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Guide to Cost-Effective Outdoor Facilities

Analysis of residential building projects with cost-effective and use-intensive outdoor facilities

- Summary -

Cost savings cannot only be realised in building costs but also from other cost items of the total cost of a building.

This study considers the factors of outdoor facility costs in multi-storey residential buildings for the following project properties:

- 3- to 4-storey buildings,
- from 20 to 125 flats,
- with 1500 m² up to appr. 8000 m² of outdoor area,
- in inner-city and fringe locations,
- in no-hill country,

Cost savings for outdoor facilities are possible by

- the selection of species of shrubs and trees suitable for the location,
- the design of the landscaped areas to reduce the amount of maintenance and tending,
- renting out gardens to tenants who maintain and tend these areas,
- the coordination of the utility supply work of all buildings,
- the common organisation of supply and disposal activities,
- reducing property-related development work (paths, access road, car parks),
- restricting the extent of soil sealing by paths and car parks,
- allowing rain to enter the soil directly instead of introducing it in the sewer.

The cost saving potential especially on technical equipment is often underrated. Co-ordination, shared installation ducts/lines and the use of up-to-date installation methods help save substantial cost. For example, according to a study undertaken by Deutscher Verein

des Gas- und Wasserfaches (German Society of Gas and Water Businesses - DVGW), approximately 37 % of the cost of connecting one building to the utility supplies can be saved.

The average costs in multi-storey buildings are the following for

- outdoor facilities (KG 500) appr. 170,00 DM/m² living space,
- outdoor areas (KG 510, 520, 530, 550) appr. 130,00 DM/m² outdoor area, and
- the cost of tending the outdoor areas of appr. 4.00 to 6,00 DM/m² outdoor area.

The results of opinion polls (by empirica, residential society of the city of Nuremberg, and others) show that the degree of living environment design is rated highly by all groups of users (children, families, the elderly, persons in and out of job) on the scale of living satisfaction.

Therefore, creativity and perceptiveness are required to provide the most appropriate design of the living environment. More attention should be attached to the interfaces between public space (streets, lanes) and private, semi-public areas (building entrance areas, "playing at the doorstep").

If the design of the interface between the public open outdoor facilities and the semi-public areas in the residential precincts can be improved, this will add significantly to the design of the living environment as a whole.

Excessive demands on outdoor facilities of large residential areas in the past were partly also a result of the dwindling availability of urban open space on account of the low level of public spending.

The paucity of money spent on outdoor facilities and public outdoor spaces can be compensated by the use of robust standards in outdoor area design, duties taken over by tenants in the immediate area of their flats, intelligent open space management, linking public and semi-public areas and the application of innovative approaches in technical equipment.