



Anadolu Health Centre

Gebze, Turkey



Architect: Has Architects Ltd & Rees Associates Inc

Client: Anadolu Health & Education Foundation

Built Area: 45'000 m²

Cost: US\$ 52'922'900

This health centre will eventually provide a full sweep of medical services, from a 209-bed hospital to a rehabilitation centre, nursing school and 150-room hotel for visiting relatives. The complex programme was elaborated by means of a 'brain-storming system' patented by the designers: the Facility Business Plan™ 'creates a detailed road map from where the clients are today and how they function to where they seek to be in the future'. The centre is located in a seismic zone, so the reinforced concrete and steel structure is designed to remain fully operational in the event of an earthquake.

Anadolu Health Centre

Anadolu Cad. No. 1 Cayirova Mevkii
Gebze, Turkey

<i>Architects</i>	Has Architects Ltd & Rees Associates Inc Istanbul, Turkey
<i>Clients</i>	Anadolu Health & Education Foundation Istanbul, Turkey
<i>Commission</i>	2000
<i>Design</i>	2000 - 2002
<i>Construction</i>	2002 - 2005
<i>Occupancy</i>	2005
<i>Site</i>	186'000 m ²
<i>Ground Floor</i>	9'000 m ²
<i>Total Floor</i>	45'000 m ²
<i>Costs</i>	US\$ 52'922'900

Programme This health centre will eventually provide a full sweep of medical services, from a 209-bed hospital to a rehabilitation centre, nursing school and 150-room hotel for visiting relatives. The complex programme was elaborated by means of a 'brain-storming system' patented by the designers: the Facility Business Plan (TM) 'creates a detailed road map from where the clients are today and how they function to where they seek to be in the future'. The centre is located in a seismic zone, so the reinforced concrete and steel structure is designed to remain fully operational in the event of an earthquake.

Anadolu Health Village, Gebze, Turkey



Architectural excellence together with operational efficiency is rare in health buildings. Anadolu Health Center project is successful in integrating design with operational efficiency.

REES / HAS

Kaya Aldoğan Sok. No.15 Zincirlikuyu-İstanbul-Turkey Tel : +90 212 272 28 30 <http://www.hasmimarlik.com.tr>



Public/private effort

- The site was provided by the government for a period of 49 years.
- The investment was realised by a non-profit institution founded by Anadolu Holding
- All firms belonging to Anadolu Holding agreed to donate a certain percentage of their yearly profits to this institution in order to finance welfare projects.



Aga Khan Award for Architecture

ARCHITECT'S RECORD

2007 AWARD CYCLE

I. IDENTIFICATION

Project Title ANADOLU HEALTH CENTER
 Street Address ANADOLU CAD. NO. 1 CAYIROVA MEVKII
 City GEBZE Country TURKIYE

II. PERSONS RESPONSIBLE

A. Architect/Planner

Name REES/HAS (REES ASSOCIATES INC.) + HAS ARCHITECTS LTD.
 Mailing Address KAYA ALDOGAN SOK. NO. 15 ZINCIRLIKUYU
 City ISTANBUL Postal Code 34394
 Country TURKIYE Telephone + 90.212.2722830
 Facsimile + 90.212.2113420 E-mail ayse.erkтин@hasmimarlik.com.tr
 Principal Designer REES/HAS

B. Client

Name ANADOLU HEALTH AND EDUCATION FOUNDATION
 Mailing Address UMUT SOK. NO. 12 ICERENKOY
 City ISTANBUL Postal Code _____
 Country TURKIYE Telephone + 90.216 5743176
 Facsimile + 90.216 573 7452 E-mail _____

C. Project Affiliates / Consultants

Please list those involved in the project and indicate their roles and areas of responsibility (e.g. engineers, contractors, economists, master craftsmen, other architects, clients, etc.) Please cite addresses and telephone numbers separately.

