









High-Rise Buildings in Vienna

stadtentwicklung

Stadt Wien ist anders.

# **Foreword**



Stadtrat DI Rudolf Schicker

Many do not like them at all; for some, their place is at the urban periphery or "across the Danube"; yet others are their enthusiastic champions. One thing seems certain, though: high-rise buildings are an issue that will leave nobody cold. Where should they be located, are they necessary at all, or should we rather consider them essential symbols of a new era? With the present high-rise concept, the City of Vienna has in part drawn on international experiences to create binding guidelines for high-rise construction projects in the Austrian

capital. The idea behind the concept is not to "kill" all high-rise projects; neither is it to encourage unfettered and unchecked development.

There can be no doubt that high-rises are emblematic of our time and thus must form part of the urban texture. It is equally true that Vienna is no typical skyscraper city and thus does not want to compete with New York, Kuala Lumpur or Frankfurt. With all due respect of the city's historical heritage, however, contemporary architecture must be given its – prominent and visible – place. The new high-rise concept has simply clarified the frame conditions that are to control this development: it is evident that high-rises should neither be greenfield developments nor impair the historical heritage of the city. Zones where high-rise construction is either excluded or admissible were defined as such; investors will be more closely involved in the entire process; local residents must be informed and have their say about planned projects at the earliest possible moment; good accessibility by public transport is a prerequisite, as is compliance with ecological aspects; finally, architectural quality is an essential criterion that must be safeguarded. In all this, however, the City of Vienna certainly does not want to play the role of an "arbiter of good taste" that decides on whether a building is "beautiful" or "ugly".

For the City of Vienna, it was obvious that the new high-rise concept should be submitted to a broad public debate before being adopted. For the first time, an Internet forum was established for this purpose to enable all interested parties to state their opinion concerning the draft concept, to exchange views and to discuss the high-rise issue with others. By the same token, specially invited expert panels provided essential impulses for the final concept; last but not least, the draft concept was discussed in intensive talks involving all political parties represented in Vienna's city government.

With the present high-rise concept, Vienna has created a solid basis to give contemporary developments in architecture their due place without losing sight of the historical dimension of the Austrian capital.

Yours sincerely,
DI Rudolf Schicker
Executive City Councillor for Urban Development, Traffic and Transport

 $1^{\rm st}$  photo: High-rises being built for the Donaucity project atop the "cover" of the Danube riverbank motorway in the  $22^{\rm nd}$  municipal district.  $2^{\rm nd}$  photo: Ringturm high-rise in the background and IBM Building (on the right) on Danube Canal in the  $1^{\rm st}$  and  $2^{\rm nd}$  municipal districts.  $3^{\rm nd}$  photo: Housing estate on the Old Danube in the 22nd municipal district.  $4^{\rm th}$  photo: Twin Towers and other high-rises on Wienerberg Hill in the  $10^{\rm th}$  municipal district. Millennium Tower on the Danube in the 20th municipal district.

# **High-Rise Buildings in Vienna**

History has shaped Vienna's very specific character. The key historical concepts for the city's architecture include the creation of the Ringstrasse boulevard starting in 1856, the training of the Danube River (1869-1875), the adoption of the Vienna Construction Zoning Plan in 1893, which entailed the staggering of building heights so typical of Vienna, and the City Council resolution to establish a green belt around

Code of 1972 finally created a legal basis to define protection zones for historic architectural units and since then has provided reliable protection for large parts of the old city as well as of former village centres.

#### The Urban Development

Plan of 1984 formulated an urban concept for Vienna, which was subsequently updated in 1994. Its central points include com-



Map of Vienna before the training of the Danube. The coloured zones document the growth of the city.

the Austrian capital, the "Wald- und Wiesengürtel", in 1905.

This historical situation also determined the development of high-rise buildings in Vienna. Far into the 1950s, there was practically no talk of such projects. The few existing examples (the high-rise in Herrengasse or higher building segments, e.g. of the Engels-Hof housing estate) should rather be viewed as experiments. Later, too, highrises such as the Ringturm were considered special construction projects and hence dealt with on the basis of separate legal provisions. In 1960s and 1970s, building heights were deliberately exceeded in peripheral urban expansion areas, albeit without larger concepts behind them (e.g. in Alt-Erlaa). To this day, projects like that housing estate communicate the impression of a cityscape deprived of visual or architectural rules. The Old City Preservation Amendment to the Vienna Building mitment to a relatively compact urban structure, whose building density is contingent on accessibility by public transport; prioritisation of inner-city development over urban expansion; a polycentric urban structure; commitment to a city of short distances, where many destinations can be reached on foot; promotion of urban expansion along settlement axes served by high-level public transport lines; definition of axial settlement zones and intermediate green areas.

