



Dorsch Gruppe

Selected Relevant Key Projects - Hospitals

Company Experience

Outline on Hospital Consultancy Services

Dorsch Gruppe's first engagement in hospital consultancy dates back to the year 1958, when the company performed the design and construction supervision of the first large hospital in Kuwait, the Al Sabah Hospital.

During the last fifteen to twenty years Dorsch has performed architect-engineer work for well over a dozen hospitals with various functions in Germany, the Commonwealth of Independent States/CIS, Jordan and Turkey - applying the most advanced international standards and requirements.

The Dorsch Gruppe is familiar with all aspects of hospital consultancy services - from initial studies to implementation - including the following individual tasks:

Company Experience

Outline on Hospital Consultancy Services

1. Study and Planning Phase

- Studies Pertaining to Existing Facilities
- Masterplan and Space Requirement Studies
- Programming of Departments and Management Systems, including Medical Equipment
- Facility Planning
- Incorporation of Hospital Equipment
- Detail Planning

Company Experience

Outline on Hospital Consultancy Services

2. Tender Phase

- Tender Preparation
- Tender Evaluation

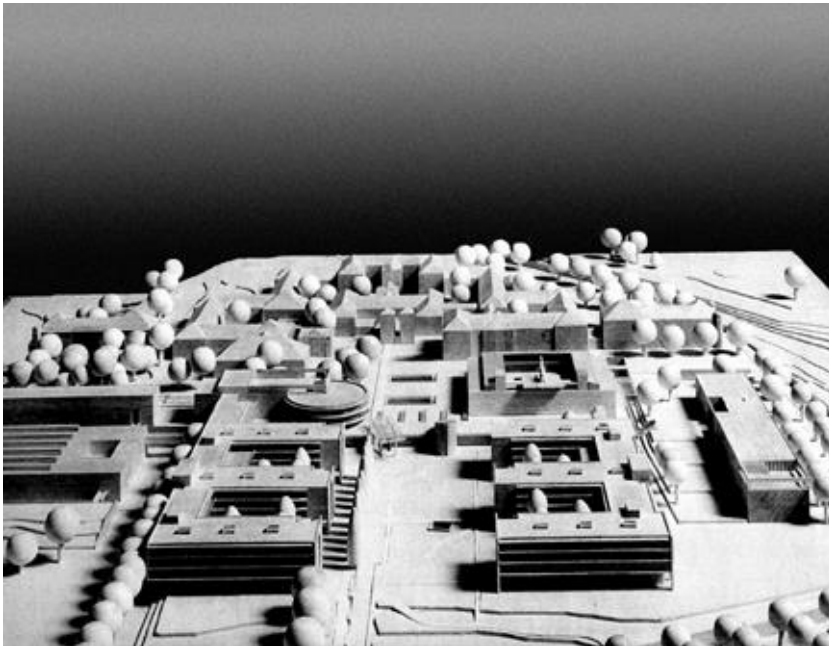
3. Implementation Phase

- Award of Contract
- Supervision of Construction

Selected Relevant Key Projects - Hospitals

Selected Relevant Key Projects

Wagner-Jauregg State Psychiatric Hospital in Linz, Austria



Client: State Government of
Upper Austria, Linz

Location: Linz, Austria

Constr. Cost: € 215 million

Area: 309,300 m²

Project Period: 1995 - 2003

Project Services:

- Planning
- Construction supervision
in respect of sanitary installation
- Heating, ventilation, electrical engineering and
conveying systems.

Selected Relevant Key Projects

Marienstift Specialist Hospital in Schwarzenberg, Germany



Client: EKH, Erzgebirgische
Krankenhaus- und
Hospitalgesellschaft mbH

Location: Saxony, Germany

Constr. Cost: € 15 million

Area: 6,200 m²

Project Period: 1992 - 2000

Project Services:

- Preparatory measures
- Design and supervision
 - Buildings
 - Extern facilities
 - Equipment
 - Architectural acoustics.

