

## WP 3 Urban Development

# Case Study Berlin

## Integrated Urban Development Planning in two Neighbourhoods in Berlin-Lichtenberg - A Retrospective Evaluation with Focus on Energy Efficiency

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|  
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Parts 1 + 2

## 1 Introduction

### 1.1 Case Study Berlin - Contribution to Urb.Energy

The "Case Study Berlin" is the contribution of the Berlin partner of the project Urb.Energy. Urb.Energy is a European transnational cooperation project part-financed by the European Union within the framework of the Baltic Sea Region Programme 2007-2013. The project Urb.Energy started in January 2009 and shall be finalised by spring 2012. The project combines the approach of energy-efficient refurbishment of residential buildings with integrated urban development concepts (IUDCs), the modernisation of the energy supply infrastructure, the revaluation of the residential environment and the identification of innovative financing instruments.

Work in the project is structured - as regards content - in three work packages that reflect the above topics:

Work package 3: Integrated Urban Development - Improving the Quality of Life

Work package 4: Energy Efficient Rehabilitation - Improvement of Buildings and Energy Supply Infrastructure

Work package 5: Setting up Financial Instruments - Improved Affordability of Investments

The Case Study Berlin is part of work package 3 (WP 3). The author of the Case Study Berlin, Planergemeinschaft, was contracted by the

- project partner "Center of Competence for Major Housing Estates".

Associated partners of the Case Study Berlin are:

- Senate Department for Urban Development Berlin, Senatsverwaltung für Stadtentwicklung Berlin,
- District of Lichtenberg, Berlin,
- municipal housing company HOWOGE Wohnungsbaugesellschaft mbH.

### 1.2 Objective and Structure of Case Study Berlin

The "Case Study Berlin" deals with IUDCs that were realised during the last 20 years in Berlin. Since the early 1990ies integrated urban development planning is being executed in the case study area "Frankfurter Allee Süd and Kaskelkiez". In numerous planning processes the urban development of the area has been steered. EE-measures (energy-efficient improvement of buildings and supply structure) by public and private owners are an integral part of integrated development plans.

The Case Study Berlin provides general information and analysis on the function, contents and experiences of IUDCs in Berlin as well as a detailed case study about a selected area in Berlin.

The Case Study Berlin comprises four parts of which parts 1-3 reflect three main steps of integrated urban development planning. Part 4 will be a documentation of what was realised in the case study area until today, an evaluation of the planning process and the today's implementation status.

Part 1: Elements of sustainable integrated urban development,  
Situation of the area in the early 1990ies

Part 2: Evaluation of the situation in the early 1990ies including the needs for action that were identified

Part 3: Documentation of relevant discussions regarding the alternatives of action,  
Documentation of integrated urban development concepts including financing concepts

Part 4: Documentation of what was realised in the case study area until today,  
Evaluation of the planning process and implementation status

These parts and steps are being retraced at the example ("case") of a selected area in Berlin. The area is called "Frankfurter Allee Süd and Kaskelkiez".

The idea of the case study is to exchange experiences and know-how gained with the case study and further examples in Berlin. It shall contribute to the overall aim of the project to further develop the strategy of integrated urban development, especially regarding energy efficiency. The Case Study Berlin shall demonstrate successful integrated urban development approaches and solutions to implement EU energy/climate measures and shall elaborate a critical evaluation on retrospective measures and plans. Especially the new member states shall be supported by evaluating an example that traces back to a development that had been started in Berlin in the early 1990ies under comparable and similar problems and conditions the new member states face today.

### 1.3 General Planning Principles in Germany and Berlin

Already in the early nineties (as so today) a comprehensive planning system exists in Berlin that is composed of

- legally binding (formal) instruments (Land Use Plan = Flächennutzungsplan and Local Development Plan = Bebauungsplan) and
- non legally binding (informal) instruments (integrated development plans on various scale levels).

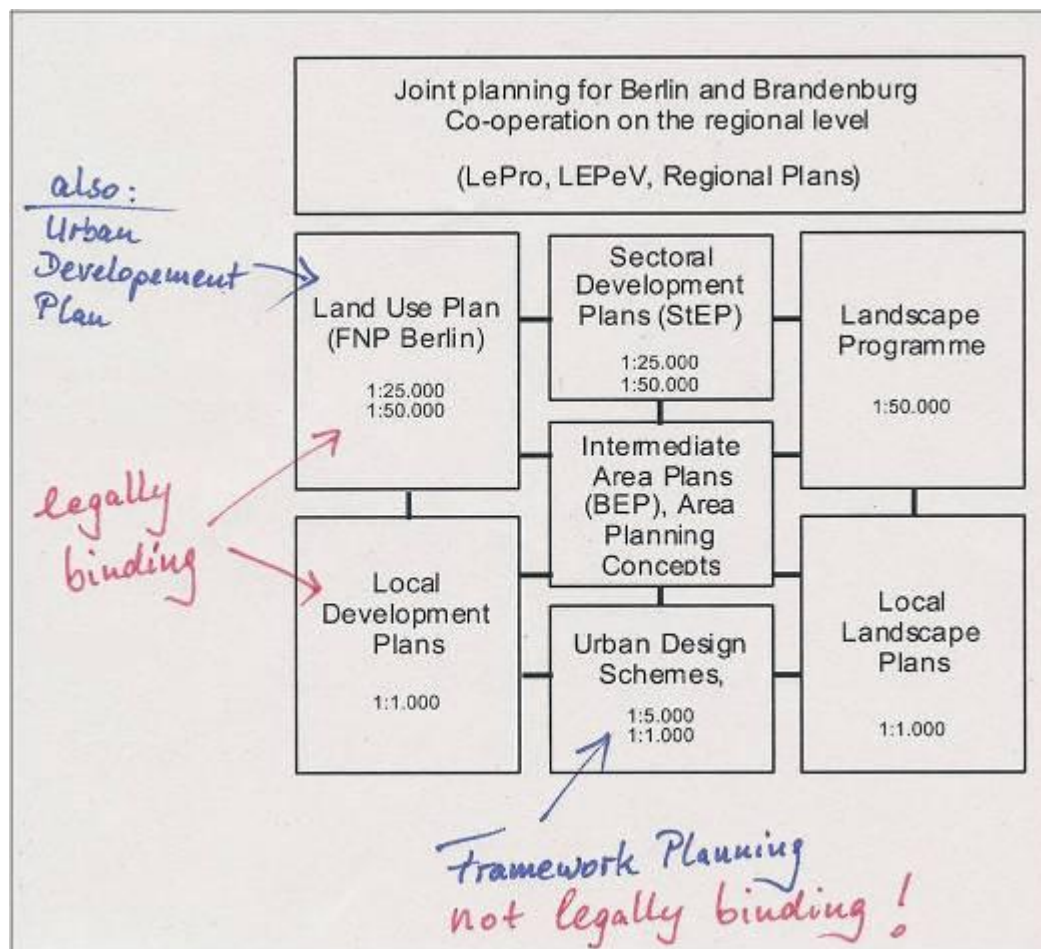


Fig. 1: Overview of the Berlin planning system

Under the German Federal Building Code urban planning is among the tasks of self-government incumbent upon cities and municipalities. They are required under the Federal Building Code to take responsibility for the preparation of urban land-use plans "as soon as, and to the extent that these are required for urban development and regional policy planning". The decision as to the point at which the preparation of an urban land-use plan is "required" is left largely to the municipality itself and its own discretion on planning matters.

As introduced above it is distinguished between formal and informal plans in German planning policy. The formal plans are the

- Land Use Plan and
- Local Development Plan.

#### Land Use Plan

In the German planning system, the Land Use Plan (FNP) shows in general terms the proposed distribution of land uses, as conforming to the strategic objectives of city development. It applies to the whole area of the city, over an assumed time span of about



15 years. As an outline development plan it provides the framework for more detailed plans of a formal or informal nature.

#### Local Development Plan

Local Development Plans are legally binding development plans. They are prepared on a base map including exact site boundaries and indicate proposed land uses, permitted densities and the areas to be used for building and other purposes or reserved for public access.

#### Informal Plans

In addition to the formal plans and other statutes provided for in the Federal Building Code a number of unregulated urban development plans of various types are to be found in urban development practice. The names given to such plans vary from municipality to municipality. Depending on the particular task which the plan is called on to perform they may be termed (integrated) development plans or framework plans. Their common nature is the integrative approach to planning. They tend to be prepared in advance or complement of the formal plans for which they also provide the content in substantive terms. It aims at a flexible way in order to accomplish results in a faster way than within a formal planning process. Informal plans cannot create building rights; however, in a number of areas, the informal plans adopted by the municipality may be drawn on within the formal decision-making process for help.

Integrated urban development planning is a (short-time) working tool in order to discuss, weigh out and decide about development actions. Especially matters of stakeholder coordination and harmonising interests can be tackled through integrated development plans. Also public participation processes can be implemented according to the actors' needs.

## 1.4 Energy Strategies in Berlin

Below the most important energy strategies of Berlin are presented. Not only the sectoral energy strategies will be introduced but also comprehensive strategies that aim at climate protection, as of which energy efficiency is only one element.

#### "Lokale Agenda 21 Berlin" (Local Agenda 21 Berlin)

In 2006 the Berlin House of Representatives adopted the Local Agenda 21 Berlin serving as a rule for sustainable political action in the fields of economy, ecology and social affairs. The Local Agenda 21 Berlin contains seven fields of action for sustainable development: (1) social live, (2) civic commitment, (3) traffic and mobility, (4) interdependence of city and hinterland, (5) education, (6) economy and working and (7) energy and climate protection.

The reduction of CO<sub>2</sub> emissions by 40 % until 2020 compared to 1992 and by 50 % until 2030 has been fixed in the Local Agenda 21. Further general objectives are described, e.g. the increase of the ratio of renewable energies up to 20 % of the total primary energy supply in

2030. In the list of measures to be taken the stepwise energy-efficient refurbishment of Berlin's housing stock is stated. The pioneering task is attached to the municipal housing companies. Additional energy savings potential has to be opened up by evaluation of accompanying benchmarking and surveys.

#### "Berliner Landesenergieprogramm (LEP) 2006-2010" (Berlin Energy Programme 2006-2010)

As a continuation of the former climate concept, the Programme determines climate-related objectives and instruments until 2010. The main goal is the reduction of energy consumption and hence the emission of CO<sub>2</sub> by 25 % in 2010 (already achieved in 2007, mainly through external effects). Therefore the fields of (1) public relations, (2) building and housing, (3) public facilities, (4) industry and commerce, (5) traffic, (6) energy service providers, security of energy supply and energy prices, (7) use of solar energy and other renewable energies and (8) waste industry play an important role for the achievement of this aim. The superior guideline is carried by subordinate objectives, relating to reduction of energy consumption, taking advantage of safeguarding and generating employment through targeted investments, doubling the ratio of renewable energies, (particularly by increasing solar heat use), prevention of increase of traffic-related energy consumption, involvement of civic and economic actors as well as support of research and innovations. Subordinate objectives in turn are specified by concrete measures, e.g. implementation of German Energy Savings Ordinance - Energieeinsparverordnung (EnEV), creating energetic transparency in residential buildings, development of integrated energy concepts for constructional measures, concluding an energy protection agreement with the housing industry, installation of a CO<sub>2</sub> reduction monitoring for the building stock, solar refurbishment of residential buildings or demonstration and promotion of pilot projects. Furthermore detailed aims for energy-efficient refurbishment are formulated, e.g. concerning energy demand of space heating.

#### "Berliner Energiekonzept (ENK) 2020" (Berlin Energy Concept 2020)

The planned ENK serves as integrated basis for the future update of LEP comprising all fields relevant to climate. Basic principle of the concept is the reduction of green house gas by 40 % until 2020 compared to 1992. Single measures are determined through scenarios and then they are integrated in the concept. Therefore trans-sectoral climatic parameters are considered in the fields of energy technology and research, private households and buildings, settlement pattern and urban development, public facilities, manufacturing and industry, traffic, renewable energies and energy industry. In the field of buildings it becomes apparent that in future increasing efforts have to be made to tap the full CO<sub>2</sub>-saving potential of 10 % between 2005 and 2020 by energy-efficient refurbishment, particularly of the housing stock constructed before 1979.

#### Climate Protection Agreements

Currently Berlin has concluded climate protection agreements with eleven public enterprises including all six municipal housing companies. Contracting parties commit themselves to working towards an efficient, an ecological and an economical use of energy. Examples of commitments concerning the residential housing stock are the reduction of energy and hot water consumption by 30 % until 2010 compared to 1990, the

reduction of green house gas by 10 % until 2010 compared to 2006 or specific consulting services for housing companies. Commitments also consider particular local social, economic and ecological conditions of the housing stocks managed by the housing companies as well as the current economic prospects of the housing companies themselves. Assistance and accommodation have been concluded concerning support programmes or legal and fiscal affairs. Problematic individual cases and other constraints can and should be pointed out to consensually agree upon specific solutions.

#### Draft for "Stadtentwicklungsplan (StEP) Klima" (Urban Development Plan 'Climate')

StEP Klima elaborates strategies of action on the basis of a study about the impact of climate change on urban structures and environment. It determines spatial and climatic framework conditions by taking account of existing climate-relevant policies. A detailed spatial focus lays on consequences of climate change and on identification of affected areas. It also takes surveys of local age structure into consideration. Scheduled approaches for model areas in the city are defined.

#### "Ökologische Planungskriterien für Wettbewerbe" (Ecological Criteria for architectural Competitions)

Ecological Criteria for architectural Competitions were published in 2007 by the Senate Department for Urban Development Berlin. It contains several provisions concerning sustainability for planning and design of construction projects sent in for a competition. Entries should follow the principle of

- preserving the environment and natural resources,
- achieving a maximum degree of social and environmental compatibility,
- realising and ensuring respectively sound living and working conditions on a sustained basis,
- creating energy-efficient buildings.

