Werk

Titel: Behind the Scenes - The Red Tape Needed to Get a Library Project Built in Bavaria...

Autor: Grube, Oswald W.

Ort: Graz

Jahr: 1991

PURL: https://resolver.sub.uni-goettingen.de/purl?514854804_0001|log40

Kontakt/Contact

Digizeitschriften e.V.
SUB Göttingen
Platz der Göttinger Sieben 1
37073 Göttingen

info@digizeitschriften.de

Behind the Scenes -

The Red Tape Needed to Get a Library Project Built in Bavaria -

Planning and Realization of the Speicherbibliothek Garching.

OSWALD W. GRUBE
Architekt BDA/DWB, Herrsching

Early in the year of 1978 the Executive Office of the Administration of Bavarian State Libraries submitted a formal application to the Bavarian State Ministry of Education and Culture to build a new research library. Such an application includes a program outline room by room, with sizes and requests for special features such as uncommon air temperatures, special material surfaces, lightning etc. It also includes a list of personnel required to run the new facility and their pay scales. The room list must logically correspond to the personnel list. After submission the application must be jointly approved by the Ministry later responsible for running the facility, and by the State Ministry of Finance. When the program has received subsequent approval by these authorities the Bavarian State Bureau of Public Construction is approached to commence upon the first planning phase. This office is part of the Ministry of the Interior and more or less takes the place of an independent Architect for the project. I said 'more or less' because in many cases the various building and design offices working under the Burau farm out commissions for entire jobs or parts of them to architects in private practice either by appointment or as the result of archtectural competitions.

In fact, the BDA (Bund Deutscher Architekten), follows events in this field very closely and they publish a black list of larger public structures that have been designed in-house by state offices not using their services. We can claim the honour of having been put on this list although we actually did employ a number of private engineers and a private architect for on-site supervision. The function of the state architectural offices differs from the function of private offices mainly because we also take care of the owner's or user's interestes and because we continue to be responsilbe for the structures we design after they have gone into operation. Exect for the Ministry of Finance and a few special agencies all state goverment departments have to make use of the services of the Ministry of the Interior's Bureau of Construction to take care of their building needs.

The first planning phase consists of an investigation if and how in general terms a proposed project can be realized on the available site and what overall costs will likely result. This estimate is reviewed by the Ministeries of Culture and of Finance, and after approval the second planning stage, now involving funds, is commissioned. That consists of a complete set of design documents, scale 1 : 100, a detailed cost break-down, and the building permit from local authorities. In order to complete that stage the advice of mechanical, electrical and civil engineers - and possibly an architect in private practice must be sought. All of this plus the input of the state office itself involves the commitment of about 20 to 25% of the entire planning costs or fees for the entire project. These fees in turn constitute about 12 to 15% of the entire project cost. The state building offices do have mechanical and electrical departments which are, however, not adequateley staffed in quantity and quality to enter into planning work of their own. All work in these areas is therefor given out to privat engineering offices and is then reviewed by the applicable departments in the state office.

In the case of our library the State of Bavaria was the sole source of funds. The garching research library is not a university building proper although books from university libraries around Bavaria are stored there and could eventually make up 50% of the entire stock. I make this point because university buildings are subject to a funding scheme wehere costs are split 50 by 50 between the Federal Government, to this day in Bonn, and the State governments. It remains to be seen if this system, which has lasted for decades, will be continued in the face of the Federal Goverment's increased financial burdens for the unification of Germany.