Selected Relevant Key Projects

Kirchberg District Hospital, Saxony, Germany



Client: Zwickau Rural District Council,
Saxony

Location: Kirchberg, Germany

Constr. Cost: € 45.2 million

Project Period: 1991 - 1999

Project Services:

- Preparatory measures
- Design
- Construction supervision
- Defects liability period.

Selected Relevant Key Projects

Neurological Rehabilitation Centre in Bennewitz, Germany



Client: Bilfinger + Berger AG
Location: Bennewitz, Germany
Constr. Cost: € 2.8 million
Project Period: 1996 - 1997

Project Services:

- Determination of basic data
- Assistance in award of contract.

Selected Relevant Key Projects

Leipzig University - Clinic for Internal Medicine, Germany



Client: Leipzig State Building Authority

Location: Leipzig, Germany

Constr. Cost: € 7.4 million

Project Period: 1996

Project Services:

- Design
- Preparation of main design documents
- Preparation of detailed design
- Preparation of tender documents and Assistance in award of contract for Constructions works
- Cost control
- Co-ordination of all parties involved in project.

Selected Relevant Key Projects

Charité University Hospital of Berlin, Humboldt University, Germany



Client: State of Berlin
Senate Administration
for Building and Housing

Location: Central Berlin, Germany

Constr. Cost: € 28 million

Area: 20,000 m²

Project Period: 1991 - 1995

Project Services:

- Project management
 - Project organisation
 - Coordination of professional services
 - Cost scheduling, time scheduling
- Design services
 - Building and mechanical-electrical equipment.

Selected Relevant Key Projects

Extension of King Khalid Hospital in Al Kharj, Saudi-Arabia



Client: AL ZAID,
Engineering Consultants

Location: Al Khalid,
Saudi-Arabia

Project Cost: 15,0 Mio. €

Gross Volume: 24.750 m³

New Building: accident and emergency
department, dialysis and
gynecology

Project Period:

- Building design: 2000 - 2001

Project Services:

- Preliminary design
- Concept design

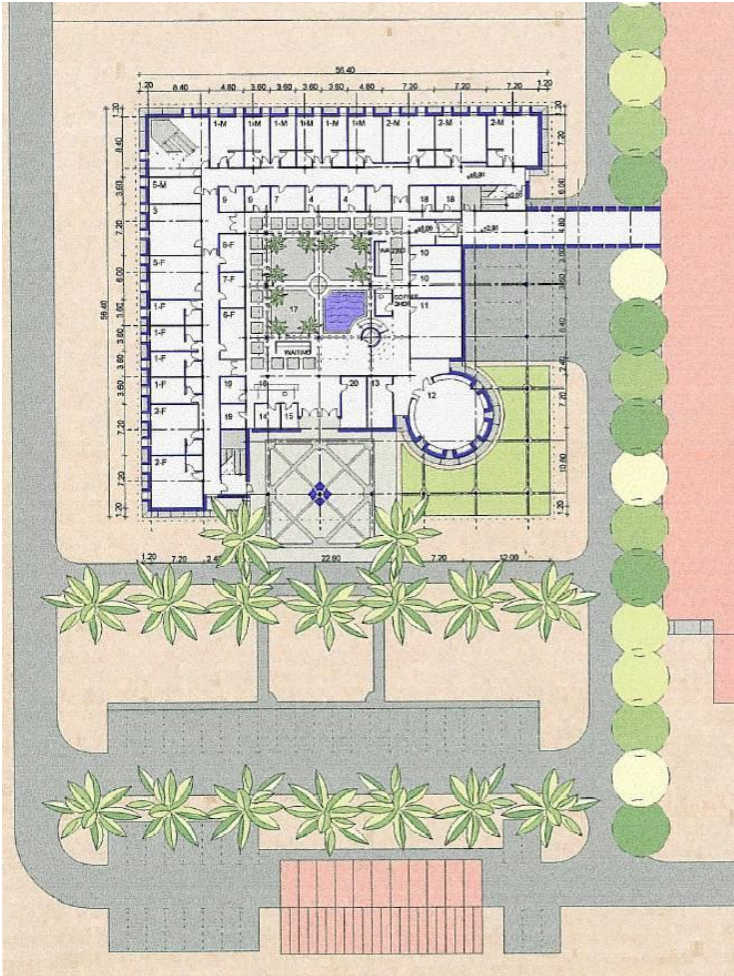
Selected Relevant Key Projects

Extension of Prince Sultan Kidney Center in Najran, Saudi-Arabia



- Client: AL ZAID,
Engineering Consultants
- Location: Najran,
Saudi-Arabia
- Project Cost: 13,0 Mio. €
- Gross Volume: 19.975 m³
- Space Program: Dialysis department,
hospital ward for individuals
on long-term disability and
radiology
- Project Period:
- Building design: 1999 - 2000
- Project Services:
- Preliminary design
 - Concept design.

Selected Relevant Key Projects



Selected Relevant Key Projects

Extension of King Khalid Hospital, Saudi Arabia



Client: Health Department
Location: Al Kharj, Saudi Arabia
Constr. Cost: € 10 million
Area: 6,200 m²
Project Period: 1999

Project Services:

- Survey of existing facility
- Study
- Basic research
- Concept design
- Room and space programme.

Selected Relevant Key Projects

Radiology Department of King Hussein Hospital, Jordan



Client: Directorate of Royal
Medical Services

Location: Amman, Jordan

Constr. Cost: € 10 million

Area: 6,200 m²

Project Period: 1987 - 1989

Project Services:

- Construction works
- Medical equipment
- Coordination activities.

Selected Relevant Key Projects

Hospitals and Infrastructure for Earthquake Recovery Project (TERRA1) Adapazari, Düzce & Gölcük, Turkey



Client: Prime Ministry,
Project Implementation
Unit (PIU), Turkey

Location: Adapazari, Düzce &
Gölcük, Turkey

Financing: EIB

Investment Costs: US\$ 55 million

Units: 1,000 in Adapazari,
500 in Düzce & 1,000 in
Gölcük

Project Period: 2002 - 2004

Project Services:

- Checking design, technical specifications and bills of quantities
- Time, cost and quality control
- Facility management & documentation
- Construction supervision

Selected Relevant Key Projects

Hospitals and Infrastructure for Earthquake Recovery Project (MEER) in Izmit, Körfez & Gebze, Turkey



Client: Prime Ministry, Project Implementation Unit (PIU), Rep. of Turkey

Ort: Izmit, Körfez & Gebze, Turkey

Financing: IBRD

Constr. Cost: € 107.5 million

Apartment Units: 3,000 in Izmit, 1,000 in Körfez & 500 in Gebze

Project Period: 2000 - 2001

Project Services:

- Checking design, technical specifications and bills of quantities
- Time, cost & quality control, controlling
- Facility management & documentation
- Construction supervision.

Selected Relevant Key Projects

Hospitals and Infrastructure for Earthquake Recovery Project (TEFER) in Adana & Ceyhan, Turkey



Client: Housing Development Administration, Ankara IBRD, Washington

Constr. Cost: € 96 million (estimate)

Location: Adana & Ceyhan, Turkey

Apartment Units: 2,300 in Adana,
1,000 in Ceyhan

Project Period: 1998 - 1999

Project Services:

- Checking design, technical specifications and bills of quantities
- Time, cost & quality control
- Facility management & documentation
- Construction supervision of raw construction work & finishing, building services & infrastructure measures

Selected Relevant Key Projects

Hospitals and Infrastructure for CIS Housing Programme



Client: Russian Ministry of Defence
Constr. Cost: € 4.27 billion
Location: 43 locations in Russia, Belarus & Ukraine
Apartment Units: 45,500 incl. infrastructure
Total Area: 2,770,000 m²
Project Period: 1990 - 1998

Project Services:

- Project management
- Construction supervision
- Local site supervision
- Organisation of international bidding
- Advisory services
- Documentation.

