Summary

Objekttyp: **Group**

Zeitschrift: **Bauen + Wohnen = Construction + habitation = Building + home : internationale Zeitschrift**

Band (Jahr): **21 (1967)**

Heft 1: **Geschäftshäuser = Immeubles commerciaux = Commercial buildings**

PDF erstellt am: **13.07.2024**

Summary

Wilfried Beck-Erlang, Stuttgart

Commercial building in Stuttgart

(Pages 2–7)

Completed in 1966, the building in question not only meets the needs of the regional management (1st floor), but it is above all intended to be let, this being in line with the requirements of the authorities.
The building stands in the middle of one of the most important traffic intersections of the business district of Stuttgart. The traffic at this point causes frequent jams, and the degree of air pollution has attained an alarming level. As for the noise, during rush hours it exceeds 90 units on the sound scale.
The elevation forms an obtuse angle along the street and so meets what could be called a plastic necessity.
The organization plan called for the construction of the new building in a space that had remained free, and it prescribed the height and the depth in conformity with those of the neighbouring buildings.
It was necessary, moreover, to instal the accesses to the underground garages on three levels. Entrance and exit were to be separated, without any intersections.
The ground floor is taken up by shops, a restaurant and kitchen. The lobby opens on to the south driveway. It contains three lifts and a main staircase. An emergency stairway, which is open, leads towards the contiguous buildings.
The penthouse is recessed, this arrangement permitting the installation of advertizing signs on the edges of the roof. The projecting face is in this way nicely balanced. The luminous lettering of the signs is of eloxidized aluminium; it is 1.50 meters high and illuminated by means of a luminous tube fixed underneath.
Air-conditioning and acoustic insulation were necessary.
The owner, encouraged in this by the architect, accepted the idea of an acoustic face, whose elements were tested in a laboratory.
The windows, of plastic material with steel core, are furnished with supplementary neoprene joints. The double panes are made up of two insulating sheets of different thicknesses. A supplementary pane prevents the accumulation of heat. Tests have demonstrated that a certain spacing of the panes, with an angle of incidence approaching 90°, guaranteed the best acoustic insulation. Hence the oblique positioning of the windows. For security reasons, there were required apertures 10 cm. wide permitting flames to escape, as well as fireproof window parapets. The partial opening-up of the elevation necessitated a special acoustic insulation between the projecting elements and the front of the windows. Measurements made in the laboratory indicated, for the plan approved, an insulation quotient of 42–45 db. The measurements effected after completion indicated an insulation quotient of 40 db, which satisfied the owner.
The windows, on account of their type and their dimensions, have called for resistance tests, which have indicated proved, an insulation quotient of 42 to shown that in the event of breaking, the fragments would not exceed the dimension of 1 cm. m^3, this representing no danger for passers-by.
Cleaning is effected from the outside, by means of a telescoping ladder. The cost of this face comes around 3% of the total construction cost.

Kurt Ackermann, Munich

Associates in the planning:
Jürgen Feit, Peter Jaeger

Associate in building construction:
Dieter Kiermaier

Mortgage bank in Munich-Schwabing

Plan: 1961/64

Execution: 1964/66

(Pages 8–13)

The long history of the construction of this building reflects the difficulties created by the development of the Bavarian metropolis. The population increase is raising drastic problems, including the building of an underground railway. The approaching date of the Olympic Games demands speedy solutions to these problems.
The new building of the Bavarian Mortgage Bank was to be integrated in a district of Schwabing where many buildings date from past periods of history. A radical transformation in the appearance of this district is called for in the plans for urban renewal. At the present time, the new bank, with its 6½ stories, rises like an alien intruder in these historic streets, but it will harmonize perfectly in the setting of the "Greater Munich" of tomorrow.
The plans were initiated in 1961. The actuel construction work got under way only in 1964.
The building is made up of a reinforced concrete skeleton, and the decks project. The support system consists of prefab raw concrete blocks (Dyckerhoff-white), connected by reinforced concrete ceilings poured in situ. Against the projecting deck ends there have been affixed balcony facing slabs (Dyckerhoff-white). Between the ceiling elements and in front of the pillars there are aluminium window elements one storey high, with insulating glass. No completely air-conditioned tracts have been planned, but ventilation louvers have been installed at the top and in the middle of the walls. The faces on the street are oriented towards the west and the south. They also serve as "publicity boards" for the bank. In order to cut down sun glare and to create uniform light conditions in the offices, it was necessary to instal blinds. Moreover, the problem of window cleaning has been solved by the construction of balconies solely to this end. On the courtyard side, there are only 2 narrow faces of raw concrete. The teller window tract is situated on the first floor, as the proprietors wish to keep the entire ground-floor area as an approach to the Underground station. The ground floor level, then, is made up exclusively of a lobby accommodating an emergency teller's window and a stairway giving access to the rental floors.
A steel spiral staircase gives access to the first floor tract, where the tellers' windows are located. The 2nd floor is made up of a gallery (office premises), and on the 3rd floor we have the executive offices, the soundproof rooms for the accounting machines, the files, the cloakroom and a hall with kitchen reserved for the staff. These floors, occupied by the bank, are interconnected by a lift. The spiral staircase of steel runs from the ground floor to the basement, where the safe is located.
Floors 4 and 5 are to let. The top floor contains 2 attic flats.