Let me briefly explain how the planning process with university buildings is. In that case a central review board for Germany in Bonn, the 'Wissenschaftsrat', classifies applications from state governments for university projects according to a sequence of urgency. Only grade one projects get approval for the 50% funding from the Federal Government. The costs for such buildings are regulated b a system of construction cost limitations which apply everywhere in Germany in the same way. Working with this system it is useless to calculate the real costs of a project from experience on the basis of the local cost situation - approval will only be given both the 'Wissenschaftsrat' and by the state Ministry of Finance in the limits of this costs structure imposed by bureaucrats far from the actual scene. Our experience with many recent university projects is that this cost structure is completely inadequate. It does not account for local variations and for the development of a project over a number of years between the time planning starts and the time the building is finally turned over to its user. And it hardly accounts for special requirements. The inevitable result is the necessity of the state office to come back and apply for additional funds - sometimes more than once during the construction period. This involves a lot of paper work, holds

up work on the site and puts back time schedules. The final result is almost certainly less economical than it would have been had e realistic estimate been allowed at the beginning of the planning process. Fortunately the first phase of our research building in Garching has not been subject to this tedious process. We made a detailed cost estimate based on actual requirements and a breakdown of costs for all individual parts of the structure. This estimate proved to be correct to the end - although unecpected costs had to be dealt with as is the case with any building. We hope the subsequent phases of the building will not have to be built under the regulations governing university structures. The Ministry of Finance, of-course, would like this to happen in order to take advantage of the 50% funding by the Federal Government.

Let me get back, however, to the planning process for the part of the library project that has so far been built. Although the Bavarian Ministry of Finance approved the building application as submitted early in 1981 by the Ministry of Culture they were shocked to find the cost estimate for this program by our office in October 1982 came to the sum of 69,3 million marks. One of the reasons had been that the original program asked for only about 10% of the books to be stored in compacted shelving systems. We actually planned for 11,2% and we advised to consider a much higher percentage. Our project study also proved that up to eight million volumes can be eventually accomodated under the zoning regulations of our building site.

Now we are arrived at a crucial stage: the state budget had provided only ten million marks for the library project - an estimate not based on data of any kind. This estimate had never been revised during the ten-year period when authorities searched for a suitable site before Garching was selected. Faced with our 69 million figure in January, 1983, the Ministry of Finance told us bluntly they didn't have the money and the most they couls come up with was 20 or 25 million marks. The Administration of Libraries was forced to succumb in order to proceed with the project at all. New guidelines, however, were set:

- Compact shelving was to be used whereever possible. The goal was to accomodate about two million volumes, enough to satisfy forseeable demand to the middle of the nineties.

- Special deep shelving for about 3.000 running metres of journals had to be all but ommitted.

- The janitor's apartment which had been part of the original concept had to be eliminated and security was delegated to nearby university institutions. Only a small amount of office space was to be built in the first stage.

Our office cut the original design into smaller portions or stages, and assisted the user in writing up a new program for a first stage which could be realized in the pre-established finacial framework. Meanwhile April, 1983, had arrived. By

May, 1984, the detailed calculation for this first stage was submitted on the basis of technical projects and plans by our office. The cost in this submission to the Bureau of Construction was set at 24.300.000 DM. This, however, excluded costs of about six million marks for the movable compact shelving system. Under budget regulations the budget title for a building is split into built-in and fixed components - what generally is regarded as the 'cost of a building' - and moveable furniture and equipment which is applied for and purchased by the user after approval from his Ministry with only advice from the architects. Typically, moveable equipment means furniture, typewriters, computers etc. In our case we were able to allocate a substantial element for the functioning of the building in the essential depot spaces to this seperate account, formally minimizing building costs.

In October, 1984, we were commissioned to start on the working drafts, details and specifications on the basis of our calculation. After the major bids had come in by April, 1986, it turned out the offers would keep the project in the limits of the established costs and we gained permission from the District Government of Upper Bavaria to start construction in May, 1986. In November, 1988, the finished building was turned over to the user who started to move the books in. This took about a year to accomplish. Although we don't yet have the final figures we know that we shall remain by about half a million marks below our original cost calculation.