Name	Role
<u>ATTACHED 1</u>	

III. TIMETABLE

(please specify year and month)

A Commission 04. 2000

B Design Commencement APRIL 2000 Completion APRIL 2002

C Construction Commencement MAY 2002 Completion JANUARY 2005

D Occupancy FEBRUARY 2005

Remarks, if any:

IV. AREAS AND SURFACES

(please indicate in square metres)

A Total Site Area 186.000 sqm

B Ground Floor Area 9.000 sqm

C Total Combined Floor Area 45.000 sqm
including basement(s), ground floor(s) and all upper floors)

Remarks, if any:

V. ECONOMICS

(please specify the amounts in local currencies and provide the equivalents in US dollars. Specify the dates and the rates of exchange in US dollars at the time.)

	Amount in Local Currency	Amount in US dollars	Exchange Rate	Date
	YTL		1.42	2002 - 04 AVERAGE
A Total Initial Budget	<u>63.190.000</u>	<u>44.500.000</u>		
B Cost of Land	<u>THE SITE WAS PROVIDED BY THE GOVERNMENT FOR A PERIOD OF 49 YEARS</u>			
C Analysis of Actual Costs				
1 Infrastructure	<u>38.609.000</u>	<u>26.444.500</u>	<u>1.46</u>	
2 Labour	<u>12.690.000</u>	<u>8.692.000</u>	<u>1.46</u>	
3 Materials	<u>5.876.000</u>	<u>4.109.000</u>	<u>1.43</u>	
4 Landscaping	<u>712.500</u>	<u>498.000</u>	<u>1.43</u>	
5 Professional Fees	<u>4.803.000</u>	<u>3.969.000</u>	<u>1.21</u>	
6 Other	<u>12.618.000</u>	<u>9.210.400</u>	<u>1.37</u>	
D Total Actual Costs (without land)	<u>75.308.500</u>	<u>52.922.900</u>	<u>1.42</u>	
E Actual Cost (per sq meter)	<u>1.679</u>	<u>1.180</u>		

Remarks, if any, on costs:

VI. PROJECT DESCRIPTION

ATTACHED 2

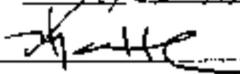
VII. MATERIALS, STRUCTURE, AND CONSTRUCTION

ATTACHED 3

VIII. PROJECT SIGNIFICANCE AND IMPACT

ATTACHED 4

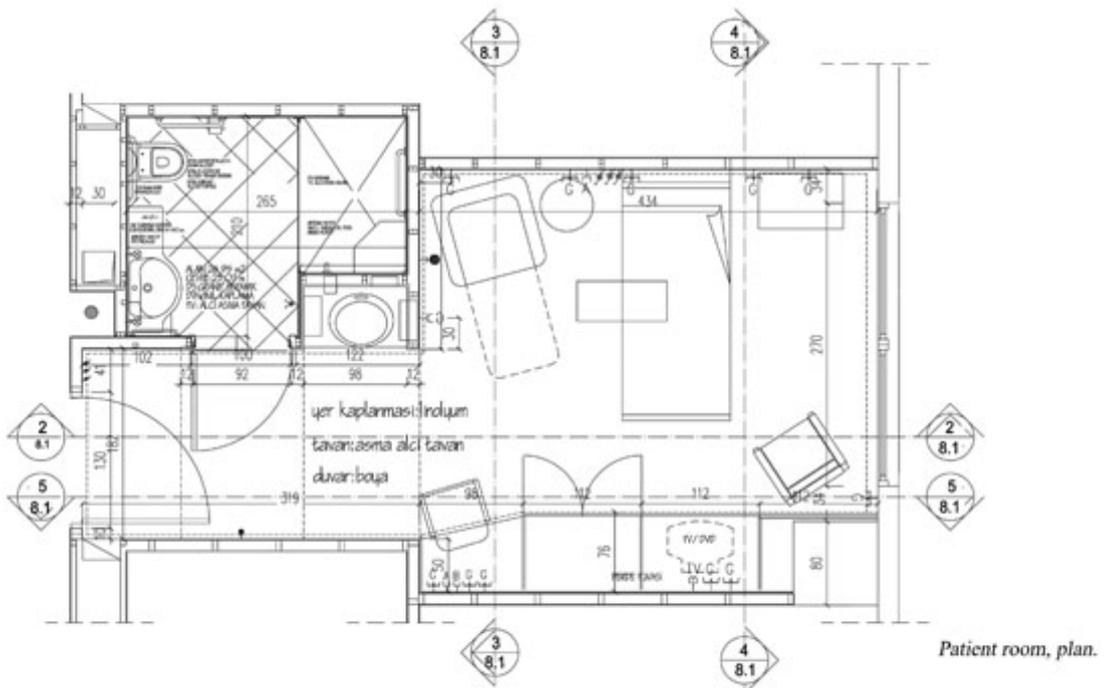
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Name (please print) AYSE HASOL ERKINSignature Date 26.10.2006