An approximate ecological overall scheme is expected to be presented. Furthermore costs of routine maintenance and long-term upkeep as well as operating costs of planned installations are to be considered. Monetary components and non-monetary demands placed by the public builder on quality, design and sustainability are to be taken into account.

Additional specific objectives are formulated under the following headlines:

- Urban Development Location and Surrounding Area of a Building,
- Buildings and Organisation of Floor Plans and
- Construction, Development and Technical Systems.

#### Memberships and Cooperation

Berlin is member of various alliances and cooperation committed to climate protection and sustainable development, for example:

- Berlin is founding member of the Climate Alliance (Klimabündnis), in which the 1.500 member cities and municipalities aim for the reduction of greenhouse emissions, and specifically in the protection of the rainforest and the indigenous peoples.
- Berlin is member of "ICLEI - Local Governments for Sustainability", that is an international association of local governments as well as national and regional local government organisations that have made a commitment to sustainable development.
- Berlin is also member of The World Mayors Council on Climate Change that is an alliance of committed local government leaders advocating an enhanced recognition and involvement of Mayors in multilateral efforts addressing climate change and related issues of global sustainability.
- Berlin is member of "C40 Climate Leadership Group", that is a group of the world's largest cities committed to tackling climate change.

"Berliner Energieagentur" (Berlin Energy Agency)

Berliner Energieagentur develops and implements integrated concepts for the efficient use of energy. By detecting energy saving and efficiency potentials for industrial and commercial customers as well as for the public sector Energieagentur contributes to climate protection and cost reduction. It is organised as Public Private Partnership powered by GASAG Berliner Gaswerke Aktiengesellschaft, Vattenfall Europe Wärme AG, KfW Bankengruppe and Land Berlin.

## 1.5 Elements of Sustainable Integrated Urban Development

Sustainable integrated urban development requires the integrative consideration of preferably all-embracing elements which shape the spatial, social, economic, and ecological environment. The ambition to include "preferably all-embracing" elements is a major challenge. During the past decades a set of elements were developed for integrated urban development planning in order to put a practical structure to planning processes. The establishment of the planning instrument of Bereichsentwicklungsplanung (BEP) in the 1980ies can be defined as the systematic start of IUDCs in Berlin-West. Bereichsentwicklungsplanung is a special informal and integrated planning instrument special to Berlin. It is an instrument to elaborate integrated concepts for large areas within a district, mostly for several neighbourhoods together and sometimes for the whole district-area.

Since the 1980ies a recurring set of elements is being used in order to structure integrated planning processes. The main features of this structure were consistent during the past decades, but at the same time taking into account that modifications and emphases were set according to the specific planning situation. The set of elements reflects strongly the miscellaneous duties of the different municipal planning authorities in Germany, which are organised in sectors. Thus, one challenge of integrated urban development planning is the requirement of also including the integration and harmonisation of issues within the different authorities, which are involved in planning processes.

The following chart shows the elements that were the base set of elements of integrated urban development during the past 20 years in the case study area. This set of elements was used by all authors of the planning documents of the past 20 years. The set of different elements comprises a good and practical foundation for embracing the dimensions of spatial, social, economic and ecological urban development. Thus, these elements were used to structure the different chapters of the case study.

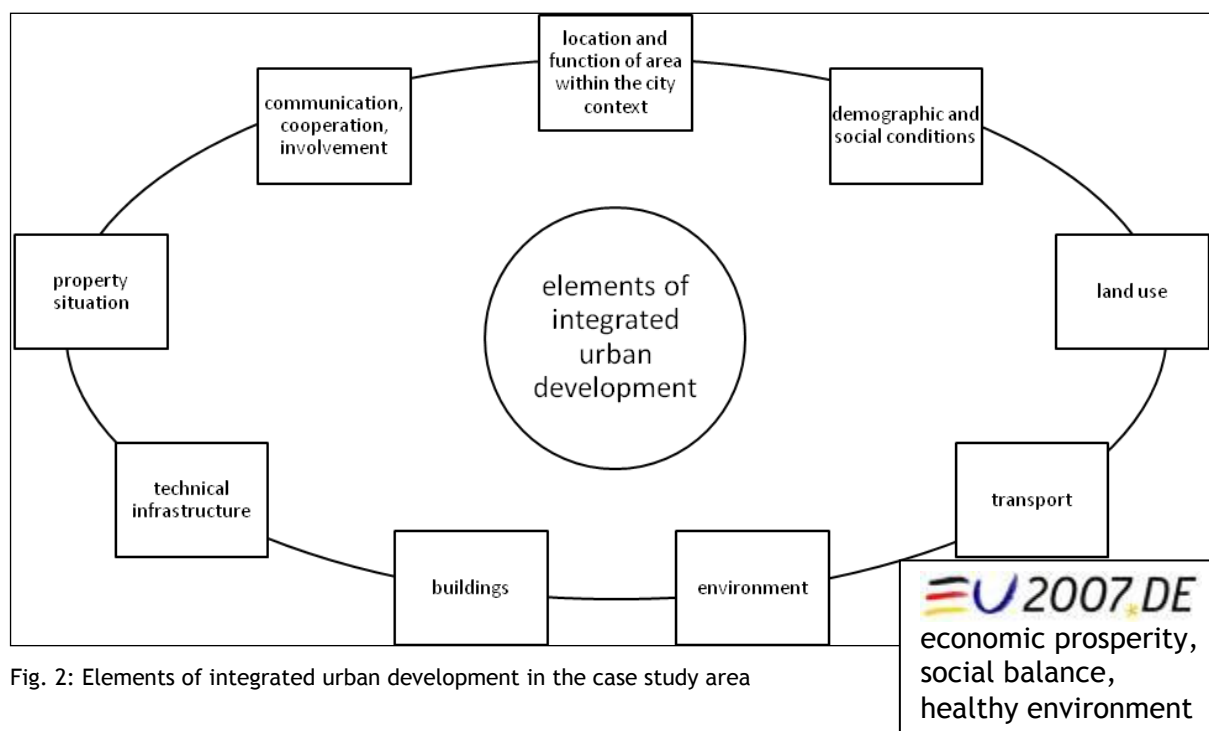


Fig. 2: Elements of integrated urban development in the case study area

In 2007 the EU-member states' ministers responsible for urban development agreed upon common principles and strategies for urban development policies. In the Leipzig Charter on Sustainable European Cities they recommended to make greater use of integrated urban development policy approaches. It was stated that all dimensions of sustainable development should be considered, while aiming at economic prosperity, social balance and a healthy environment.<sup>1</sup> The following strategies of action - embedded in an integrated urban development policy - were named to be of crucial importance:

- creating and ensuring high-quality of public space,
- modernising infrastructure networks and improving energy efficiency,
- proactive innovation and educational policies.<sup>2</sup>

<sup>1</sup> [http://www.eu2007.de/en/News/download\\_docs/Mai/0524-AN/075DokumentLeipzigCharta.pdf](http://www.eu2007.de/en/News/download_docs/Mai/0524-AN/075DokumentLeipzigCharta.pdf), p.1

<sup>2</sup> *Ibid.*, pp. 3 and 4

## 2 Area Frankfurter Allee Süd and Kaskelkiez - Situation in the Early 1990ies

### 2.1 Size, Location and Function of Area within the City Context

The area Frankfurter Allee Süd and Kaskelkiez is located at the Eastern inner city periphery in the district of "Lichtenberg". It covers 66,2 hectares. Within the area there are two neighbourhoods which differ in urban form: The northern neighbourhood Frankfurter Allee Süd is a large housing estate with prefabricated buildings, the southern neighbourhood Kaskelkiez is a mixed use historic area which was developed in the second half of the 19th century. Frankfurter Allee Süd is larger in size, it covers 44,5 hectares, whereas Kaskelkiez covers 21,7 hectares.

The function of the area within the city is mainly residential. This especially applies to Frankfurter Allee Süd that is a dormitory quarter. Kaskelkiez is a mixed use area, but still holds a large proportion of residential use.

Taking a look at the map one can clearly see that there are morphological structures of industrial zones south and east of Frankfurter Allee Süd and west of Kaskelkiez. To one extent one can say that Frankfurter Allee Süd and also partly Kaskelkiez are the residential neighbourhoods for people who worked for industrial and service companies in the adjacent quarters until the economic restructuring of the early nineties. But the residents of the area also worked in other regions of the city, for example the large industrial zone between Hohenschönhausen and Marzahn, that is located about five kilometres north east of the study area. Residents of the area also worked in all other economic sectors besides the industrial sector. This especially applies to the large housing estate of Frankfurter Allee Süd, where the educational background of the residents varied to a high degree.

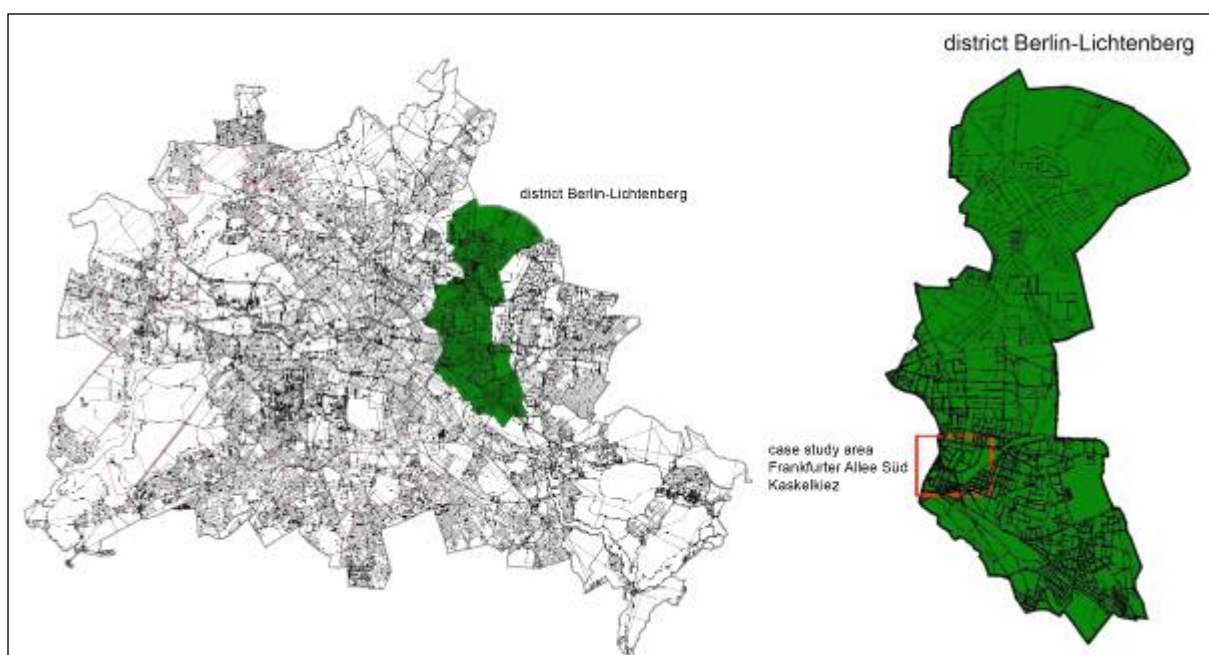


Fig. 3: The case study area within the city context

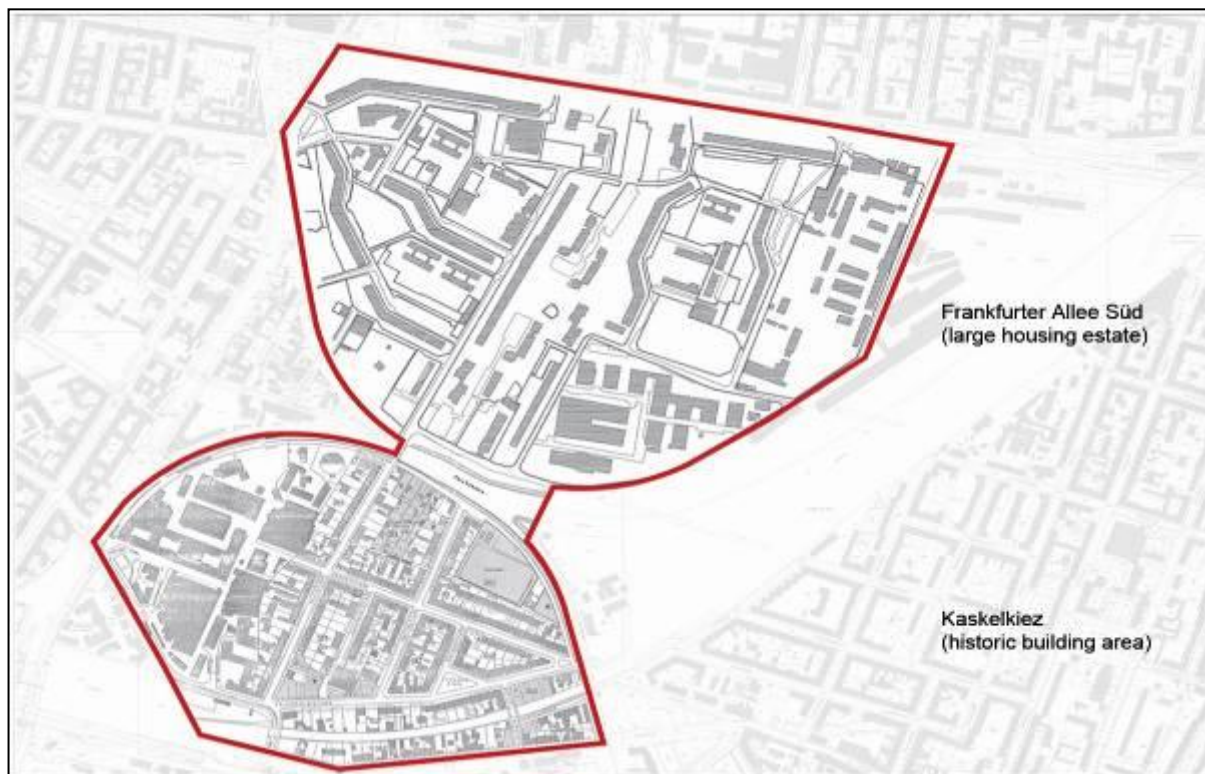


Fig. 4: The case study area. North: the large housing estate "Frankfurter Allee Süd", south: the historic area "Kaskelkiez", revised by Planergemeinschaft Dubach, Kohlbrenner

## 2.2 Demographic and Social Data (Population and Density Data)

About 13.700 people live in the study area in 1992/93 (data Frankfurter Allee Süd: 1993; data Kaskelkiez: 1992), 11.232 in the neighbourhood of Frankfurter Allee Süd and 2.506 in Kaskelkiez. The ratio of residents per hectare is twice as high in Frankfurter Allee Süd as in Kaskelkiez, namely 252 persons per hectare (Frankfurter Allee Süd) towards 113 persons per hectare (Kaskelkiez).