The future will see an expansion of the library in stages. It seems that the process to abtain the required funds will repeat itsself, and the program as developed in joint action between the Library Administration and our office for a second stage again faces a breakdown into two or three phases. Due to the costs of German unity funds to build the entire second stage, presently estimated by us at about 55 million marks, will not be available in one effort. At this time we are trying to convince the Ministry of Finance at least to put us in a position to build the envisaged phases one after the other without intermedite delays. I cannot tell you if we shall be successful. However, we do have to design the entire second stage including working drawings in one planning effort because the parts are too closely connected both architecturally and in their technical services to be split up. We hope for a commission to start the planning phase of stage 2 at the beginning of next year.

Concluding our review of planning processes and procedures let us briefly look at the steps that were necessary to procure a building permit. German planning laws and construction codes form a complicated network into which our project hat to be carefully integrated. In our case the Technical University did not want the library on those parts of their Garching campus that are zoned 'special areas for university and research uses'. But we found a good location on the fringe of the campus adjacent to a main traffic artery and major services. This site, however, had to be rezoned from agricultural use to fit our purpose. You

probably know that it is quite difficult - if not outright impossible these days - to talk a town council into such a change if there is not an obvious advantage for the community. In our case, due to the natur of the site, the fact that it was already in public possession and that it is located near the university campus the town council agreed to rezone,. But there wre a number of restrictions imposed by the council when granting its permit which have become important parameters in the design of the complex - even including future stages:

- In keeping with other recent structures in the area and with regard to the flat treeless scenery building heights are restricted to a maximum of nine meters above ground. The first stage has three floors, each three meters in oveall height. Higher parts for elevator and air conditioning equipment penetrating the roof at the service towers are extepted from this restriction. By this town ordinance other models for storage libraries, f. e. towerlike narrow structures, werde excluded from consideration at the beginning of the design process.

- A special plan for landscaping the area surrounding the library hat to be submitted to the town authorities for approval. By this provision a larger area than we originally assumed had to be landscaped. As part of this space fell on land allocated to the university we could use some of their funds. Landscaping was complicated by the fact that areas set aside for lter development could be only extensively planted to avoid future destruction.

- Varied massing of the large bulk of the library complex was requested by the town. Although this will only be realized in full extent in the next stages - the first stage has been built strictly as a storgae silo - the service towers with their setbacks do add scale and interest to the building even as presently completed. Looking at the model of stages one and two combined you will observe a very little massing scheme towards the approach road, and a courtyard at the entrance. All this is scheduled to happen at stage two. Permission to build was granted after submitting this overall design to satisfy the town council.

- Many specific demands werde made in the process of plan review by authorities like the fire department, fire insurance, the supervisors of commercial structures and quite a few others.

The most influential restriction was without doubt the limitation in height. Given the amount of book storage spaces that have to be provided on the site low building heights must necessarily lead to large enclosed areas that have to be artificially ventilated. Natural cross ventilation is not sufficient any more for such a footprint. We used a combination of operable ventilation slots on the outer walls and an interior string of complimenting forved air ventilation pipes and outlets. The window slots double as smoke exhausts in the case of fires as

requested by the fire department. As far as we can see now this seems to work adequately and economically.

Only the fully enclosed high security areas below ground - where conventional fixed shelving is used - are fully air conditioned. The outside walls of the building are exceptionally thick to keep changes of temperature and moistrue in the storage areas as low as possible. In the design of the second stage experiences in running the building will be incorporated and improvements will be made where needed.

I do not intend to end up going into details of construction. The reason I refered to this is to make clear thar our design results to a good part from building code restrictions regulating our site. The formal building permit for the first stage was granted in September, 1984, and it includes a general permit to build further stages according to our overall design. This, of-course, means that the second stage must at lest roughly correspond to our model in order not to endanger our permit.

I am well aware that the topic of may talk has not been very entertaining for you to listen to. Although codes and regulations differ from state to state - even from city to city in certain respects - in the Federal Republic and even more all over Europe, the basics remain pretty much the same. It is imporant for the success of any project to find out about these essentials that form the planning network as early as possible, and to evolve a strategy of dealing with them. The real-life-story of our Garching library building may have brought this point home to you.