In 1991, COOP Himmelb(l)au/Synthesis prepared a high-rise concept for the Urban Development Plan of 1994. This concept took account of the principles of urban development and improved the legal and economic frame conditions for high-rise projects.

In Vienna, there are currently only about one hundred buildings higher than 40 metres. Thus the Austrian capital is far from being a "skyscraper city". And yet, new frame conditions will be needed in the field of high-rise construction. At the moment, Vienna is developing very dynamically, and the progress made in construction technology, the trend towards economic globalisation as well as changing work, leisure and consumption patterns necessitate a wider leeway for potential developments, also with respect to high-rise buildings.

### The priority objective

of the urbanistic concept lies in adapting Vienna's urban structure to the population's needs, an objective that is also embodied in the Urban Development Plan for Vienna. The historic city centre needs an attractive use structure that corresponds to its specific architecture, while the urban growth and development zones require basic supply structures and small-scale mixed-use networks.

To this day, there still exist approx. 80,000 badly appointed flats in Vienna; some building and block structures no longer meet modern standards, either. These zones require gentle urban renewal involving new schools, kindergartens, open areas,



Millennium Tower: Vienna's highest skyscraper is the centre of a new residential neighbourhood in the 20th municipal district.



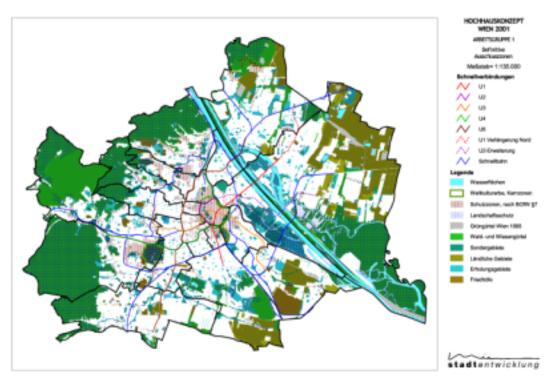
Media Tower on Danube Canal in the  $2^{nd}$  municipal district: A perfect example of urbanism and architecture

garages and parks. However, all renewal measures – even in new development areas and in case of large-scale individual projects – must respect Vienna's specific urban character and thus meet the criteria of spatial and environmental compatibility.

In keeping with international models, citizens are to be involved in the planning process for large-scale projects (starting at 25,000 square metres of gross floorspace or building heights exceeding 35 metres) even before commencement of the land allocation procedure. In addition, there is a time limit to administrative decisions on construction plans for high-rise projects. Thus the spatial, environmental and social compatibility of the concept submitted for the development of a lot will have to be again demonstrated after expiry of the original land allocation and construction plan.

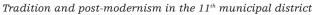
### Vienna's urban planners

have examined various possible approaches on the basis of international models and identified specific aspects as suitable for emulation. The high-rise concept by GOOP Himmelb(l)au/Synthesis, too, is still valid but will have to be rendered more concrete where its legally binding implementation is concerned. The following steps are recommended:



Map of all zones where high-rise construction is definitely excluded in Vienna

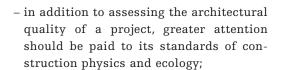
- definition of urban and green zones worthy of preservation as zones where future high-rise projects are categorically excluded:
- addition of areas designated for possible high-rise buildings to Vienna's traditional urbanistic structure;
- allocation of lots for high-rises within suitable zones (to be carried out on the basis of a binding urbanistic master-plan);
- architectural approaches that meet Vienna's standards should be treated favourably in the future by not classifying them as high-rises;







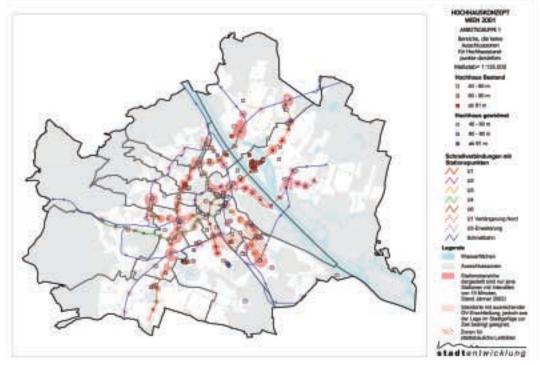
Residential building of the Donaucity project in the  $22^{nd}$  municipal district





High-rise at the centre of Ottakring (16th municipal district) with U3 Underground station

 to improve quality assurance, it seems useful to involve the citizenry in project development even before kick-off of the project approval procedure.