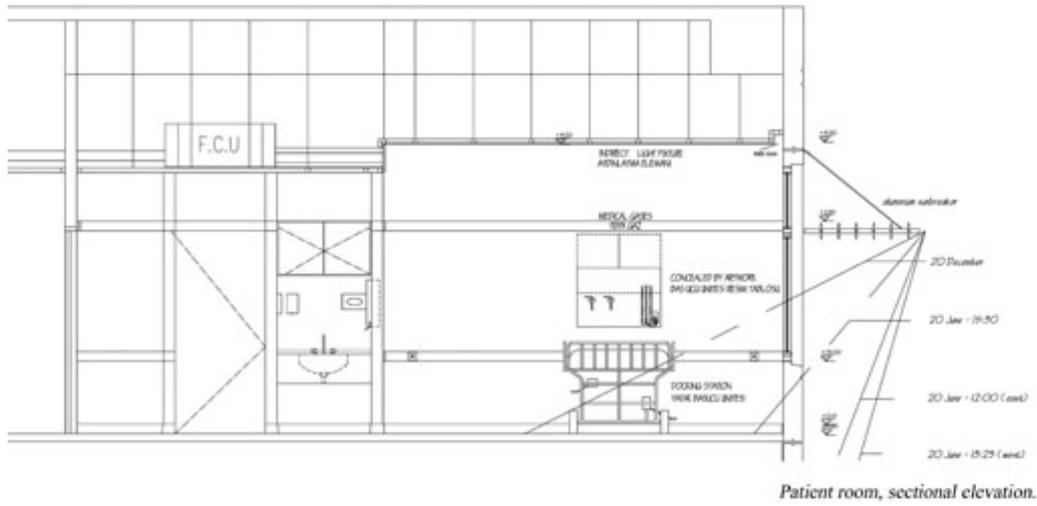
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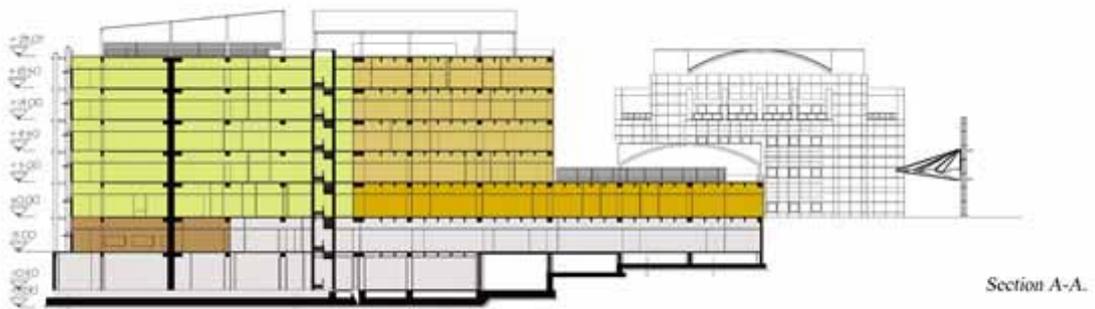