The age structure in both neighbourhoods differed regarding young persons aged less than 15. In the year of 1992/93 in Kaskelkiez 26 % of the population is aged under 15 (age 0-6: 12,9 % - that is 6 percent points above district average), whereas in the large housing estate 16 % of the population is aged 14 and younger. In Frankfurter Allee Süd the age group 15-64 is represented with 80 % of the population, in Kaskelkiez with 70 % (age 18-45: 58,1 % - that is very high, namely 18,1 percent points above district average). In both neighbourhoods the percentage of persons aged 65 and older is relatively low, namely 4 %.

In Kaskelkiez urban planners worked with more detailed data concerning age groups. Here one divided the age groups above into smaller entities. With the help of more detailed data there was a much better basis for social infrastructure planning and forecasts.

Also the data basis for socio-economic analyses of Kaskelkiez was much more explored than of Frankfurter Allee Süd. All socio-economic data for Kaskelkiez indicates that the socio-economic structure of the historic neighbourhood Kaskelkiez is lower than in the large housing area in 1992. This fact is mainly due to the poor housing conditions in Kaskelkiez (compare chapter 2.6).

In the year 1992 15 % of the households are rated under minimum living wage in Kaskelkiez. The unemployment rate is 19,2 %, the average monthly income per household is 2.150,- DM. The household structure shows an untypically high representation of households with children: 41 % of the households are families with children, 8 % are single parent households with children, 23 % are couples without children, 17 % are single households, 4 % are pensioner couples, and 4 % are pensioner singles.

In both neighbourhoods the percentage of foreign persons was that low that this criterion was not mentioned in the data sheets of the survey studies. In 1990 the percentage of foreign persons in the whole district of Berlin-Lichtenberg (172.277 inhabitants) is lower than 4 %. In comparison to that the average rate in the whole city of Berlin is 9,2 % (1990), even though every district of the former eastern part of Berlin has such a low or even a lower rate than Lichtenberg has.

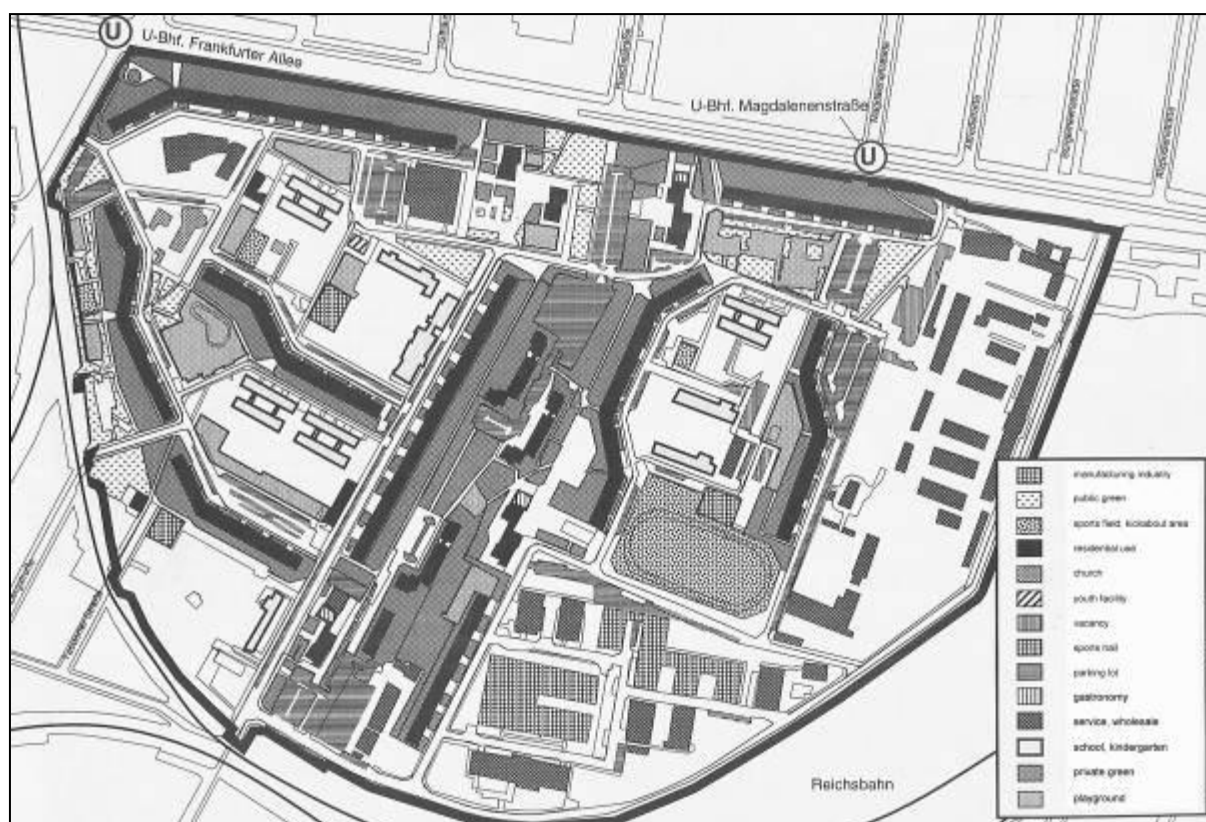


Fig. 5: Land use structure in Frankfurter Allee Süd in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner



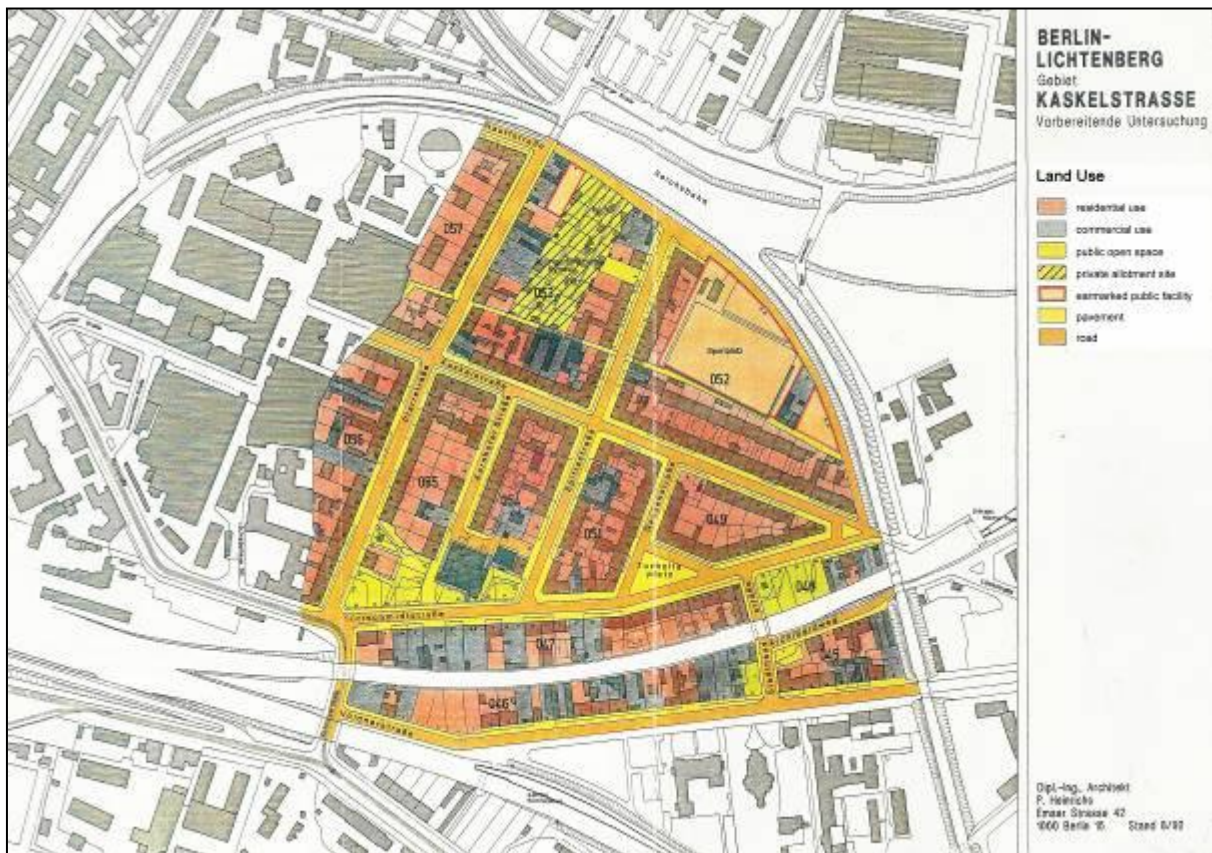


Fig. 6: Land use structure in Kaskelkiez in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner

## 2.3 Land Use Structure and Centre Structure

### 2.3.1 Balances of Floor Spaces

In the early 1990ies urban planners worked with different types of data for Frankfurter Allee Süd than for Kaskelkiez concerning the balances of floor space. This was mainly due to the distinctive urban structures: on the one hand a large housing estate that was developed over a short period of time, on the other hand a historic district that "grew" over more than 120 years (since 1872).

In Frankfurter Allee Süd about 24 % of the neighbourhood is occupied with buildings (10,7 ha of 44,5 ha). About 31,2 % is floor space for greenery. The rest of the area is floor space for other open space and traffic.

In Kaskelkiez 25 % of the overall floor space is used for traffic (streets, footpaths, railway tracks). The remaining space was structured as follows: 61 % of the (remaining) floor space is used as "general residential area" (term of federal building code for predominantly housing) or "mixed use area" (housing and non-disruptive businesses). 19 % of the space is used predominantly with commercial and industrial use, 9 % with social infrastructure.



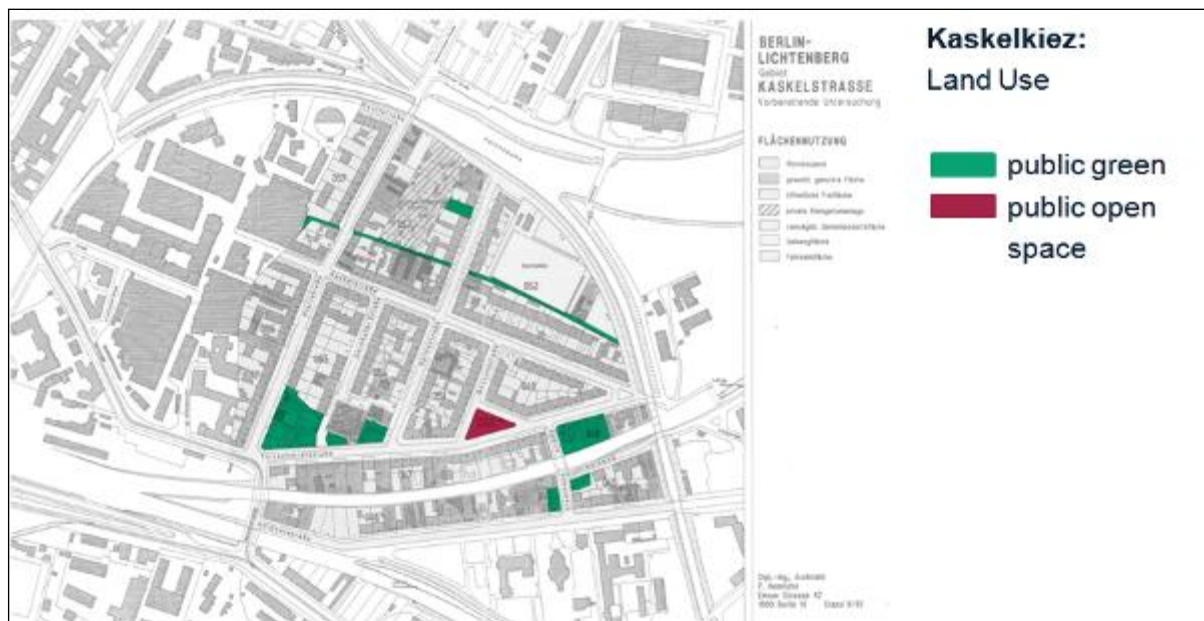


Fig. 8: Distribution of public green and public open space in Kaskelkiez in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner

Having a closer look at the green space of Frankfurter Allee Süd one can distinguish between two functions of green space usage. One function is green space in close connection to residential buildings (wohnungsnahes Grün), the other function is green space for the neighbourhood (siedlungsnahes Grün). In Berlin these two types of functions are reflected in two different benchmarks: The benchmark for the first function is 6 sqm per resident, the one for the second function is 7 sqm per resident. Furthermore the green spaces need to meet the following criteria: green spaces in close connection to residential buildings need to be reached by foot within a distance of 500 meters and need to meet a size of at least 0,5 ha. Green spaces for the neighbourhood need to meet a size of at least 10 ha and are to be reached by foot within a distance of one kilometre. Analysing the green space regarding these benchmarks the situation in 1992 is as follows: There are 12 sqm per resident of green space in close connection to the residential buildings per resident, but no public green space that is dedicated for leisure of the neighbourhood.