Please new Text!!!!!!!

### **Imprint:**

# **Planning Principles**

## **Designated zones**

Areas designated as potentially suitable for high-rises equal those urban zones where high-rises have not been categorically excluded. However, in order to classify a zone accordingly, it is necessary to also stipulate certain urbanistic guidelines, which must be adopted by the Urban Development Commission of the Vienna City Council. The draft map of possible high-rise locations identifies zones of excellent present or future (i.e. on the basis of already defined development plans) accessibility by public transport (maximum walking distance to next PT stop 300 metres), irrespective of whether suitable lots for high-rise buildings are currently available in those zones. High-rises are to contribute positively to the development of the urban structure. For this reason, another key criterion concerns the extent of private car traffic, which must not exceed 25% of the overall traffic volume generated by the project. This objective excludes several peripheral locations for high-rises. Another criterion is a positive evaluation on the basis of the 10-point checklist.

#### **Excluded zones**

In order to protect the cityscape and valuable landscape sections, high-rise projects are categorically excluded in certain zones. These include protection zones decreed under Art. 7 of the Vienna Building Code as well as already decreed or planned landscape protection zones under the Vienna Nature Conservation Act. In addition, this list encompasses key lines of sight and visual axes that are essential for perceiving characteristic views of Vienna. Moreover, the register of excluded zones contains panoramic viewpoints (Kahlenberg Hill), historic lookouts (Belvedere Palace), vantage points atop publicly accessible buildings (Danube Tower) as well as important monument protection zones (Schönbrunn Palace and its environs, Neugebäude Palace, Augarten Palace)

Areas that according to the Urban Development Plan are unsuitable for condensed structures are likewise excluded, e.g. large-scale green zones, peripheral, sparsely developed tracts of building land and zones allocated to other development categories (special areas, allotment gardens and similar) without sufficient public transport links.

### **Urbanistic master-plans**

These master-plans formulate the frame conditions for the urbanistic development of a city quarter. They are composed of a status-quo analysis, a development potential evaluation, a use concept, an assessment of the existing infrastructure, a traffic and transport concept as well as of a list of both green and open zones to be protected and of required development measures.

Moreover, they contain an urbanistic design concept and an overview of development phases and interdependencies as well as of the effects on the urban structure and economy.

For the time being, four zones have been singled out for compilation of such urbanistic master-plans: in the  $2^{nd}$  municipal district, this is the Vienna Trade Fair - Stadium - Donaustadt Bridge zone. For the 3rd, 10th and 11th municipal districts, it is the area of Vienna Railway Station - Arsenal -Aspang Station - Neu Erdberg - Simmering. In the 21st district, this zone equals central Floridsdorf, and in the 22<sup>nd</sup> district, it is central Kagran - Donaufeld. The individual master-plans will be ready in two years at the most. Moreover, a private project is currently concerned with a master-plan for the Europaplatz Square - Western Railway Station area in the 15th municipal district.

### **Reliable land allocation for high-rises**

For investors as well as for Vienna as a business location, clear and unambiguous legal prerequisites for projects are essential. For this reason, all bindingly decreed







Zones excluding high-rise construction: Inner City, Schönbrunn, Green Belt (Vienna Woods)



and stipulated high-rise locations and plans – e.g. the former Erdbergstrasse marshalling yard, the Porr lot on Laaer-bergstrasse and Hernalser Gürtel – have been safeguarded as such until the end of 2005. If this deadline is not met by the developers, their projects will have to be modified in keeping with the applicable master-plans or guidelines.

# Leeway for design

The Vienna Building Code provides for a certain leeway for the design of structures

falling within building classes I to V. For this reason, it seems acceptable to exempt buildings with a total height not exceeding 35 metres and located outside excluded zones from high-rise classification and to consider granting certain derogations from building construction law for these cases, which, however, must not surpass the locally admissible intensity of space use. For example, it might be acceptable to design building layouts on the basis of escape route lengths instead of fire lobby dimensions.

PLANUNGSABLAUF	Commissioned by	Participants
Phase 1: Urbanistic master-plan	Urban Planning Department	
Phase 2: Location planning	Urban Planning Department / Project developer	
Phase 3: Project study (studies)	Project developer	
Phase 4: Preliminary concept / Competition	Project developer	Urban Planning Department
Phase 5: Public presentation	Project developer	Urban Planning Department
Phase 6: Project assessment / Project clearance	Urban Planning Department	
Phase 7: Land allocation procedure / Contract negotiations		
Phase 8: City Council resolution / Legally binding construction plan		
Phase 9: Submission of plan / Approval procedures / Building permit		

If the project developer proceeds speedily with its project, phases 2-5 may be estimated to take roughly 8 months, phases 6-8, another 9 to 12 months.

