor/nursing area



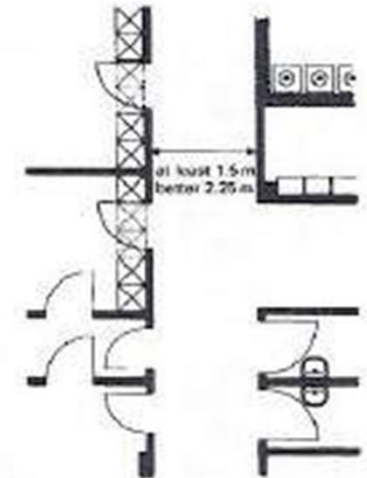
⑥ Ward corridor, intensive care



⑦ Lift lobby



② Main corridor (spine)



③ Medical services corridor



Cleveland Clinic
Abu Dhabi

Architect: Skidmore, OWing & Merrill LLP

Location: Abu Dhabi, UAE



Hôpital Riviera
Chablais

Architect: Skidmore, OWing & Merrill LLP

Location: Chablais, France

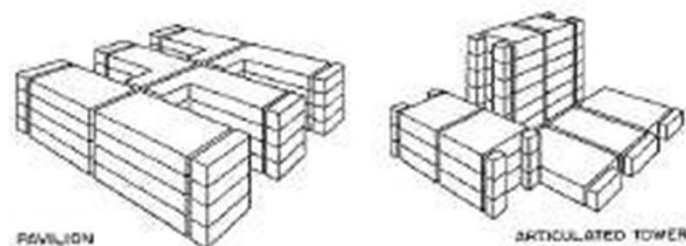
Program: Hospital



Center for Surgical
Medicine, University
Hospital Düsseldorf

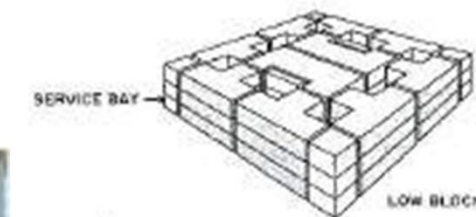
Architect: Skidmore, OWing & Merrill LLP

Architect	Skidmore, OWing & Merrill LLP
Client	University Hospital Düsseldorf
Program	Hospital
Year built	2014
Location	Düsseldorf, Germany



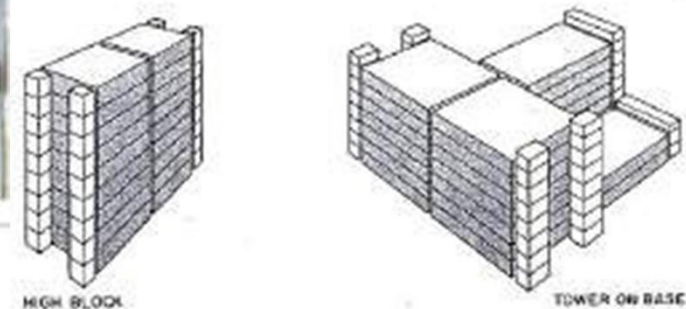
REVOLUTION

ARTICULATED TOWER



SERVICE BAY

LOW BLOCK



HIGH BLOCK

TOWER ON BASE



Estimote Kobbeij
Hospital

Architect: Skidmore, OWing & Merrill LLP

Architect	Skidmore, OWing & Merrill LLP
Client	Estimote Kobbeij Hospital
Program	Hospital
Year built	2014
Location	Kobbeij, Denmark



Cancer Centre
at Guy's

Architect: Skidmore, OWing & Merrill LLP

Location: London, UK