

KOKSTAD PRIVATE HOSPITAL

Kokstad, KwaZulu-Natal
(2002-2005)

A view of the building as you leave the parking on the west

B entrance corner of the building

C a detail view of one of the internal courtyards



A



B

This 40 bed hospital is located in the southern KwaZulu-Natal farming town of Kokstad which has in recent years become an administrative centre for the northern part of the Eastern Cape. At an altitude of 1300 metres the climate is severe - hot summers, cold winters with snow annually.

We were approached by a well-established general medical practice that was operating from a converted residential building in the main street of the town. Theirs was an interesting proposition - to design an efficient layout in an economical building that would allow them, and I quote ' to see more patients and through reduced overheads, charge them less!'

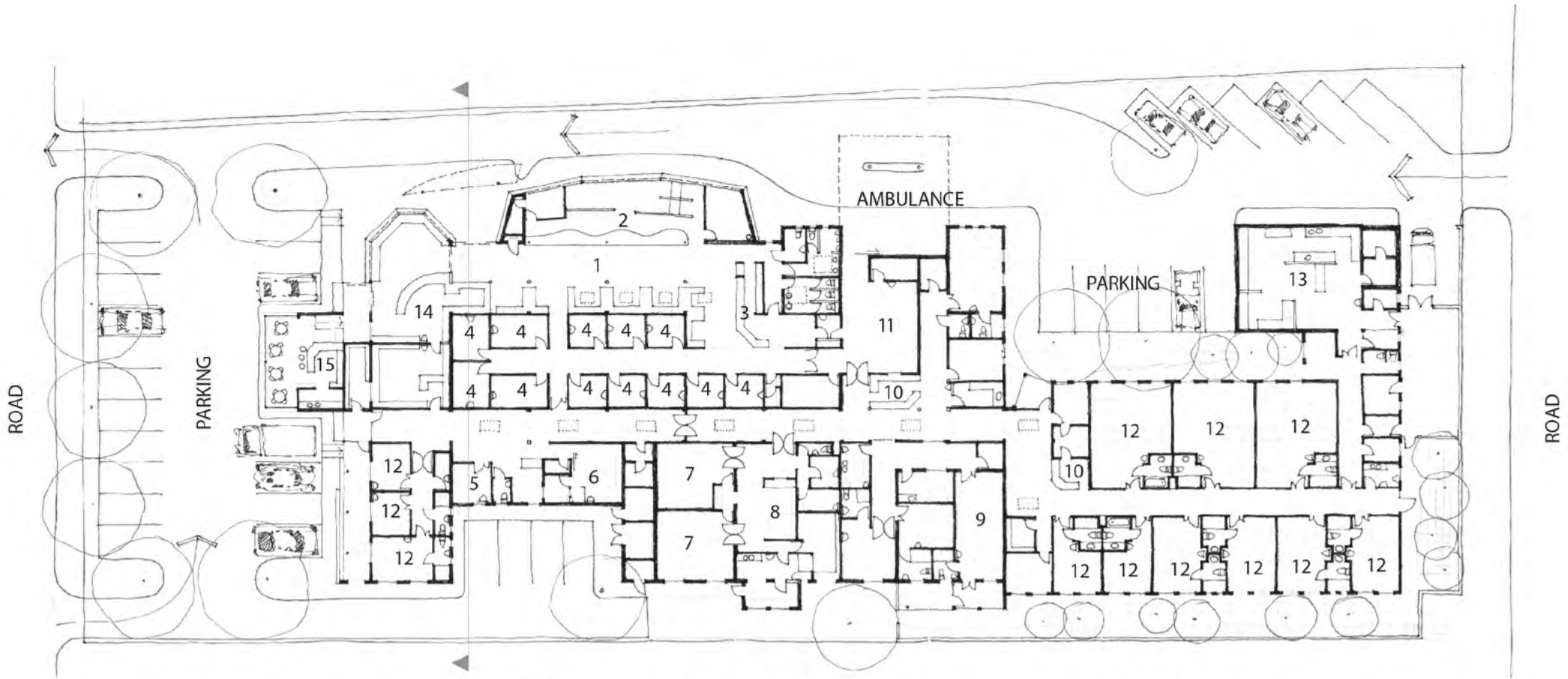


C

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PLAN 0 5 10 15m



- | | | | |
|---------------------|--------------|--------------------|----------------|
| 1 WAITING/RECEPTION | 5 ULTRASOUND | 9 MATERNITY | 13 KITCHEN |
| 2 ADMIN/RECORDS | 6 X RAY | 10 NURSES ST ATION | 14 PHARMACY |
| 3 PRE EXAM | 7 THEATRES | 11 CASUAL TY | 15 COFFEE SHOP |
| 4 EXAM ROOM | 8 RECOVERY | 12 WARDS | |

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A detail of the clerestory openings facing north east and south west as shown on the section below

B short section

C interior view of the clerestory and how the openings allow natural light into the space