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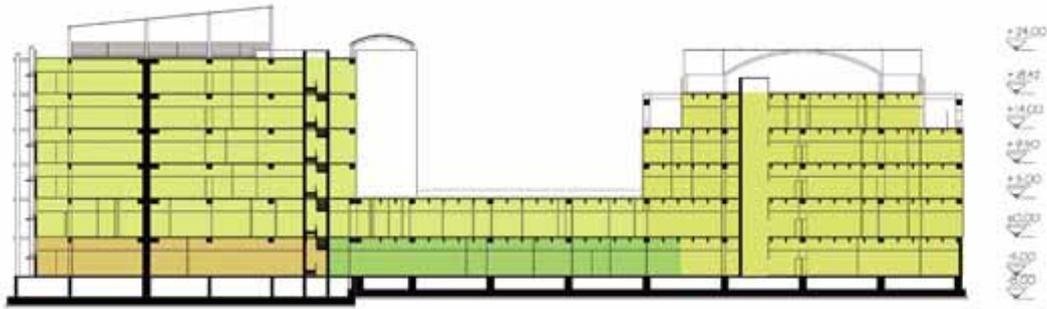
Patient room, sectional elevation.

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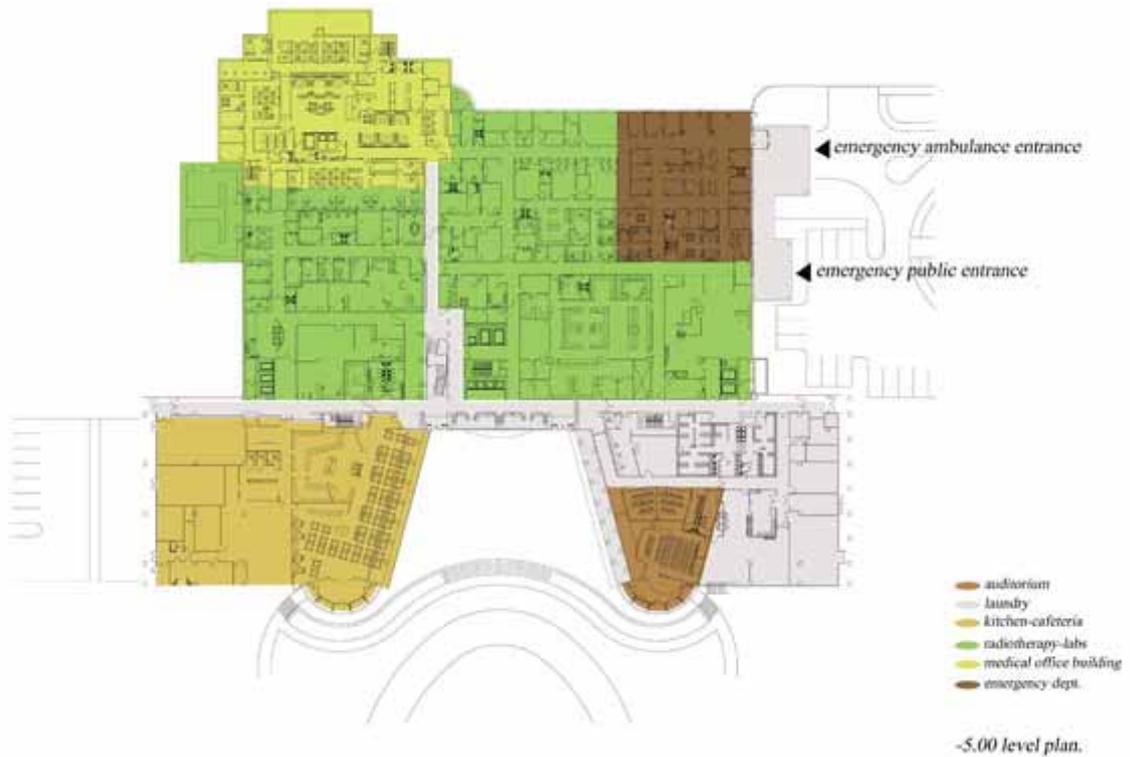
Section A-A.