Interior finish:
Ground-floor lobby: large dimensioned granite flagging, steel spiral staircase with wooden steps carpeted.
Tellers' windows tract: wall-to-wall carpeting, the partitions are faced with laminated oak elements.
Offices: the ceilings consist of white aluminium perforated panels, built-in light fixtures.

The building can be seen in four different guises. In the day, the light facing of the balconies produces a considerable effect. When the blinds are lowered and completely closed, the building resembles a compact cube. When the blinds are in open position, the building creates an impression of transparency, like a Japanese house. Finally, at night, the balconies and the window-frames appear black, and in the illuminated rooms the light ceilings are clearly visible. The ground floor, in the daytime, resembles an arcaded hall. The walls of the entrance lobby are not apparent, being in the background. The pillars permit a clear view of the support system of the whole building. On the other hand, on the upper floors they remain invisible.

Peter C. von Seidlein, Munich

Associates: Horst Fischer, Hubert Schraud, Reinhold Mähler, Peter Rodemeier, Ute Aschenborn, Hans Lafrenz, Brigitte Peterhans

Siemens AG office building, Saarbrücken

(Pages 14–19)

Supervision and allocation of contracts: Works department for the Siemens AG subsidiaries

Supervision: Willy Thormann, Engin., Erlangen

History: Competition Autumn 1961

Completion in June 1966
1st stage 2nd stage

Net utility surfaces
Offices, workshops, special premises dining-hall, kitchen 6,438 sq. meters = 52%

Storage and garages on ground level and in annex 2,839 sq. meters = 23%

Landings, toilet facilities, stairs, entrance hall and exhibition lobby 1,986 sq. meters = 16%

Miscellaneous, pent-house included 1,134 sq. meters = 100%

Total 12,397 sq. meters = 100%

Organization, construction and equipment

Main building:
Access on the ground level via the entrance and exhibition lobby, with telex and postal central.
In the core running through all the floors there are three lifts for a total of 30 persons, the stairwell, the ventilation shafts, the heating plant and the plumbing, the power mains, as well as the toilet installations. On the upper floors, all around the core, there are built-in lockers with compartments for valuables. On the north side, automatic distributors and an incorporated kitchenette.
The ground floor and the upper floors are completely air-conditioned.
On the basement level, besides the storage facilities and the access to the underground garage, there is located the machine room.
Steel skeleton structure with tie-beams having a 14-meter span and prefab secondary T supports also with 14-meter span.
Elevation of hard, dark-grey eloxidized aluminium and thermopane glass. Cleaning of the face via a gondola. Centrally operated outside Venetian blinds.
Flat gravelled roof.
Acoustic ceiling of metal panels which are perforated and measure 87.5/87.5. Floors carpeted in the large rooms. On the 5th floor and in the casino, double wooden partitions. Luminous ceiling giving filtered light in the lobby. Telephone facilities with 50 service lines and 500 secondary phones. Telex facilities, pneumatic communications system with stations on all the floors of the main building. Public address system. Televized supervision of the secondary entrance by the doorman in the main lobby.

Casino:
Self-service system of distribution. Towards the west, two air-conditioned dining-rooms for guests and banquet rooms. Between them, the kitchen with utility rooms and stairs to the basement, lighted by a skylight. Toilet facilities and cloakrooms, heating subplant, ventilation system, electric installations, storage space and supplies. Deliveries via the underground garage.

Underground garage:
Underneath the service yard, with access to the main building and to the basement of the casino. Ventilated by blower. Sprinkler installation and foul air warning system.

Peripheral building:
On the ground level, with service station comprising three car-wash cubicles, a repair shop with utility premises and rooms for employees, garages, transformer, electric installations.

1. The competition program called for offices for 500 persons in the first stage, and additional offices for 300 persons in the second stage. It envisaged, moreover, a casino, garages and a service station. The four sections meet these requirements: a main building of five floors
a casino at grade level
workshops set in the slope of the site and
the underground garage with capacity of 72.