Selected Relevant Key Projects

Housing Programme – Polyclinics, White Russia, Ukraine and Russia



Polyclinic in Wladkavkas



Polyclinic in Sernograd



Polyclinic in Lida



Treatment Room



Dental Treatment



Pharmacy

Selected Relevant Key Projects – U.S. Hospitals

Reference Project Building Construction

Renovation and Extension of Building 3769, Landstuhl Hospital, Germany

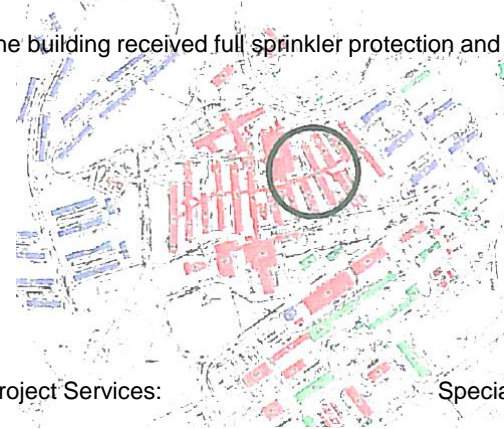


The project comprises renovation and expansion of Wing 3769 of the Landstuhl Hospital. The building complex consists of an addition with partial basement with a new 2-storey building.

The building accommodates an eye clinic with treatment rooms, waiting and reception area.

In order to provide the state of the art of medical care in this building complex, it was necessary to demolish large parts of the existing building to the rough structure and replace the technical building systems.

The building received full sprinkler protection and partial air conditioning.



Client:	Staatsbauamt Kaiserslautern LBB
Location:	Landstuhl
Project costs:	2.5 Mio. €
Floor area:	approx. 1,450m ²
Project period:	Building design: 2000 / 2002
	Construction: 2003 / 2004
Point of contact:	Frau Bachem
Telephone:	0631 / 5357-347

Project Services:

- Concept design
- Approval design
- Final design
- Preparation of specifications

Specialties:

- Building construction
- Technical building equipment
- Structural design

Reference Project Building Construction

Renovation and Alteration of Bldg. 3761 and Extension of Bldg. 3762, Hospital Landstuhl, Germany

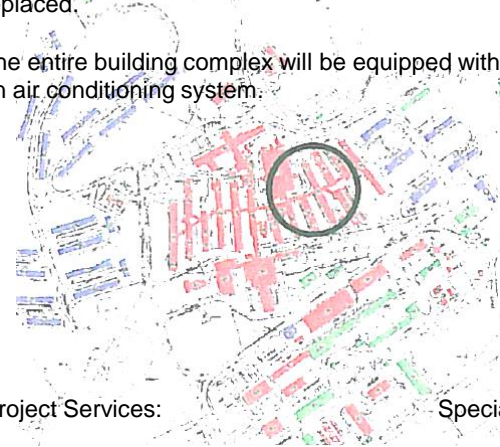


The project is comprised of interior renovation of three (3) building wings in Buildings 3761. Wing 5 A will be finished for internal medicine, Wing 5 C as neurology and Wing 5 D for cardiology.

Furthermore, the existing building will be expanded by an addition.

In order to be able to meet increased clinic operation requirements, it is necessary, to demolish large areas of the existing buildings down to the basic structure and the technical building systems are to be partially replaced.

The entire building complex will be equipped with a sprinkler system and an air conditioning system.