Also the floor space for playgrounds was surveyed. There are 14 public playgrounds with 17.444 sqm and 11 private playgrounds with 5.818 sqm in 1992. Comparing these figures to the benchmark 1 sqm per resident for public playground, there was a plus of more than 6.000 sqm of public playgrounds.

Compared to Frankfurter Allee Süd very few public green and public open spaces existed in Kaskelkiez. There were only 3,5 sqm per resident for green space in close connection to residential buildings. Comparing this with the benchmark there was a deficit of 6.300 sqm. In terms of green space for the neighbourhood the same situation like in Frankfurter Allee Süd existed: There was no space for this function. Also the floor space for public playgrounds was insufficient. There were only 795 sqm of playgrounds for Kaskelkiez. This meant a deficit of more than 1.700 sqm in the neighbourhood.

On top of that the private open spaces of the residential buildings were in bad condition and offered little use for leisure or vegetation. Almost all courtyards were paved and used for waste containers and parking.

### 2.3.3 Social Infrastructure

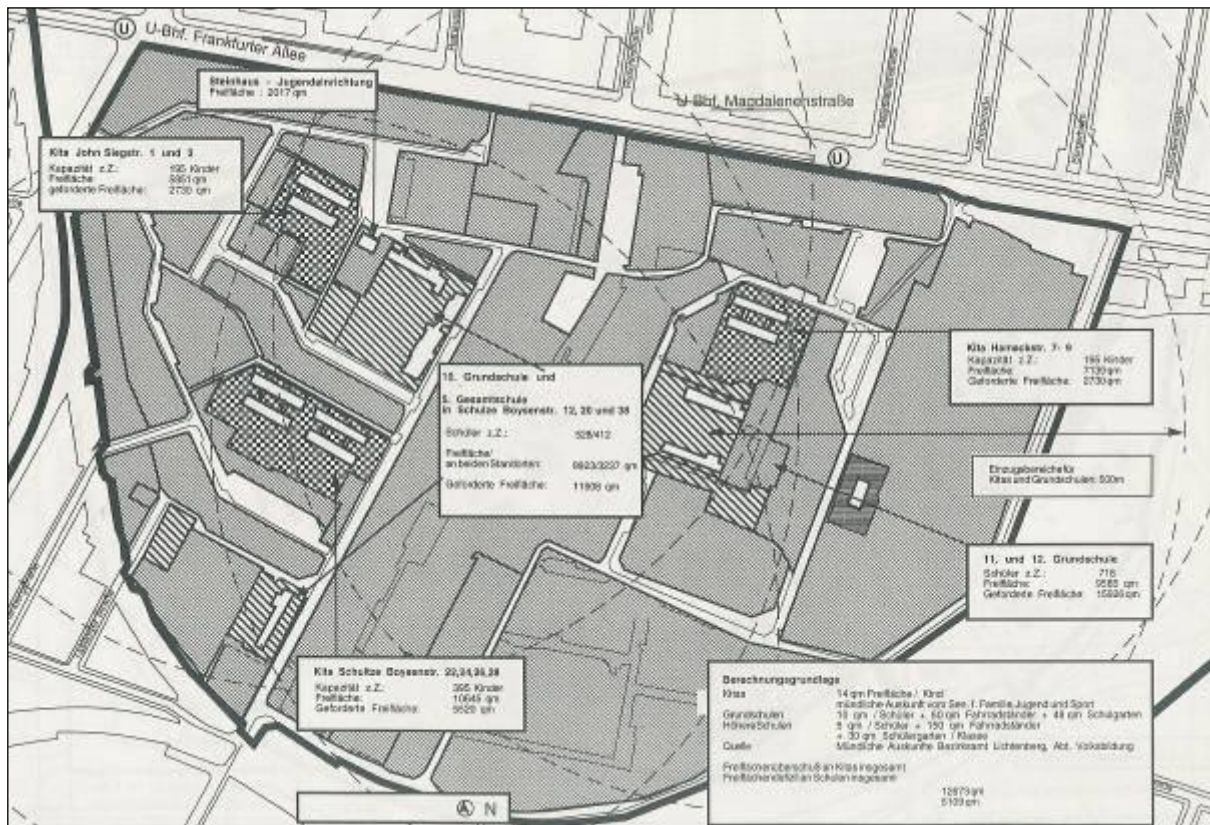


Fig. 9: Uses of social infrastructure in Frankfurter Allee Süd in 1992



Fig. 10: Uses of social infrastructure in Kaskelkiez in 1992

The following elements were surveyed:

- types of social infrastructure,
- the properties and ownership of the social infrastructure facilities,
- the providers of the facilities (public or free non-profit),
- the number of users per facilities,
- the size of the facilities (property and building),
- the catchment areas,
- the number and use of facilities in relation to benchmarks and
- the state of repair of the facilities.

In the map for Frankfurter Allee Süd a lot of detailed information concerning the above survey elements is shown. The following text only gives the main information.

In Frankfurter Allee Süd there are four kindergartens, four schools, one youth facility, and one cultural facility (Studio Bildende Kunst) in the year of 1992. No facility for elderly care exists.

The benchmarks concerning spaces for children in kindergartens and schools are met. But the benchmarks in terms of floor space for buildings and open space in schools and kindergartens does not meet the new benchmarks of the adopted school system from Berlin-West. The main deficits were analysed in terms of public space for schools. The benchmarks ask almost twice as much open space than exists. Also the benchmarks for youth facilities (128 places per 10.000 residents) are not fully met. The most obvious deficit refers to the lack of facilities for elderly care.

The map of Kaskelkiez shows that in 1992 only two small kindergartens (on the first floor of residential buildings) and one cultural facility (a small library) exist. Other facilities of social infrastructure are missing. Children went to the neighbouring schools in Frankfurter Allee Süd and Nöldnerstraße, Weitlingkiez.

### 2.3.4 Centre Structure



Fig. 11: The two neighbourhood centres in the case study area: a cluster of uses in Frankfurter Allee Süd and single central uses in some streets of Kaskelkiez in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner

In the neighbourhood of Frankfurter Allee Süd most of the central uses are located in the northern and north-western part of the neighbourhood. This is because northwest of the area an important public transport station ("Frankfurter Allee") is situated. The centre is

comprised of a small square with a supermarket, a church, a newly built small "shopping centre" (built 1991-92), a cultural facility, a youth club, a kindergarten and a school. Between these uses some shacks with very small retail businesses are scattered. In the southern part of the neighbourhood Frankfurter Allee Süd there are several wholesale stores and a provisional department store, which has moved into a former industrial building. The latter became vacant right after the wall came down, because the company could not continue to exist in the free market economy.

The central structure of Kaskelkiez is different from the structure of the large housing estate. Here single central uses are situated around a small square and in the centrally located streets. The uses are small stores, bars, a library, a pharmacy, a handicraft business, and a supermarket. Most of these uses already existed during GDR-times.

### 2.3.5 Commercial and Industrial Use

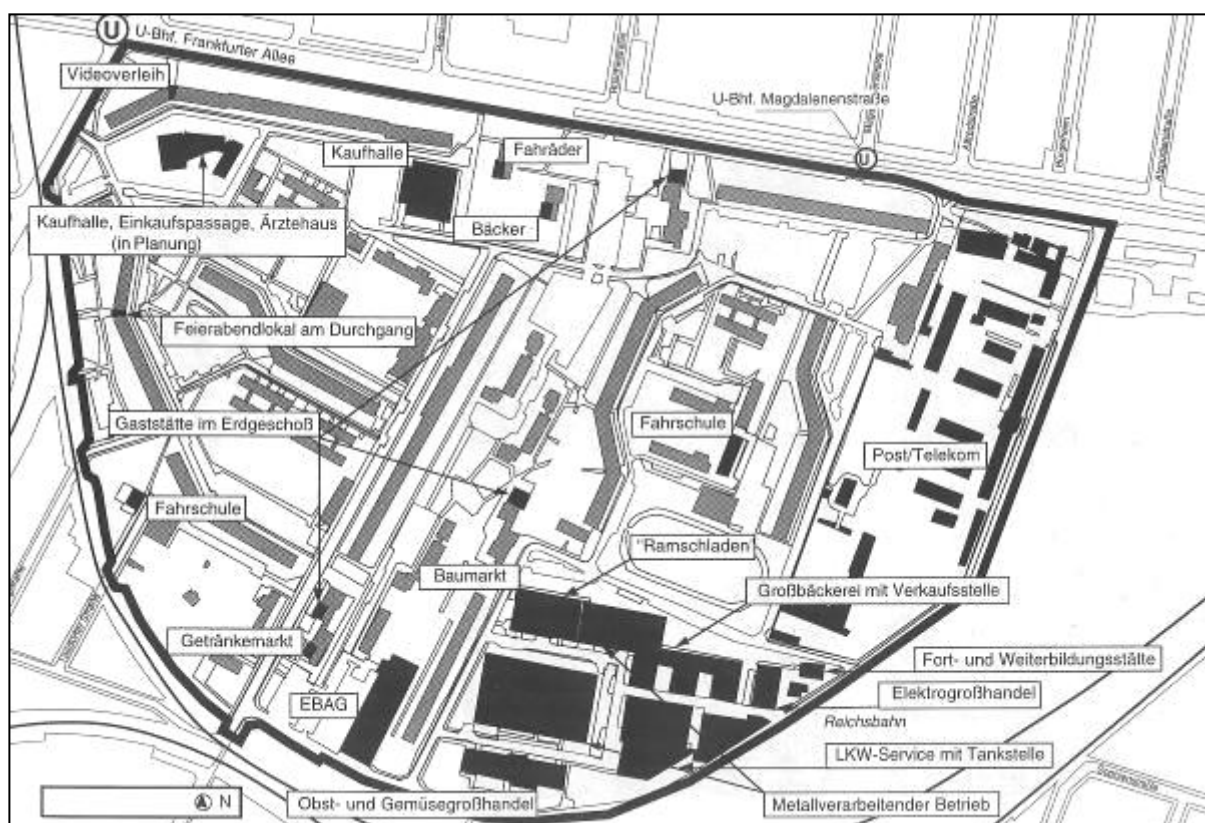


Fig. 12: Industrial and commercial use in Frankfurter Allee Süd in 1992

The urban physical structure of commercial and industrial use differs a lot between Frankfurter Allee Süd and Kaskelkiez.

Besides the supermarkets mentioned above there are just a few small commercial businesses distributed at the residential area of Frankfurter Allee Süd, such as a bike shop, a video rental shop or gastronomy. East and south of the residential buildings there is a

separate area with commercial and industrial business. At the south-eastern side there are a wholesale for electronic devices, a wholesale bakery with retail sale, a produce wholesale, a do-it-yourself store, a heavy goods vehicle service with petrol station, a junk shop and two metal working companies in the year of 1992. East of the residential building a large building complex was used for post and telecommunication.

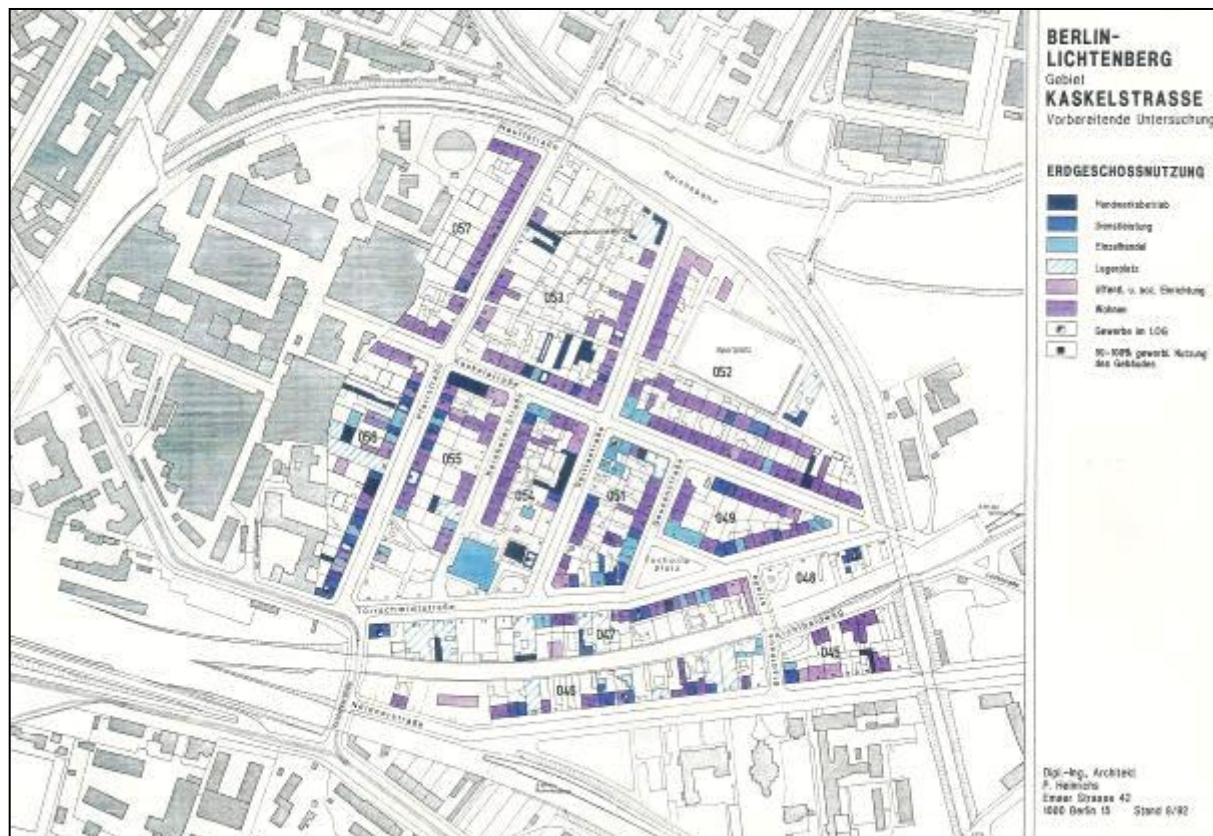


Fig. 13: Use of ground floors in Kaskelkiez in 1992

In Kaskelkiez some of the plots next to residential buildings were used for small commercial business such as car repairing and dealing, storing, coal dealing and crafting (light blue hatched plots). These uses took place on so called "garage plots", meaning that these plots were not built-up with steady buildings but with more provisional buildings such as shacks and garages. West of Kaskelkiez a large mostly vacant industrial zone existed in 1992. These are the factory premises of Knorr-Bremse, a large company that used to produce braking systems for rail vehicles and commercial vehicles here. Between 1960 and 1990 parts of the premises were also used by VEB Messelektronik Berlin, a company that used to produce measuring devices and telephones. In the course of internal restructuring the company moved in 1990.