# **10-Point Checklist**

- Together with the concept for the planning schedule, an interdisciplinary project team composed of experts in such fields as location planning, traffic planning, architecture, civil engineering and utility planning must be appointed. It is further recommended to select consultants for further specialised areas including green space planning and land surveying.
- 2. It is assumed that the location has already been subjected to a comprehensive assessment concerning its suitability for a high-rise project and its compatibility with the urban structure and transport situation. In order to evaluate its compatibility with the urban structure, the planned purpose, planned intensity of use and effect on the urban structure of the relevant surrounding area must be taken into account. In order to ensure compatibility with the



An ideal location with an impressive building: High-rise at U1 Underground station in the 22<sup>nd</sup> municipal district

- transport situation, the share of private car traffic must not exceed a maximum of 25% of the overall volume engendered by a high-rise project (if necessary, restrictions to regulate the number of car slots beyond those of the Vienna Garage Act must be applied towards this purpose); the project must moreover be adequately connected to the high-level public transport network.
- 3. In addition, the project's integration into the urbanistic and architectural context needs to be checked as well: the high-rise must interact positively with the surrounding urbanistic structure and other projects in the environs. This is ensured by its compatibility with the objectives of the applicable urbanistic master-plan. The architectural designs of high-rises and groups of high-rises must be arrived at through competitions.
- 4. The shade effect of the respective highrise must be clarified. At mean solar altitude (21 March), the shading of the windows of lobbies and common rooms of existing buildings or façades must not exceed a "2-hour shadow". Likewise, the wind effect of high-rises in excess of 60 metres must be evaluated on the basis of fluidic studies; if necessary, measures to reduce disadvantages for the surrounding area must be submitted.
- Apart from adequate connection to the traffic and transport networks, the project must also meet the technical and social infrastructure standards.
- 6. The social and public benefit created by the high-rise must be demonstrated: new open zones, additional cultural facilities, design of the surrounding area, public and semi-public zones inside the building, elimination of structural deficits of the surroundings (e.g. green zones, garage for residents), etc. A noticeable improvement of the surrounding open space should be co-financed through the project.
- 7. The sustainability of the planned purpose and the flexibility of the building's structure to react to unforeseeable changes in its use must be demonstra-

ted: it is recommended to opt for higher, use-neutral room heights. In particular with respect to apartment high-rises, the quality standards for maintenance cost, rehabilitation friendliness and open space design must be given sufficient attention.

- 8. The durability of key building elements (rehabilitation friendliness) as well as the considerations given to eventual demolition requirements must be demonstrated. Moreover, the following documentation has to be prepared, submitted and absolutely complied with: safety concept in accordance with the standards of Municipal Department 68 (MA 68); energy concept including energy coefficients in accordance with the standards of MA 25; ecological construction concept providing for the use of construction materials in accordance with the standards of MA 23. A maintenance plan (use of rustproof steel for the façades, exchangeability of individual façade elements, etc.) must be submitted during the building permit procedure.
- 9. The construction works must proceed in keeping with the project schedule and need to be accompanied by independent quality control monitoring. This includes the drawing-up of a works schedule with environmentally friendly construction site logistics and the provision of the local population with information on construction phases that might cause disturbances; moreover, the name of a contact person to whom complaints may be addressed must also be communicated.
- 10. Before applying for a suitable land allocation decision, the draft project, including all documentation and expert opinions commissioned (3D model and project description on the Internet, project exhibition, hearing), must be publicly presented by the developer. Reservations voiced against the project must be recorded and responded to; this material must be included with the application for a suitable land allocation decision. After having been granted the requested decision, the project developer must establish a public informa-



The Ringturm high-rise in the 1<sup>st</sup> municipal district was not built as a high-rise but as a "special construction project"

tion point with consumer-friendly opening hours and knowledgeable staff at the location planned for the high-rise.

Project developers may finance the requirement of connection to the public transport system and road network as well as compliance with points 5 and 6 of the checklis on their own (public-private partnership). The requirements and standards with respect to quality, intensity of use and design must be defined and stipulated by the City of Vienna. All relevant modifications must be communicated to the City Council Committee for Urban Development, Traffic and Transport upon submission of the land allocation file for the project. Inter alia, additions to the building's cubature and gross floorspace will have to be documented, thereby juxtaposing the project with the current legal situation.