Client:	Staatsbauamt Kaiserslautern LBB
Location:	Landstuhl
Project costs:	3.0 Mio. €
Floor area:	approx. 3,200m ²
Project period/construction design:	2001 / 2002
Point of contact:	Frau Bachem
Telephone:	0631 / 5357-347

Project Services:

- Concept design
- Approval design
- Final design
- Preparation of specifications

Specialties:

- Building construction
- Technical building systems
- Structural design

Reference Project Building Construction

Dental Clinic Ramstein Air Base



The existing Dental Clinic on Ramstein Air Base is presently accommodated in six widely-spread treatment and support facilities. The main clinic consists of two buildings. The main building with Wings A + B was constructed in 1953. The second Building (Wing C) is a modular addition.

Additional treatment stations shall be installed for optimization of patient care and the existing medical departments will be newly configured under functional aspects.

A multi-storey building addition to the existing dental clinic will therefore be erected with integrated access. Furthermore, all building sections will be air conditioned and provided with sprinkler protection.

Client:	Staatsbauamt Kaiserslautern
Location:	Ramstein Air Base
Project costs:	5.87 Mio. €
Building data:	
• Total area:	4.300 m ²
Project period:	1998-2000
Point of contact:	Mr. Stranz
Telephone:	0631 / 53 57-340

Project Services:

- Determination of basics
- Preliminary design
- Concept design
- Final design
- Preparation of specifications and cost estimates

Specialties:

- Building construction
- Technical building systems

Reference Project Building Construction



Reference Project Building Construction

Out-Patient Clinic Heidelberg



The project comprises redesign of the room configuration in the existing building on all four floors under functional aspects to assure optimal patient care.

This includes spatial consolidation of previously separated department sections and adaptation of individual departments to present and planned requirements.

Furthermore, an additional second elevator is foreseen in the building. The complete building will be renovated upon changing of the room program.

A sprinkler system will be additionally installed.

This measure shall be performed with continued use of the outpatient clinic operation.

Client:	Government of the United States of America
Location:	Heidelberg
Project costs:	6.9 Mio. € (divided into 4 building sections)
Building data:	
• Total area:	6.100 m ²

Project Services:	Specialties:
• Determination of basics	• Building construction
• Preliminary design	• Technical building systems
• Concept design	
• Final design	
- Preparation of specifications and cost estimates	

Reference Project General Planning

US Army Clinic (Day Clinic), Grafenwöhr, TA

Personal Reference Christian Kornacker



In the course of planned troop movement of the US-Army to Grafenwöhr in the Upper Palatinate, the existing day clinic had to be expanded due to the increased number of persons requiring treatment.

The existing day clinic from the year 1989 was expanded and renovated inside technically and architecturally.

The entire floor plan was adapted to new requirements and the latest fire protection and safety engineering regulations were implemented.

The entire building accommodates medical departments for: general medicine, gynecology, radiology, physiotherapy and psychotherapy, furthermore, dentistry (20 dental chairs), oral surgery (four oral surgery chairs) and all necessary laboratories and workshops for both clinics.

The building was altered in two construction phases with concurrent retention of medical operations.

Client:	SHBA Bavarian Construction Agency
	Grafenwöhr
Location:	Grafenwöhr, TA
Project costs:	12 Mio. €
Building data:	
Total area:	4.500 m ²
Project period:	2003-2007
Point of contact:	Herr Diedrich
Telephone:	09641 / 9246-0:

Project Services:

- Determination of basics
- Preliminary design
- Concept design
- Approval design
- Final design
- Preparation of award

Specialties:

- Building construction
- Structural design
- Technical equipment
- Heating/air conditioning/cooling/gases and media
- Sanitary systems
- Stationary fire protection
- Electrical systems
- Medical equipment

Reference Project — General Planning



Reference Project — General Planning



Reference Project — General Planning



Reference Project General Planning

US Air Force Hospital, Spangdahlem Air Base

Personal Reference Christian Kornacker



At the time of project initiation, the medical care for the US-sites in Bitburg and Spangdahlem was accommodated in the Bitburg Hospital.

In the course of new orientation and expansion of Spangdahlem Air Base, a hospital for medical care of the staff and dependents was planned to be constructed on the expansion area.