2. From the standpoint of the passer-by, only the main building appears first of all. A cubic volume, with recessed ground floor. With its five floors, this building is but moderately high. All it needs, then, are on stairwell and one central core. In its final stage, it will display nine fields measuring 14 × 14 meters, constituting a square surface 42 meters on a side.

3. An office with the dimensions realized here presents conditions that are hardly typical in an office building. What is required are tracts without supporting pillars allowing for flexible subdivisions. The high ceiling favours the installation of airconditioning equipment.
The Siemens filtered light preseribed by the owner has been installed in the shape of 8×65 units and incorporated in the ceiling. The air-conditioning system, installed along the outside wall, has no effect except over half the depth of the room (14 meters). This is the reason why high-pressure equipment has been installed in the ceiling cavity, in the interior tract. This equipment constitutes one single unit with the lighting fixtures, whose filter likewise serves the ventilation system.
The electric power lines are run in under the floor, servicing floor plugs. Carpeting and ceiling furnish satisfactory acoustic insulation.

4. Except for three management offices and three inside conference rooms, there are no small rooms. It has not been necessary to design the elevation as a function of the various-sized rooms, but as a function of the maximum dimensions of the double-paned windows (9.5 sq. meters), the resistance of which has been revealed to be sufficient to obviate any special kind of protection.
A decisive factor in the conception of the face was the wish to avoid excessive air-conditioning equipment by means of external installation of the blinds. The low height of the building and its sheltered situation have made possible the use of Venetian blinds.
The hard eloxidized aluminium surfaces are highly absorbent of solar radiation and become very hot. Hence considerable stresses, of which account had to be taken, especially by the use of double sheet-metal parapet panels 3 mm. thick.

5. The casino, with its 184 seats and its many subsidiary premises, is surrounded by a wall which separates it from the street and the service yard.
The atmosphere here is appreciably different from that prevailing in the office building, owing to the distance separating it from the latter, and owing to the gardens extending in front of the windows, the white-painted woodwork on the ceiling and on the partitions, the oak furniture.
As for the site itself extending toward the north, although it is still covered with buildings, it is planned to make it a green zone in the new urban complex.

Frank Geiser, Berne
Associate: K. Siegrist

Office building with three large tracts in Berne

Plan: 1963/64
Execution: 1965/66

(Pages 20–24)

When the building firm decided on the erection of this structure, the tenants of the office space were not yet known, so that it turned out to be absolutely necessary to elaborate a systematic plan that was as flexible as possible.
The building comprises 3 equal floors, each made up of a tract whose utility area is around 750 sq. meters. On a first basement level, we have the concentration of technical installations and a garage. The shelters prescribed by law, comprising escape corridors installed on the 2 sides of the building, are situated underneath the technical core, on a second basement level. The distance between the 2 supports of the construction is 6.80 meters, in both directions. The elevation columns have an axial interval of 3.40 meters and the interior partition elements one of 1.70 meters. The latter dimension recurs in the ceiling units, they in turn divided into 3 parts. The panes measure 3.26×2.38 meters. The basement levels are constructed of concrete poured in situ by means of coffering elements measuring 3.40 meters, which are prefabricated. The upper stories have a steel skeleton structure. The face is of polished aluminium, which is electrolytically oxidized. The windowpanes of special glass, heat-insulating, bronze-coloured, are one centimeter thick. The external joints are caulked with Thiokol.
The power distribution is effected in the technical installations tract on the first basement level. That is also the starting-point of the fresh air ducts, by way of the cavities in the exterior supports, running to each level. On the other hand, the hot air ducts and the ventilation conduits are in corporated in the plumbing shafts. All the steel supporting units are provided with a facing of prefab concrete elements. The joints are stopped by means of moulded synthetic substance. The electric installations (in circular ducts) are incorporated in the floor in wells of sheet metal. In the large tracts the floors are covered with carpeting of artificial dark-grey fibre.
The entrance stairs, the stairwell and the tiling of the toilets are of black artificial stone. Curtains of greyish-white fabric serve as sunbreaks.
The architect, pupil of the Institute of Ulm, has in this project followed to a great extent the example of Mies van der Rohe. This influence is particularly visible in the clear and precise execution of the details.