A



C

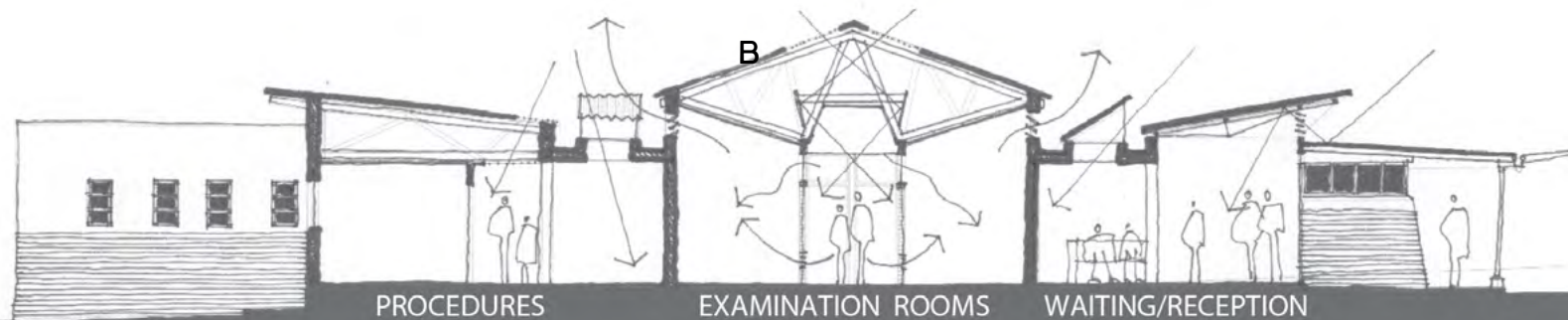
A long, narrow site (100 metres long x 40 metres wide) just off the main street through Kokstad and one-directional vehicular circulation through the site played an important role in determining the footprint of the building.

Central to the operation of the hospital and key to the efficiency that was required was the arrangement of the doctors' examination rooms. By grouping these around a central corridor, the four resident doctors are able to oversee 12 examination rooms. The logical flow of patients from reception/waiting, to screening (preexamination), to examination and, where necessary, to procedures, was also a factor that increased efficiency.

The planning of these spaces generated an almost square plan with consequent problems of interior spaces lacking access to natural light, ventilation and views.

Our response to this dilemma was to modulate the roofscape by forming 2 broad reinforced concrete valley gutters upon which the roofs would be staged, thus allowing natural light and ventilation through the clerestory windows. In addition, combinations of simple roof lights and clear roof sheeting allow direct and reflected natural light into passages and corridors. Doctors and operating theatre staff have commented on the benefits of having external views from every room in the hospital (except X-ray!).

The building uses locally sourced clay bricks, steel windows, metal roof sheeting and suggests reference to the rural shed vernacular through roof forms and side cladding of some of the building. A conservatory type coffee shop on the north-west entrance façade receives solar protection from a vertical garden of deciduous creepers.



SECTION

B

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- A corridors with light shelves
- B detail of the roof eaves along the side of the building
- C north west elevation



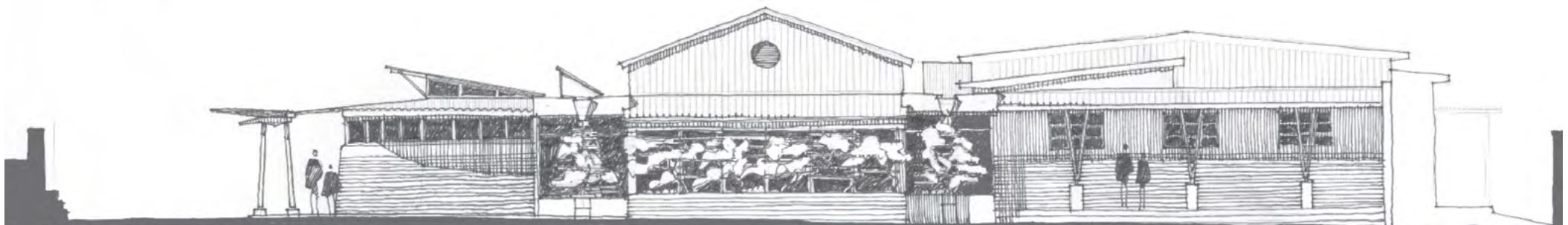
A

Conclusion:

From client feedback, it would appear that our strategies for natural light and ventilation have been successful in that the hospital reports that their electricity charges are lower than in their previous premises. No mean feat, given that the new facility is approximately 3 times the footprint! Furthermore the thermal insulation strategies and the attention to north-east sunlight provides comfortably warm spaces in the winter mornings. The success of the organisational diagram has ensured that the volume of patients treated has also increased substantially. In terms of economy this 37 bed hospital was developed at a total cost of R360,000 per bed. This rate includes the cost of the land and all medical equipment and compares favorably with comparable rates in the industry that, at the time, exceeded R600,000 per bed.



B



NW ELEVATION

C

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A panorama view looking north east

B waiting area

C coffee shop cladded with planting on the exterior as solar control

C planting on the exterior of the coffee shop



A



B



C



D