## Pfeifer INTERPLAN CONSULTANTS

## SERVING BUILDING HOUSE 35, UNIVERSITÄTSKLINIKUM FRANKFURT Frankfurt/Main (Germany)

## **NEW BUILDING**

Client: Universitätsklinikum Frankfurt

Frankfurt / Main

Architects: H2S architekten, Darmstadt

Our services:

Full structural design Establishing the basis Preliminary design Final design

Approval documentation Execution drawings Preparation of contract award Construction supervision

Structural fire protection Demolition planning Analysis structural conditions

Brief description:

Construction of a new functional building with a shared basement "Haus 35" with the main kitchens for 10,000 meals daily, a canteen for employees and guests, seminar rooms, administration, central stores and delivery yard for 8 trucks

- multi-storey solid construction consisting of three buildings with a base area of 80 x 90 m  $\,$
- complex of buildings fitted into the gap between existing buildings
- 3-storey utility building partly constructed with mezzanine, main kitchen, ancillary rooms and food stores in the basement, large canteen on the ground floor (ceiling up to 7m in height), enclosure for the control room constructed as steel structure using troughed steel roofing as top floor
- 4-storey administration building with office space and ancillary rooms
- 2-storey lecture building with seminar rooms, a main pharmacy distribution centre, kitchen stores and general stores in the basement
- common basement for all buildings
- underground yard, 20 x 38 m, as a column-free delivery area with a wide-spanning compound steel construction providing a headroom of 4.5 m
- 4-laned integrated access ramp with a length of 40 m and slope of 8° suitable for trucks
- foundations to some extent on top of existing foundations, in places strengthened with micro bored piles
- large ceiling spans due to absenece of columns in the canteen area
- reinforced concrete beams with lengths up to 14  $\mbox{m}$
- surface of ground plate in the storage area designed to withstand industrial use, e.g. fork-lift truck traffic
- columns and walls designed to withstand possible impact from fork-lift trucks
- high water table hence necessity to keep level down during the building phase and assure buoyancy-proof completion
- underground floor constructed as a white tank
- building complex erected in two phases
- highest degree of installation in particular due to high equirements in use as well as high safety and regulatory requirements
- green roofs partially used as terraces
- in the outside areas vegetation-covered pergolas constructed as a steel frame spanning 18m

Completion: 2020



Pictures / Illustrations: ProfessorPfeiferundPartner PartGmbB, H2S architekten