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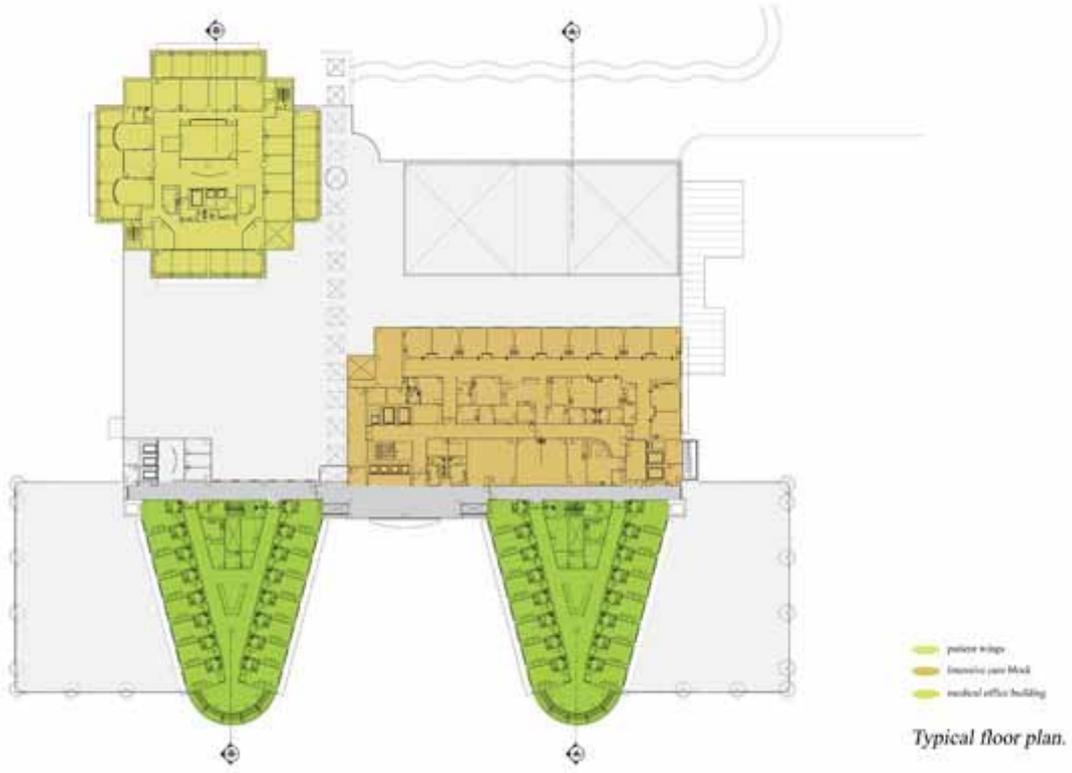


Section B-B.

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S329201_P03312



S329203_P03312



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S329207_P03312



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MATERIALS IDENTIFICATION FORM

Provide a full list of all material being submitted

No	Description	Remarks
1	ATTACHED 1	
2	ATTACHED 2	
3	ATTACHED 3	
4	ATTACHED 4	
5	ATTACHED 5 PRESENTATION	
6	PUBLICATION IN MAGAZINES	
7	CD	
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ATTACHMENT 1

ANADOLU HEALTH CENTER Project Team

Anadolu Health and Education Foundation
Client

REES/HAS

- Rees Associates, Inc.
- Has Mimarlık Ltd.
Architectural Design

- REES/HAS
- Kreatif Mimarlık Ltd.
Interior Design

Consultants :

Arup Mühendislik ve Müşavirlik Ltd.
Structural Design

Gürdal Mühendislik ve Müşavirlik Hizmetleri A.Ş.
Mechanical Design

Enmar Mühendislik Müşavirlik Elektrik Sanayi Taahhüt ve Tic. Ltd.
Electrical Design

Tekfen Mühendislik A.Ş.
Civil Engineering Design

Dr. Oktay Çini
Client's Medical Consultant

DS Mimarlık, Peyzaj Mimarlığı, Restorasyon San. Ltd.
Landscape Design

Prof. Dr. Abdurahman Kılıç
Life Safety Consultant

Şanal Mimarlık (Architecture and Consulting)
Client's Design Managment Consultant