A day clinic with primary health care for ambulant services for psychotherapy, ophthalmologists, ear, nose and throat specialists, physiotherapy and general medicine, as well as a hospital wing with two operating rooms, radiology and 10 patient rooms for emergency treatment and follow-on care was planned. 11 patient rooms for childbirth and gynecological follow-up care were added.

Furthermore, four dental chairs for oral surgery and dental treatment were programmed.

Upon completion of the design and bidding documents, the project was discontinued by the Client.

Client:	Landesbetrieb LBB, Trier Branch
Location:	Spangdahlem Air Base
Project costs:	38 Mio. €
Building data:	
• Total area:	14.000 m ²
Project period:	2000-2003
Point of contact:	Herr Heitzeberg
Telephone:	06 51 / 20 93-0)

Project Services:

- Determination of basics
- Preliminary design
- Concept design
- Approval design
- Final design
- Preparation of award

Specialties:

- Building construction
- Civil engineering
- Structural design
- Technical building systems

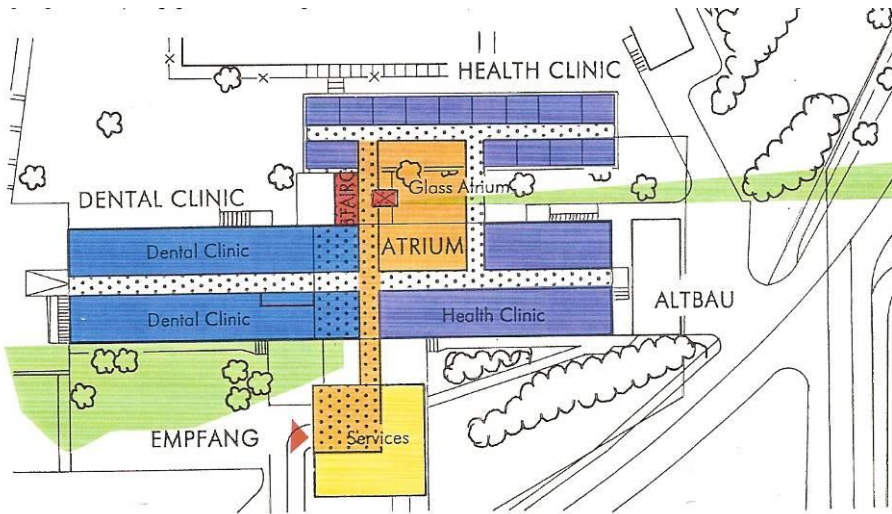
Reference Project — General Planning



Reference Project General Planning

US Clinic Wiesbaden Erbenheim

Personal Reference Christian Kornacker



The existing US day clinic on the US Army Airfield in Wiesbaden was renovated and expanded generously in order to improve the medical care of troops and dependents.

The existing building is a barracks building from 1930. The US-day clinic and the dental clinic accommodated therein suffered from a lack of space and insufficient hygienic conditions. In order to maintain ongoing operation, the addition was built first and then used intermittently. Renovation of the existing building and provision of final utilization followed.

The building was completely renovated and equipped with an air conditioning system in the course of renovation.

Utilization comprised general medical and dental care and departments for physiotherapy, HNO, radiology, ophthalmology and oral surgery .

The project was initiated in 1999 and completed in 2003.

Design and project supervision was performed by Gehrman Consult, Wiesbaden and the design of US-specific facilities by SS&A, Montgomery, Alabama.

Client:	US Army via SHBA Wiesbaden
Location:	US Airfield Wiesbaden Erbenheim
Project costs:	12 Mio. €
Building data:	
Gross floor area:	3.000 m ²
Project period:	1999-2003

Project Services:

- General design:
 - Project organization
 - Technical coordination
 - Costs
 - Deadlines

Specialties:

- Building construction
- Structural design
- Technical systems
- Heating/air conditioning/cold/gases and media
- Sanitary systems
- Stationary fire protection
- Electrical systems
- Medical equipment

Reference Project — General Planning