## 2.4 Transport

### 2.4.1 Public Transport

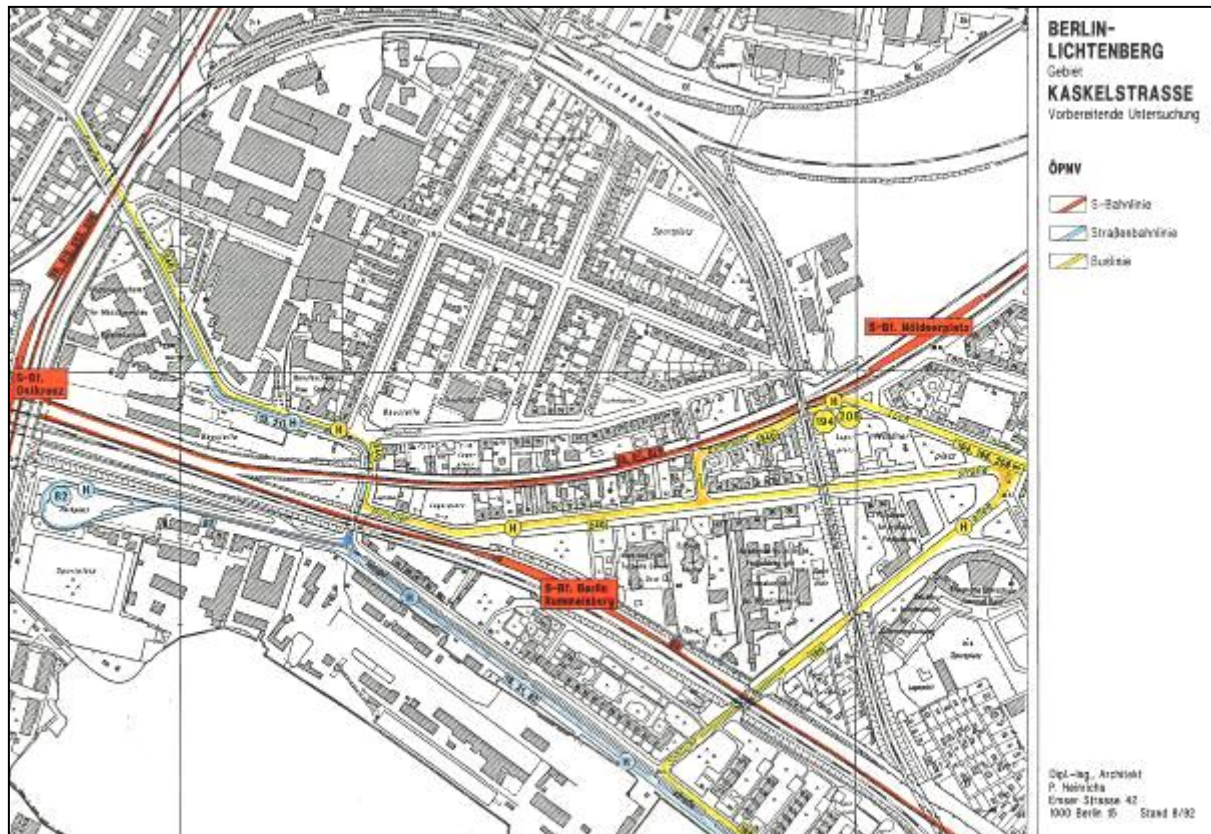


Fig. 14: Routes of S-Bahn (red), Tram (blue) and Busses (yellow) south of Kaskelkiez in 1992

There are a lot of different modes for public transport that connect the area to the rest of the city. Especially the connection through commuter railway system ("S-Bahn") is very good. Northwest of Frankfurter Allee Süd there is a large station for commuter railway and for underground ("U-Bahn") (S- and U-Bahn station "Frankfurter Allee"). Further U-Bahn stations are "Magdalenenstraße" at the northern edge of the area and "Lichtenberg" which is a large station (above S-and U-Bahn also long distance rail) that is located north-east of the area. South of Kaskelkiez there are the S-Bahn stations "Nöldnerplatz", "Rummelsburg" and "Ostkreuz" (from east to west). The latter is one of the most important connection stations of S-Bahn Berlin.

On top of that there are various tram lines and bus routes that supplement the rail system on the main roads surrounding the area.

## 2.4.2 Individual Transport

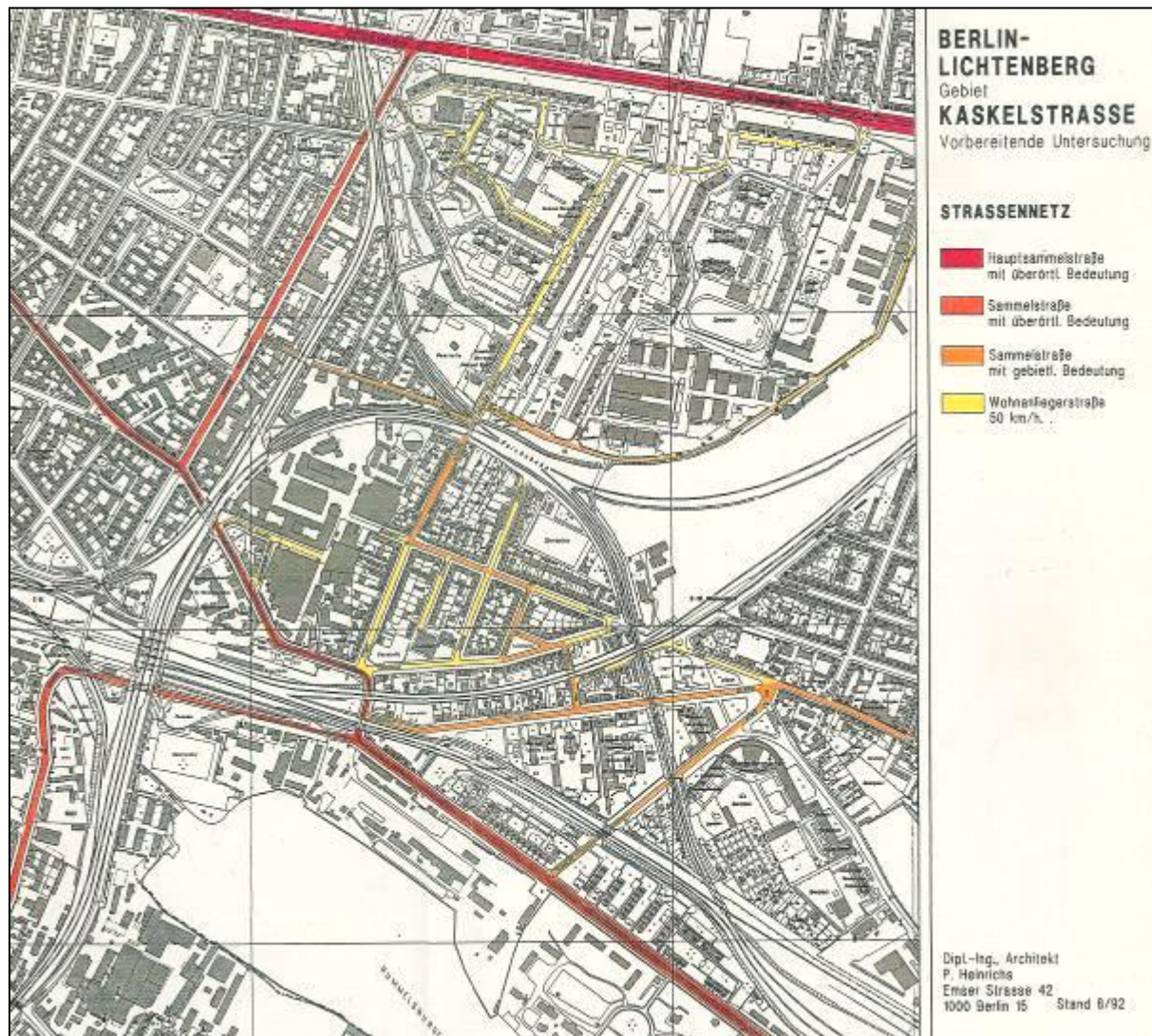


Fig. 15: Arterial roads, local distributor roads and residential streets in the case study area in 1992

The quarter is connected to transport via national highway (Bundesstraße) B1 (red: north of the area) and several main streets (dark orange and orange). Automobile travel time to the city centre of Alexanderplatz averages about 10 minutes.

The neighbourhood of Frankfurter Allee Süd is accessed from the north through Schulze-Boysen-Straße and Buchberger Straße, which connect the national highway Frankfurter Allee to Kaskelkiez. According to this fact this streets carry a high traffic density. In Kaskelkiez all streets (except Nöldnerstraße in the south) have local function. This fact results in incompatible transit traffic on several secret paths. 80 % of the streets are covered by a material called copper slag (Kupferschlacke) which is a very resistant material but which also leads to an increased number of accidents because of slippery. In the whole area there are no reduced speed zones (30 km/h), and no traffic calmed zones.

### 2.4.3 Parking

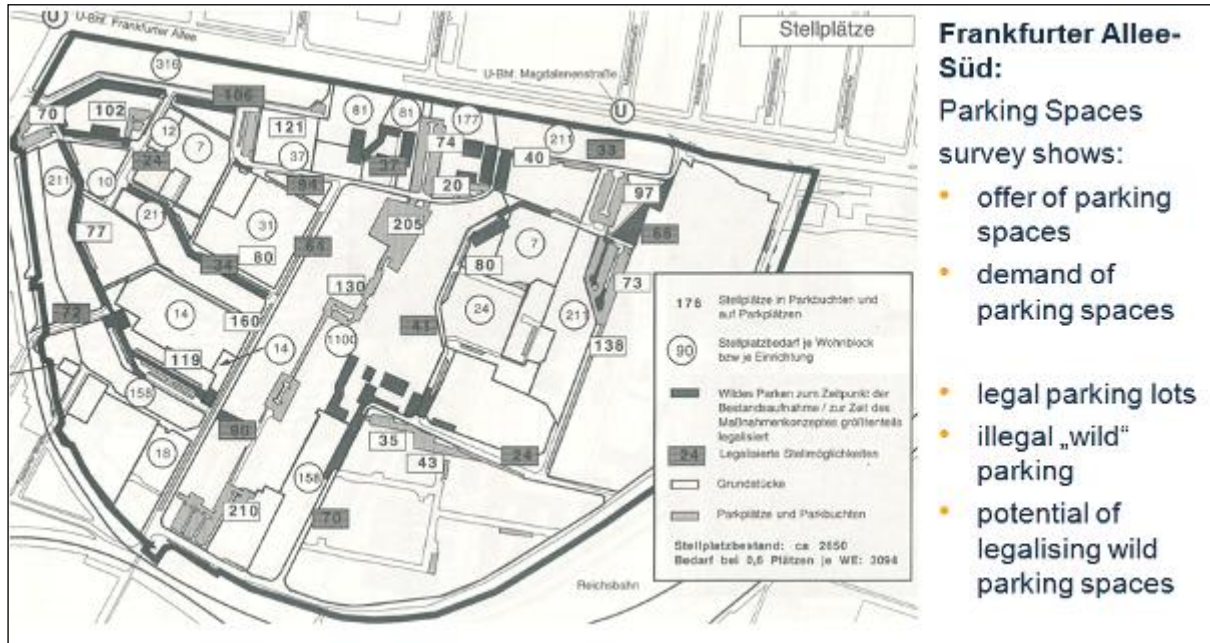


Fig. 16: Parking situation in Frankfurter Allee Süd in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner



Fig. 17-18: Parking in the streets and in the courtyards in Kaskelkiez (1992)

In the large housing estate a detailed survey of the parking situation had been conducted, because the parking "pressure" on the neighbourhood was sensed high. As the map shows the offer of parking spaces was counted.

These numbers were related to a calculated demand of parking spaces that was set by the benchmark of 0,6 spaces per residential unit. A difference was made between the legal parking spaces and the informal, so called "wild", parking spaces.