Siemens Simko Tic. Ve San. A.Ş.
Medical Equipment Consultant

Nasetti Tıbbi Cihazlar San. ve Tic. Ltd.
Medical Gas Consultant

Arba Danışmanlık İç ve Dış Tic. Ltd.
Security Consultant

İstanbul Makpa Endüstriyel Mutfak Ekipmanları San. ve Tic. A.Ş.
Food Service and Laundry Consultant

**Yenal Oktuğ-CWG Giydirme Cephe ve Doğramalar Sistem Mühendisliği
Danışmanlığı**
Facade Consultant

Yönetim Teknik Araştırma ve Uygulama Hizmetleri Ltd.
Project Manager

PROJECT DESCRIPTION

The first phase of the Health Village project which is located on a 186 000 sqm site situated just outside Istanbul at Gebze-Çayırova, near the sea of Marmara, was completed with the opening ceremony of the Hospital Building and the Medical Office Building on February 12, 2005

The aim of this project is to provide high-standard health services. The project encompasses a wide spectrum of health services from preventive medicine to a 209 bed hospital within a construction area of 45 000 sqm, a rehabilitation center, a nursing home, as well as a hospice. Also included in the project are a 240-student nursing education school, a 360-student allied health education school, a student dormitory, a 150 room hotel to serve the relatives of patients and residential units for nurses. A green area in the middle of the site enriched with water elements, serves to connect the three zones of the master plan:

- medical,
- residential,
- educational

All buildings are situated so that they have an unobstructed view of the sea

Starting the planning process from scratch had many advantages. The multifunctional complex program of this project was elaborated by means of a brain storming system known as "Facility Business Plan®" patented by REES Associates, Inc. The Facility Business Plan® creates a detailed road map from where the clients are today and how they function to where they seek to be in the future, facilitating the design of complex buildings

With the help of specialists in the healthcare sector and healthcare planners at the brainstorming sessions, the project has been programmed for operational efficiency and optimum departmental coordination. Also, the circulation of patients-visitors-employees was separated to provide privacy for patients, which is especially important for the oncology patients

Uninterrupted Service After a Major Earthquake

As the site is in a seismic zone, special measures were taken with the structure, so that the facilities will stay fully functional in case of an earthquake emergency. The foundations are 7 m below natural ground level. The calculations for the 10x10 m reinforced concrete columns produced functionality in spaces, and waffle slabs aimed to minimize vibration levels in the operation rooms

AIA Guidelines for Hospital and Healthcare Facilities and NFPA Regulations were followed in the planning of the facility, which is an affiliate of the Johns Hopkins Medical Center

Coordinated Planning Reduced Construction Time

REES and HAS Architecture worked on the complex program of the health center with the contribution of a number of international consultants varying from medical equipment consultants to seismic consultants. Thus, for the first time in Turkey, a health center was planned down to the smallest detail in every aspect before groundbreaking. The construction was completed within two years with the help of the detailed planning work that REES Associates Inc. and HAS Mimarlık Ltd. have provided

ATTACHMENT 3

MATERIALS, STRUCTURE AND CONSTRUCTION

Structure : Reinforced concrete + steelwork (partly)

Uninterrupted Service After a Major Earthquake

- As the site is in a seismic zone, special measures were taken with the structure, so that the facilities will stay fully functional in the case of earthquake emergency
- The foundations are 7 m below natural ground level
- The calculations for the 10x10 m span reinforced concrete columns produced functionality in spaces, and waffle slabs aimed at minimum vibration levels in the operation rooms
- AIA Guidelines for Hospital and Healthcare Facilities and NFPA Regulations were followed in the planning of the facility

Façade :
 - Fibre reinforced concrete elements + heat insulation
 - Aluminium window frames + double glazing
 - Aluminium solar control elements for patient rooms

Floor coverings :
 - Natural rubber for patient rooms, halls and corridors
 - Ceramic tiles for bathrooms