Plan and design: Helmut Weber, Hannover, and Dieter Ganns
Construction: Johannes Hohla, Essen
Statics: Manfred Göttlicher, Kaiserslautern

Core support style

(Pages 25–28)

The cooperation among the engineer, the architect and the statics man has yielded a novel structural system, the "core support style", which has a remarkable flexibility and furnishes a new solution to the problems of urban building.
What is involved here is a reinforced concrete combined construction system for multistorey buildings. Cores in two parts serve to support all the vertical and horizontal loads. They likewise incorporate all the communications, such as stairways, lifts and installations shafts.
The cores are built with the aid of sliding coffering. From the moment the assembly of the supporting system of the ceilings in finished, the cores are statically tied in with the decks. These supporting systems are each one storey in height. They are prefabricated in sections. Not only above but also below the plinth there are transversally affixed supporting elements which project from the two sides of the principal supports. The supporting systems being statically independent of one another, it is possible, in high buildings, to concrete several floors at the same time.
The elevations can be set up according to the curtainwall method or, again, they can be made up of several simple elements (such as windows, wall sections, sunbreaks). The complete absence of support elements on the outside leaves the architect a completely free hand in the design of the faces.
Finally, we suggest comparisons of finished projects carried out by means of the core support style. Our deduction is that this system renders possible the creation too of freely planned buildings making use of prefab elements.

Actuality

C. F. Murphy Associates, Skidmore, Owings und Merrill, Loebl, Schlossmann and Bennett, Chicago

Chicago Civic Center

(Pages 29–40)

Chicago has been given an important new building, the Civic Center, accommodating the courts and other official agencies.
The building site that was selected is next to the old court house, which with its pompous elevation still stands in the vicinity of the steel high-riser. The new building was planned in 1961, construction being completed in 1966.
To carry out the plan, the architects needed 135,000 square meters, which fact was decisive in inducing them to erect a 35-floor skyscraper. Owing to this concentration, it was possible to lay out a public park where thousands of the residents of this district come to relax.
Originally, 60 lifts were intended to service the 35 floors. On the other hand, the idea of escalators was abandoned at the outset. A subsequent restriction in the program reduced the number of court rooms to 121, so that the high-riser in the end comprises 31 floors and 42 lifts.
All the court rooms are concentrated toward the interior of the building, where they can be completely air-conditioned. On the other hand, the offices are located toward the outside faces. Thus, the judges and attorneys enjoy a relaxing view out over the city. Inside corridors and private lifts run from the judges' offices to the court rooms. The module adopted here is around 1.50/3.00 meters. The court rooms, obviously larger, run up for two stories. 16 main supports in a cruciform arrangement carry this huge tower structure, and 12 secondary supports reinforce them in the core of the building. At the time the plans were drawn up, great emphasis was laid on the need for abundant fresh air in the court rooms, which are occupied by crowds of people. This is why the lower ceilings and the edge of the supporting ceilings contain a hollow space measuring around 1.90 meters to house the air-conditioning ducts. The high-riser is 200 meters high.
The ground floor consists of an open lobby two floors high, 3 meters in height. The 2 basement levels are occupied by the public health department, in particular, consulting rooms, laboratories, records, a garage and a restaurant. The public health administration is located on the est floor. The floors above are occupied by various local agencies. The head office of the attorneys and the record office of the court are installed on the 4th floor. On the 7th floor we have the office of the district attorney and those of the process servers. As the 6th, 7th and 8th floors are in heavy use, they have been interconnected by means of escalators.
The 8th floor in fact is subdivided into 2 stories. It houses the technical installations of the lower floors. On the floors above we have the accounting offices. The court rooms are situated from the 12th to the 25th floors. The highway administration occupies the 26th and the 27th floors. The court library, accessible likewise to the public, is on the 28th floor. On the 29th floor there are 2 rooms for the Court of Appeal. The 30th level is subdivided into 3 stories, containing the installations for the upper floors of the high-riser.
Construction materials employed
The architects' design for the outside of the building is open to question: the supporting skeleton is of steel, however, for reasons of fire protection, and it was necessary to face it with concrete. Nevertheless, in order to give the building the appearance of a steel high-riser, the concrete facing was in turn sheathed with sheet metal. The material employed for this exterior skin, as it could be called, is "Cor-Ten-Steel", which produces a thin oxidation layer so as to prevent further corrosion. The windows, running from floor to ceiling, are likewise furnished with frames of this same "pre-rusted" material. The window glass is bronze-coloured.
The panelling of the walls in the courts rooms is done according to a system of oak fillets. Moreover, a part of the interior wall facing is of green granite. Everywhere the floors are covered with grey wall-to-wall carpeting. The offices are furnished with acoustic ceilings with built-in light fixtures. The facing of the walls in the corridors of the basement levels is of brick, the floors of "granito".
The plaza extending in front of the high-riser is paved with Rockville granite flagging. There is also set up here a metal sculpture 15 meters high, by Picasso, and this is the central attraction of the Civic Center.