In Kaskelkiez no such detailed survey had been made. Here parking took place in the streets and in the courtyards and parking spaces were sufficient in number although a scarcity was forecasted for the future.

#### 2.4.4 Pedestrian and Cyclist Facilities

The overall situation for pedestrians within the neighbourhood of Frankfurter Allee Süd was better than in Kaskelkiez. In Frankfurter Allee Süd the sidewalks were in good condition and there existed a net of green paths between the residential buildings. However pedestrian crossing on Schulze-Boysenstraße was difficult and the foot connections to the adjacent neighbourhoods were insufficient ("tunnel" between Frankfurter Allee Süd and Kaskelkiez, no pedestrian paths to western and eastern neighbouring quarters).

In Kaskelkiez - due to the traditional street pattern - sidewalks exist in the streets. But the condition of these was bad, they were evaluated as threadbare.

The situation for cyclists was insufficient in the case study area. There were conflicts between car traffic and bicycles in the residential streets. Also the pavement material was dangerous.

## 2.5 Environmental Conditions

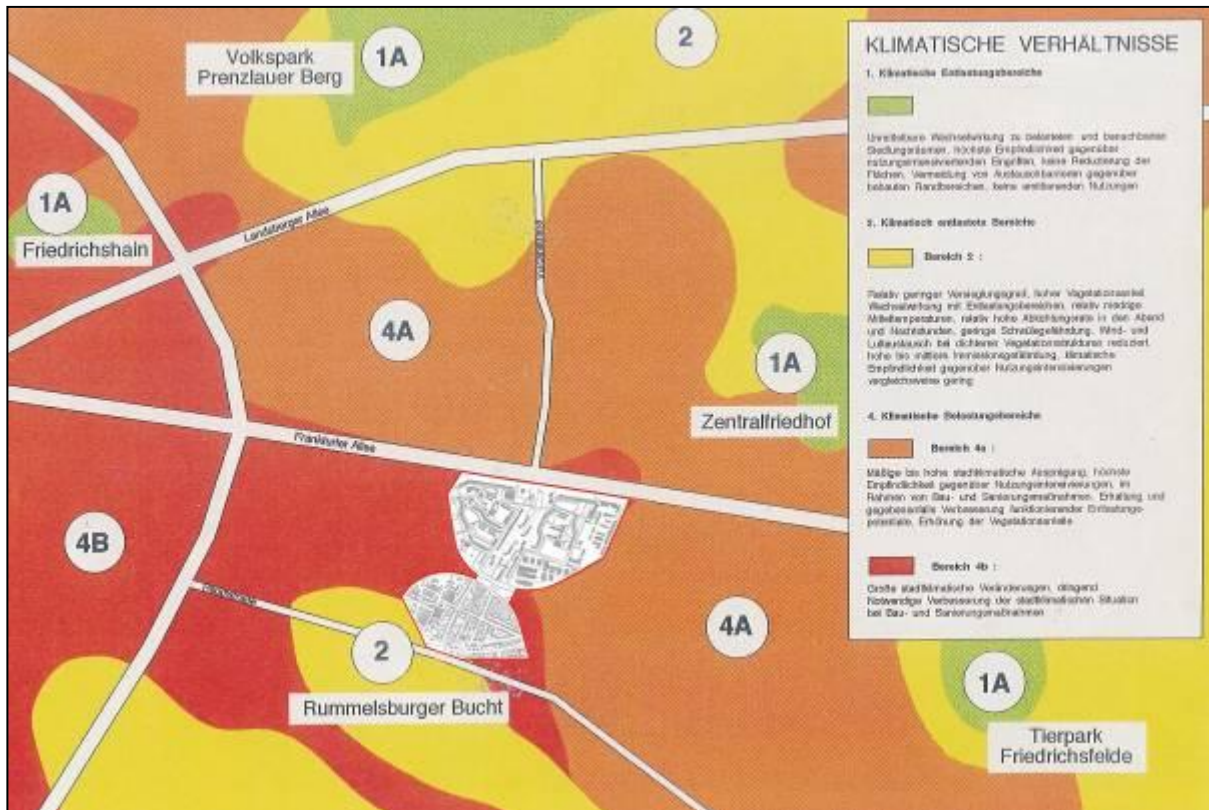


Fig. 19: Climatic conditions in the surrounding area Frankfurt Allee Süd and Kaskelkiez in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner

Frankfurter Allee Süd and Kaskelkiez are located within the climatic transition zone between the heavily loaded inner city district Friedrichshain-Kreuzberg and the less loaded periphery of the city. The quarters lie in a climatic load range (dark red and orange) due to emissions of industry and road traffic.

North of the study area, the industrial site Herzbergstraße is located and there also exists a coal-fired cogeneration plant nearby in the east. On the other hand south of the study area "Treptower Park" (a huge country park) and "Rummelsburger Bucht" (a considerable bay of the river "Spree") are located, which have a positive impact on the atmospheric load.

Frankfurter Allee Süd was threatened by a small existing vegetation potential, a high building density, a high rate of sealed surface, an increasing traffic volume and a high atmospheric load due to industrial emissions. The survey alerts the danger of urban climatic effects and advices of the indispensable enhancement of the urban climatic situation in connection with building activities and refurbishment measures. In this context through calculation of the "Biotope Area Factor" (Biotopflächenfaktor) one could deduce concrete measures in the course of improving residential surroundings. The Biotope Area

Factor serves as a binding ecological planning parameter that defines minimum standards for building plots concerning the positive impact on the ecosystem.

Coal-burning stoves in 76 % of the housing units in Kaskelkiez as well as the traffic volume caused a high atmospheric load in this area. Noise exposure through S-Bahn and transit traffic on cobbled streets was partly measured up to 65 decibel. Also groundwater contamination was feared, mainly because of waste deposits on the premises of Knorr-Bremse and on some of the plots that were used for business.

## 2.6 Urban Physical Structure and Housing Conditions

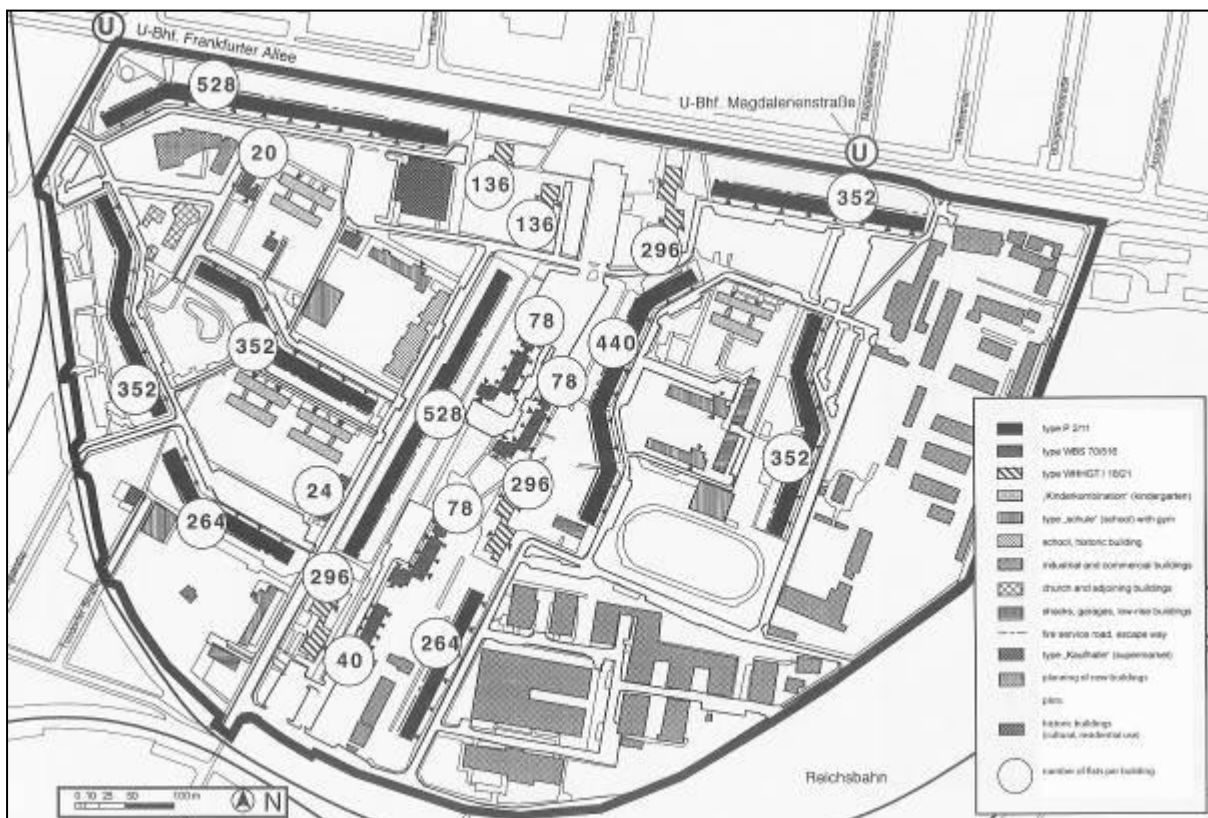


Fig. 20: Types of buildings in Frankfurter Allee Süd in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner

As already mentioned the urban physical structure between Frankfurter Allee Süd and Kaskelkiez differs a lot, because Frankfurter Allee Süd is a large housing estate and Kaskelkiez is a historic area.

The rebuilding of most of the plots in Frankfurter Allee Süd mainly took place between 1970 and 1974 whereas Kaskelkiez has been developed from 1872 on. According to this today in Frankfurter Allee Süd there are just a few remains of the historical settlement core and single historical buildings and on the contrary Kaskelkiez consists of plenty of historical buildings, ensembles and landmark buildings.

In 1992 the total housing stock of the case study area is 6.579 flats. 4.916 flats are located in Frankfurter Allee Süd, 1.663 in Kaskelkiez. The rate of rented flats is 100 %.

In Frankfurter Allee Süd there are in 1992:

- historical buildings: church and school in Schulze-Boysenstraße (landmarks), two villas, three residential buildings and the former laundry in Harnackstraße, 5 historical factory or business buildings, such as post headquarters in the eastern part of area.
- Prefabricated residential buildings were structured as follows:
  - a large proportion of the residential buildings are 10-11 storeys high, (type P2/10, resp. P2/11, all WE) (3.432 flats - 70 % of all flats in Frankfurter Allee Süd - are in such types of buildings),
  - 1.160 flats, this is 24 % of all flats - are in 5 single standing high-rise buildings, located at the northern edge and in the central area (type: WHH GT 18/21 with each 136 resp. 296 flats),
  - 6 % of all flats are in 5-6-storey-buildings, located in the north-south axis east of Schulze-Boysenstraße, which runs according to the layout of the line for the originally planned motorway (eastern ring motorway). These buildings were constructed later than the other building stock of Frankfurter Allee Süd (type: WBS 70, type Potsdam, 274 flats).

In 1992 these residential buildings the flat sizes were as follows:

- 13 % of flats with 1 room,
- 14 % of flats with 2 rooms,
- 39 % of flats with 3 rooms,
- 29 % of flats with 4 rooms,
- 5 % of flats with more than 4 rooms.

In general the need for refurbishment was evaluated as high, but the need of modernisation was evaluated as low, because these buildings already were equipped with central heating, a bathroom and a toilet. The buildings were in need of modernisation concerning their access including elevators as well as their balconies to make their usage up-to-date. Damages of the façade and the windows (concrete structure, loose façade parts, leaking windows) and the quality of the technical installations (corrosion of steel pipes, defective fittings) made repairs necessary.

There existed approx 18 buildings with social functions like schools, kindergartens and gyms, of which the following buildings were prefabricated:

- four kindergartens (type "Kinderkombination"),
- three schools (type "Schule"),
- two supermarkets (type "Kaufhalle").

In 1992 besides these buildings a mixture of traditionally constructed, provisionally constructed and prefabricated buildings (20) for industrial and commercial use exist east and southeast of the large housing estate.

Because of the age of the greater parts of the prefabricated buildings there were already construction elements with thermal insulation like heat-isolated perimetrical walls, windows with isolation glass etc.

The following characteristic values on thermal insulation of the outer structural units are characteristic:

U-value	perimetrical wall:	in range from 0,7 to 1,0 W/m <sup>2</sup> K
U-value	roof:	in range from 0,5 to 0,7 W/m <sup>2</sup> K
U-value	window:	in range from 1,8 to 3,0 W/m <sup>2</sup> K

These buildings also have a central warm water heating and a drinking water supply on the basis of municipal heat distribution.

An assessment of the energetic quality of these buildings (level of 1992) led to the following results:

average specific heat demand:	131 kWh/m <sup>2</sup> a
heat demand for hot water:	35 kWh/m <sup>2</sup> a
final energy demand:	175 kWh/m <sup>2</sup> a
primary energy demand:	125 kWh/m <sup>2</sup> a
spec. CO <sub>2</sub> emission:	53 kWh/m <sup>2</sup> a

The comparably low characteristic values for primary energy and CO<sub>2</sub> emission are a result of the supply with municipal heat by cogeneration plants for heat and power.