Walls :
 - Acoustic gypsumboard partitions

Other :
 - Pneumatic Tube System
 - Medical Gas System
 - Nurse Call System
 - Sliding glass doors for emergency and intensive care units
 - Acoustic suspended ceilings
 - Protective steel sheet detailing for radiology units
 - Hygienic design details for operating theaters and special rooms

PROJECT SIGNIFICANCE AND IMPACT

1) public/private effort

- The site was provided by the government for a period 49 years
- The investment was realised by the private sector. All firms belonging to Anadolu Holding agreed to donate a certain percentage of their yearly profits to this project

Moreover,

- To generate public awareness and consent, all members of the Gebze Municipal Council were informed, consulted and their approvals or criticisms were evaluated
- An informative meeting was held with all political parties of the region
- A primary school was donated to the region by the investors to contribute to the education of the vicinity

2) resourceful use of land;

- For the first time in Turkey, all health services are integrated including preventive medicine
- The site was provided by the government for this purpose
- Brought economic growth to an area struck by the 1999 earthquake

3) preservation or enhancement of environmental resources;

- Close to the new Sabiha Gökçen airport
- On the main highways TEM ve E5 that connect Anatolia to Europe. There used to be no roads to the site. New roads connecting the site to the main arteries were constructed
- Respects the nature; health village planned as a holiday resort

4) filling of a special societal or market need;

- Located in the main industrial area of Turkey; at a location where industrial accidents are frequent
- Very close to the main interstate arteries of Turkey; at a point where traffic accidents are recurrent
- 10 % of patients are taken care of without payment
- Conferences for physicians working in small towns at the vicinity of the hospital
- Health examinations at schools in the vicinity

uninterrupted service after a major earthquake

- The hospital is situated in a seismic zone. It has to continue services during and after a major earthquake. Extraordinary design precautions were taken to provide this
- At the epicenter of 1999 earthquake; will serve the area where a lot of injuries may take place after a probable earthquake

ATTACHMENT 4

5) entrepreneurship or creative development, team organisation, and management;

- International quality standards
- Priority placed on "wellness and preventive medicine" for healthy living
- Reverse brain migration- (Turkish physicians that have been working in developed countries are returning to Turkey to work in this hospital)
- Patients from Anatolia prefer this hospital because it is on the crossroads
The hospital not only serves Istanbul, but the whole of Turkey
- The project brought the idea of "Hospice" to Turkey
- Hospital within hospital: Center of Excellence for Oncology

6) demonstrated economic success;

- USD 80 million of direct investment provided by a non-profit foundation
- Results of patient evaluation questionnaires: 99% of outpatients and 98% of inpatients told that they would re-visit the hospital in case of a future health problem

ATTACHMENT 5

PRESENTATION

- 1 VIEW OF THE EMERGENCY ENTRANCE
- 2 MASTER PLAN
- 3 VIEW OF THE FACADE
- 4 STAIRS LEADING FROM CONCOURSE TO THE CAFETERIA
- 5 CONCOURSE
- 6 VIP SUITES
- 7 INTENSIVE CARE WING
- 8 PATIENT ROOM, PATIENT ROOM PLAN
- 9 SATELLITE NURSING COUNTERS JUST IN FRONT OF THE INTENSIVE CARE ROOMS ENABLE THE PATIENTS IN THIS SECTION TO BE UNDER OBSERVATION 24 HOURS A DAY
- 10 INTENSIVE CARE NURSE UNIT
- 11 INTENSIVE CARE ROOMS
- 12 INTENSIVE CARE WING
- 13 RENDERING
- 14 AERIAL VIEW OF THE PATIENTS' WINGS FROM THE SEA REAR LEFT IS THE MEDICAL OFFICE BUILDING
- 15 SECTION A-A
- 16 SECTION B-B
- 17 -5.00 LEVEL PLAN
- 18 TYPICAL FLOOR PLAN
- 19 GROUND FLOOR PLAN
- 20 NIGHT VIEW OF PATIENT WINGS

Photographers :

Serdar Samli

Hasan Deniz (only Slide 20)