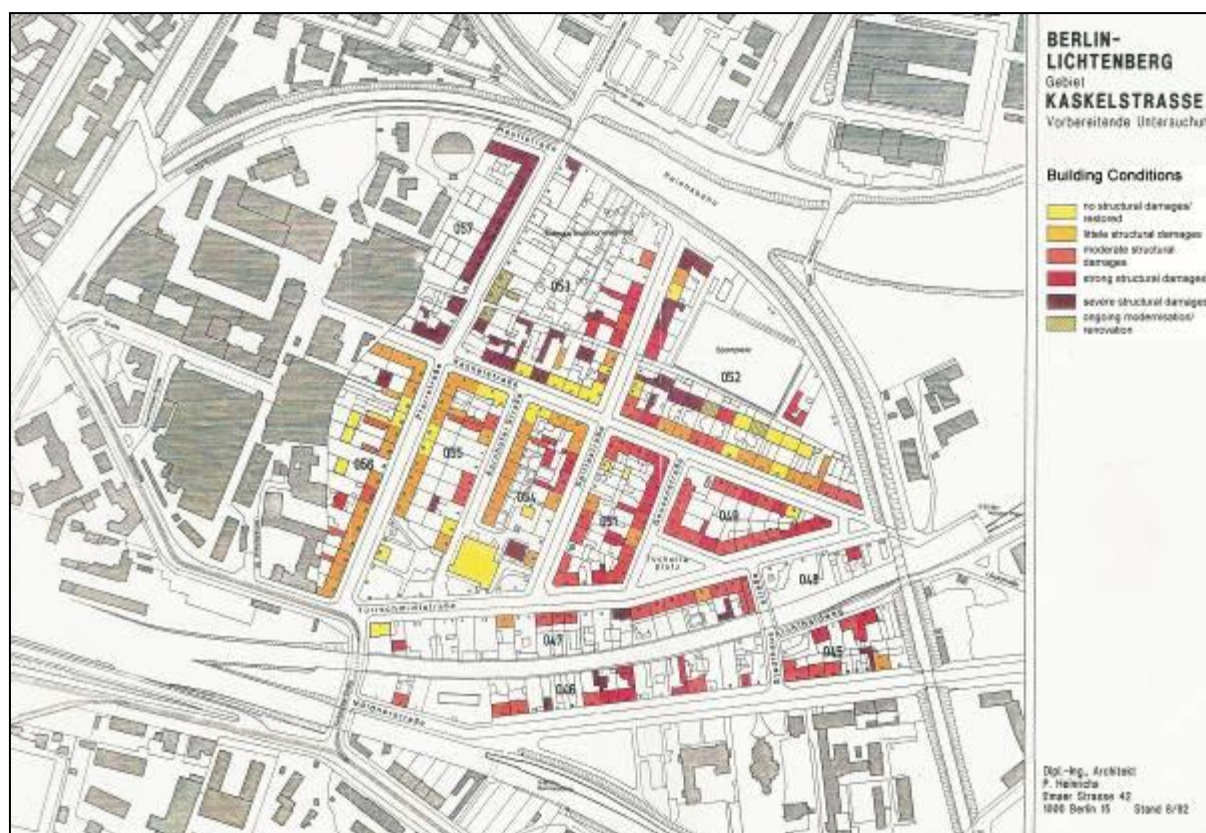


Fig. 21: Building condition in Kaskelkiez in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner

Kaskelkiez is a neighbourhood of a traditional European urban fabric, composed of a scheme of roads and blocks. The blocks are built up with attached multi-storey buildings. In 1992 there are 284 buildings in 12 blocks in the study area (excl. the industrial zone west of Kaskelkiez), of which 155 are monuments.

Most of the buildings are 4-5 storeys high and were built around 1887/88 or up to 1910. In 1992 only 6 of originally 60 slag concrete buildings exist, which were the founding core of Kaskelkiez between 1872 and 1875 and all of which are listed now. In World War II little was destroyed in Kaskelkiez, this is why the neighbourhood is rich of historic buildings. In 1992 there is only one newer building - a prefabricated supermarket (type "Kaufhalle").

64 % of all flats are in buildings with medium to severe structural damages. The assessment of the building conditions was made by inspection: On the one hand the outer surface of the buildings was surveyed (plaster, stucco, paint, windows, balconies and roof) and secondly the inside of the buildings (staircase, archway to the courtyard, basement and attic, if accessible). Structural damages are concentrated in block 53 (central northern block) and the southern blocks 46, 47, and 48 (along Nöldnerstraße und Türschmidtstraße). Largest need of refurbishment applies to block 57 ("squatted block Pfarrstraße") which had been left by its former tenants already before 1989. This block is squatted by about 100 young persons in 1991. Comprehensive restructuring measures are diagnosed for blocks 54 and 55. War damage and the philosophy of planning and building in the GDR have changed the former urban fabric. Here the building structure is

characterised by vacant lots which are used as storage or for minor commercial use in 1992.

In Kaskelkiez 60 % of the flats have 1-2 rooms and 40 % have 3-4 rooms in 1992. 25 % of the flats are stated as overstuffed. 280 flats - 18,5 % - are vacant (due to their bad condition), half of those are located in first floors.

In 1992 the building conditions are as follows:

- In the early 1980ies buildings of several blocks were "standard modernised", but without equipping the buildings with central heating.
- In 20 % of the flats there is no toilet inside the flat.
- 26 % of the flats have no bathroom or shower.
- 76 % of the flats are heated exclusively by single coal ovens.
- The outer condition of the buildings was much worse than the inside condition of the flats, because tenants usually had maintained their flats.
- Façades, staircases, basements and top floors are heavily damaged.
- Windows and roofs are in bad condition.

The thermal and energetic conditions of the buildings correspond to the conditions when they were constructed. The perimetrical walls did not have any thermal insulation; only a few gable walls had one. Different kinds of windows were to find: double- or single-glass wooden ones partly replaced by insulation glass windows. When the partly defective roof construction was repaired thermal insulation could not be used anywhere. The following characteristic values on thermal insulation of the outer structural units are characteristic:

U-value	perimetrical wall:	in range from 1,3 to 1,6 W/m <sup>2</sup> K (0,7 in case of thermal insulation)
U-value	roof:	in range from 0,8 to 1,0 W/m <sup>2</sup> K
U-value	window:	in range from 2,8 to 5,0 W/m <sup>2</sup> K

The tenants mostly used coal ovens (76 %), but there are also 16 % who used gas heatings or storey level gas heatings, only 8 % of the buildings were heated by central heatings on coal basis.

average specific heat demand:	203 kWh/m <sup>2</sup> a
heat demand for hot water:	13 kWh/m <sup>2</sup> a, decentral systems
final energy demand:	216 kWh/m <sup>2</sup> a
primary energy demand:	383 kWh/m <sup>2</sup> a
spec. CO <sub>2</sub> emission :	108 kWh/m <sup>2</sup> a

The high primary energy demand and CO<sub>2</sub> emission are a result of the use of coal as energy supply carrier.

## 2.7 Technical Infrastructure

In the beginning of the 1990ies the facilities and the equipment of technical infrastructure differ a lot between Frankfurter Allee Süd and Kaskelkiez. Missing data concerning heat supply will be researched separately and will be complemented later.

### Electricity Supply

The case study area is connected to the transformer stations "Gürtelstraße" and "Wiesenstraße". In addition there are several substations in the area. In Kaskelkiez an extensively renovation of the old power network took place in 1988/89. Approximately 70 % of the cables and house connections were renewed.

### Heat Supply

All buildings in Frankfurter Alle Süd are connected to the district heating system, which is powered by "Kraftwerk Klingenberg" (brown coal- and partly gas-fired cogeneration plant), that is located about two kilometres southeast of the area. In the southern area there is a district heating centre station where the main heat pipeline is shared out between to the buildings quarter pipes. The energetic quality of the above ground main pipe was as satisfactory as the underground pipe to the buildings.

In Kaskelkiez most buildings are heated by single room stoves, powered by coal or smaller parts by natural gas. Only a small number of the buildings, especially the commercial and industrial buildings, were heated by central heating systems powered by coal. The district heating pipeline is running alongside the quarter and the connection of the area to the district heating system was under investigation in 1992.

### Gas Supply

Both areas are linked to the gas distribution system. The gasometer on the premises of Knorr-Bremse is disused since the 1960ies (demolition in 1992/93). This is why gas is supplied by other gas plants of the region. The distribution network was built in the 1920ies and it was partly renewed in the 1960ies. In the 1980ies a great part of the grey cast iron pipes (with gas pipe leakage after changing from city gas to natural gas) was replaced through steel pipes. At the beginning of the 1990ies new steps on the reconstruction of gas supply system were taken.

### Wastewater

Both Frankfurter Allee and Kaskelkiez are connected to the centralised water supply system of the city. There are separated channels for rain water (to the river) and waste water (to the pump station).

In Kaskelkiez rainwater is subterraneously led through the "Kuhgraben" (which also marks the former administrative border between Rummelsburg and Lichtenberg - today still visible in Pfarrstraße, where the uniform building line is suddenly interrupted.) that is

connected to a main sewer which leads to the Rummelsburger Bucht south of Kaskelkiez. Two wastewater channels, which are partly in a desolate condition, lead to the pump station Fischerstraße (east of Kaskelkiez).

### Telephone

In the beginning of the 1990ies there are no data collected about the situation in Frankfurter Allee Süd. In Kaskelkiez the supply with telephone connections is insufficient. The telephone network is approximately 60 years old and the service density is 33 %.

## 2.8 Property Situation

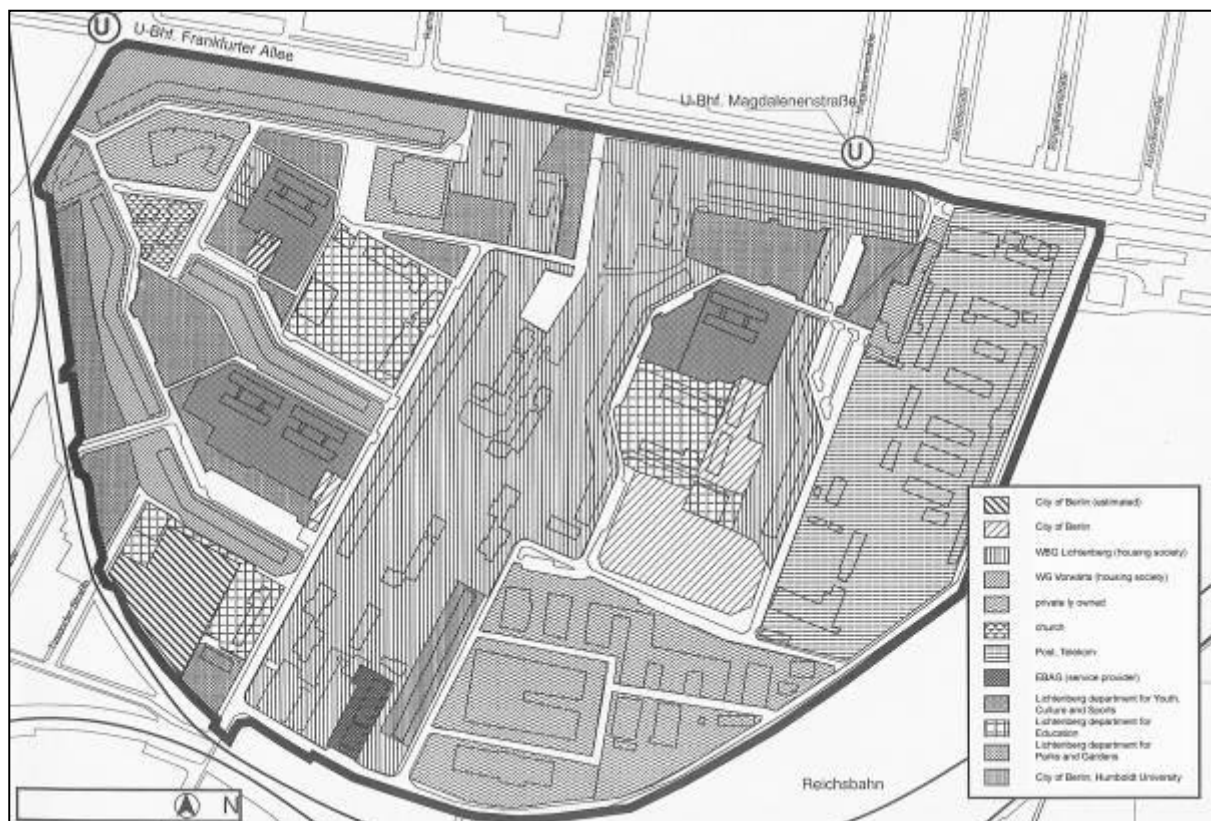


Fig. 22: Ownership options (current state of discussion) of Frankfurter Allee Süd in 1992

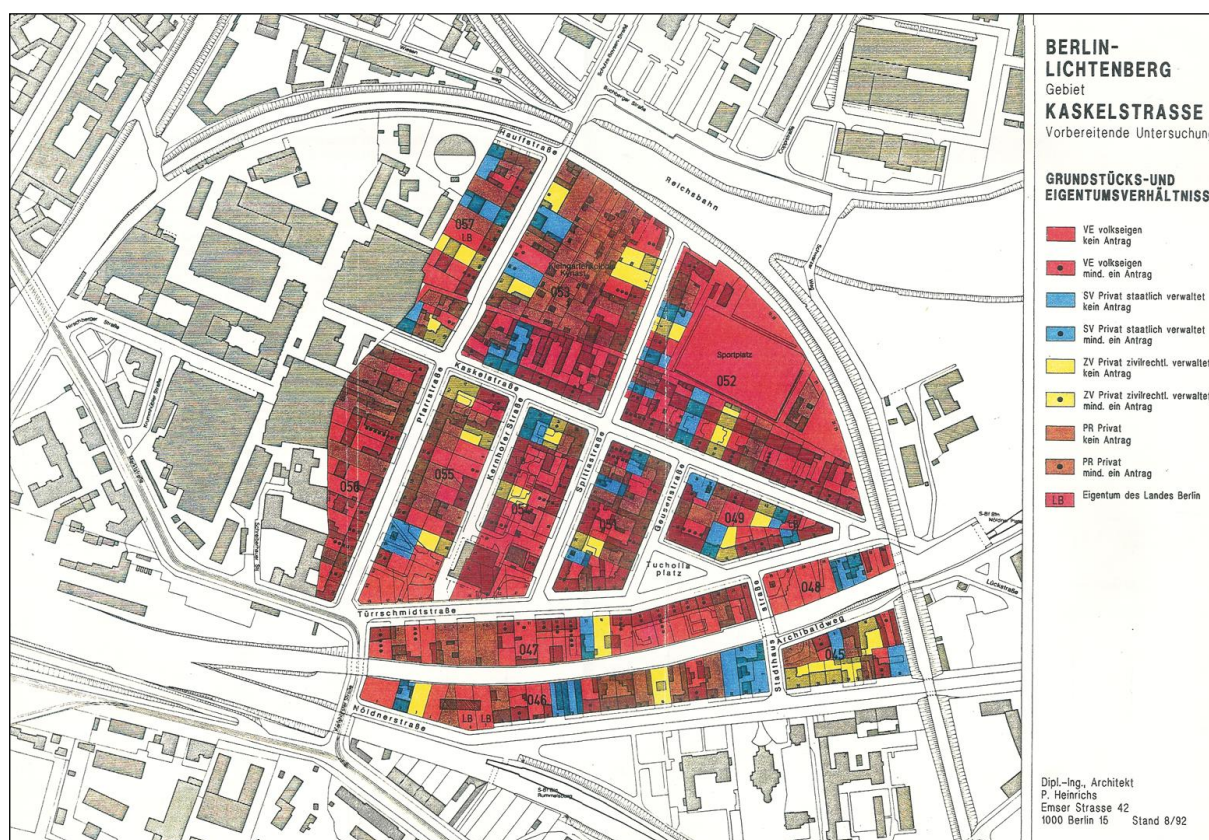


Fig. 23: Ownership structure of Kaskelkiez in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner

The property situation in the early 1990s, shortly after the break-down of the socialist East-German regime which the plan demonstrates is typical of inner-urban districts with their parcelling structures of little plots and small real estate properties from pre-socialist times. Though the large majority of housing plots is state-owned, formerly administered by municipal housing administrations, in July 1990 transferred to the newly founded municipal housing companies, one can recognise the original small plots of former individual ownership even now after 40 years of socialist reign with its numerous expropriations.

German legislation after 1990 required the restitution of arbitrarily expropriated real estate assets to their ancient proprietors or their heirs. But in many cases, considering the often very bad plight of the objects, entitled proprietors renounced to take over their property and negotiated the sale of their property to the housing company or looked for other purchasers.

#### Ownership Status/Organisational Structure

In 1992 the percentage of dwellings in individual ownership in Frankfurter Allee Süd is 0 %, and in Kaskelkiez about 50 %. Here the remaining 50 % are under public control due to missing applications for reassignment. In Frankfurter Allee Süd 66 % of the flats were owned by one housing company (institutional rental ownership by the Land Berlin), 34 % by cooperatives (Genossenschaften).

When the German Unity took place the law determined that local authorities needed to delimit public land (municipality-owned) from private land. The assignment between public and private land in the historic areas were relatively clear, here the main task was to reassign the plots and buildings. Before reunification 124 of 250 plots were "volkseigener Besitz". In 1992 there were applications of reassignment for 32 % of the plots. The remaining former volkseigene plots are being administered by the municipal housing company "Wohnungsbaugesellschaft Lichtenberg" (later HoWoGe).

The federal German legislation on real estate properties of the 1990ies did not require the restitution of former individual housing plots, if they had been integrated into the construction of new post-war housing settlement areas. Former proprietors could only apply for indemnification. So the large housing plots of Frankfurter Allee Süd, transferred to the municipal "Wohnungsbaugesellschaft Lichtenberg" in July 1990, went into its legal ownership.

### 3 Evaluation of the Situation

#### 3.1 Potentials and Constraints of the Neighbourhood

##### 3.1.1 Potentials

###### Location and Connection of Area Close to the City Centre

The location of the area in terms of vicinity to central functions of the city is beneficial. The average distance from the case study area to Alexanderplatz (city centre of Eastern Berlin region) is five kilometres. Both, public and private transport modes offer good options of mobility. Good public transport links to nearby quarters and city centre via bus, tram, metro and commuter railway system (S-Bahn). The national highway (Bundesstraße) B1, which is situated north of the area, connects the case study area directly to the Eastern city centre. This fact is evaluated positively but taking a closer look also constraints of the area are revealed: Reaching the national highway or other main streets is difficult due to the existing local road net.

###### Defined Neighbourhoods

The case study area is composed of two neighbourhoods. Both neighbourhoods, Frankfurter Allee Süd and Kaskelkiez, can be defined clearly towards their respective adjacent neighbourhood. On one hand this fact helps intensifying identification with the neighbourhood. On the other hand this fact is the reason for the main constraint of the area - namely the separation of the neighbourhoods from the adjacent quarters (see constraints).

###### Historic Spatial Structure and Historic Elements

Kaskelkiez offers a spatial structure with a traditional "European" street pattern and a rich history of building. This potential is especially important for certain target groups of residents. Historic neighbourhoods of the Wilhelminian era have the potential to be attractive for persons who prefer to live in densely built and lively neighbourhoods.

Frankfurter Allee Süd does not feature such qualities. Here only some traces of history are existent, such as the landmarks of the church and the school in Schulze-Boysenstraße. The church together with some smaller buildings and its parcels form a little historic nucleus which was integrated into the modern structure of the large housing estate.

#### Sufficient Offer of Schools and Kindergartens in Frankfurter Allee Süd

In the neighbourhood Frankfurter Allee Süd a sufficient or even surplus offer of facilities in terms of schools and kindergartens is provided. This fact can serve as a puffer for provision deficits in neighbouring areas like Kaskelkiez. However, in terms of social infrastructure also deficits and constraints apply to Frankfurter Allee Süd (see constraints).

#### Potential of Sufficient Greenery for Frankfurter Allee Süd and Kaskelkiez

The grand potential for green space is the large non built-up area that is surrounding both neighbourhoods - it is a plot of railway tracks. In Frankfurter Allee Süd the large non built-up spaces between the buildings offer potentials for a living environment that offers good options for different kinds of uses. Especially children and elderly could benefit from this if the various green spaces were designed and furnished.

The existence of compact, multi-storey types of buildings in Frankfurter Allee Süd and their sufficient thermal insulation are a good condition for an energetic modernisation resulting in an increase of energy efficiency.

#### Positive Features in Frankfurter Allee Süd:

- multi-storey buildings offer compactness
- existing thermal insulation layers in perimetrical parts
- high level of central heating systems linked to municipal heating supply
- buildings well-equipped (e.g. elevator)

#### Potential of Kaskelkiez:

- terraced houses
- high need of reconstruction because of conditions of houses; chance for complete renovation
- immense reduction of energy use and CO<sub>2</sub> emission.

#### Large Number of Flats with Large Size that are Suitable for Families in Frankfurter Allee Süd.

In Frankfurter Allee Süd there is an offer of a relatively large number of flats with large size (regarding number of rooms). This could be a potential especially for the development of the neighbourhood as a habitation for families.

### Potential of Heat Supply

As all buildings in Frankfurter Allee Süd are supplied by a municipal heating system there are good conditions to improve the efficiency of the given systems as well as to use regenerative energy in this district. The existing central heating systems offer chances of a decentralised use of technology of regenerative energy or cogeneration.

### Good Cooperation Between Senate and District Authority and Involvement of Housing Companies

The district was supported by the senate authorities in planning matters. Integrated urban development is not only a matter of authorities. Also private stakeholders need to be included in order to develop a sustainable neighbourhood. Fortunately the large property owners in Frankfurter Allee Süd (one municipal housing company and one cooperative) show a large interest in developing a sustainable place of living location. In Frankfurter Allee Süd the discussion process of the assignment between public and private land starts in 1992 and takes place with a strong participation of the large property owners, especially the municipal housing company. Their interest is not restricted to private matters. On the contrary - they are also strongly involved in the favourable development of the publicly owned surrounding - especially the residential environment. In 1992 large property owners also care a lot about the maintenance of (public) space and greenery and display strong interest in good solutions for the property assignment process.

## 3.1.2 Constraints

### Physically Isolated Neighbourhoods

The superordinated constraint of the case study area is its physical isolation from the neighbouring quarters. Railway tracks and highway Frankfurter Allee completely separate both neighbourhoods from the adjacent areas. On top of that the industrial and commercial zone east of Frankfurter Allee Süd and the industrial zone west of Kaskelkiez tighten the situation. Road and path connections to the surrounding quarters are limited to few streets. There is also only one connection between Frankfurter Allee Süd and Kaskelkiez: the S-Bahn-tunnel that crosses Schulze-Boysenstraße/Pfarrstraße.

### Noise Pollution

The edging residential spaces of both neighbourhoods are affected by noise pollution due to the surrounding railway tracks and highway Frankfurter Allee.

### Very Bad Edifical Situation in Kaskelkiez and Bad Edifical Situation in Frankfurter Allee Süd

The majority of the buildings in Kaskelkiez had severe construction damages:

- leaking roof constructions (woodworms)
- defective, wet façades through missing external rendering



- leaking wooden windows
- defective or insufficiently dimensioned supply units for water/gas/energy

In Frankfurter Allee Süd there were mainly damages on perimetrical walls (concrete structure), windows and balconies (concrete structure, missing sealing).

On the whole, the damages of the houses are less substantial with reference to the building structure and their usage.

In Kaskelkiez two thirds of the flats are located in buildings with medium to severe structural damages. On top of that in 20 % of the flats no toilet exists inside the flat, about one quarter of flats have no bathroom or shower and three quarter of flats are heated exclusively by single coal ovens. Hence the housing equipment does not meet the needs of healthy living conditions. These facts - among others - are the eminent reasons that justify the application of an urban development promotion programme (Städtebauförderung). These kind of German programmes are jointly promoted by federal, land, and municipal funds and are applied in quarters with severe deficits.

In Frankfurter Allee Süd the edificial conditions are much less severe than in Kaskelkiez. However, the need of refurbishment is evaluated as high. Besides the residential buildings also the social infrastructure buildings are in bad condition.

In the industrially constructed buildings in Frankfurter Allee Süd, which had an age ranging from 5 to 20 years, the biggest problem were the deficiencies concerning the dimensioning and equipment of the technical installation.

The single-pipe heating systems could not be regulated sufficiently and there were no installations for the final calculation. The central drinking- and warm water systems were highly inefficient due to a lacking thermal insulation and technology.

All the technical lacks resulted in high energetic values despite the existing thermal insulation.

In Kaskelkiez the majority of the buildings show the standard of the time of their construction (beginning of 20th century). Thus there is only little thermal insulation and the demands of hygienic protection (avoidance of condensation) are not fulfilled. Ovens are used in the greater part of the buildings showing low energy efficiency and a high CO<sub>2</sub>-emission. The conditions of the chimneys require reconstruction as well.

#### Deficient Urban Structure in the Southern and Western Part of Kaskelkiez

The historic urban structure in the southern blocks of Kaskelkiez was destroyed due to war damages and building placement during GDR times. In 1992 the structure is determined by several single vacant lots and provisional buildings. The future of the businesses and companies of the industrial zone in the western part of the area is unclear.

### Barriers in Physical Structure of Frankfurter Allee Süd

The physical structure of the large housing estate is composed of some long 11 storey-buildings that cause barriers in the neighbourhood. This applies to the area south of Frankfurter Allee and along Schulze-Boysen Straße. These buildings lack attractive passage ways.

### Bad Condition and Insufficiency of Technical Infrastructure

In general the nets of gas, electricity, heating, water, and telecommunication are in bad condition and partly insufficient regarding capacity and energy efficiency. In Kaskelkiez the buildings could not be supplied with gas as the technical parameters were not given. The capacity of the gas net had to be extended to replace coal ovens. The municipal heating networks in Frankfurter Allee Süd showed lacks of thermal insulation and efficiency distribution but it was well-prepared for further supply.

The telecommunication network was an analogue one thus an extension for the digital form was necessary.

### Unbalanced Demographic Structure

In both neighbourhoods the percentage of persons at age 65 and older (4 %) does not represent a normal portion. In Kaskelkiez on top of that the portion of people aged 18-45 (58,1 %) is 18,1 percentage points above district average. The unbalanced demographic structure can be a risk for the sustainable development of the area because it causes demographic waves which necessitate suitable adaptation of the infrastructure offer.

### Restricted Variety of Flat Sizes in Kaskelkiez

The fact that in Kaskelkiez a large number of small sized flats together with a very small amount of large sized flats exist constrains a sustainable development in terms of a balanced residential structure. Small sized flats, like those up to 2 room flats, only suit well small households. Families with more than one child or families with one elder child usually inquire flats with more than 2 rooms, unless they are poor. In order to reach a balanced demographic structure of a neighbourhood in the long term the household and age structure should be mixed.

### Unbalanced Social Structure in Kaskelkiez

In Kaskelkiez in 1992 a fairly large number of households (15 % - that is almost every seventh) is rated under minimum income. 25 % of the flats are evaluated as "overcrowded". This fact might indicate that the respective households have little option to move to a larger flat because of restricted financial resources.

### Neighbourhood Conflicts in Kaskelkiez

In 1992 in block 57 (Pfarrstraße) about 100 squatters (persons that moved into a house without owning it or paying rent for it) live. In the investigations dated 1993<sup>3</sup> some of the squatters are described with the words "aggressive behaviour". It is written that their aggressiveness is targeted at a project of youth welfare service which tries to encourage right-wing young persons to find their way back to civil society. Also these persons are described as aggressive. It is reported of violations and fights between these groups.

### Low Cultural and Economic Vitality

In 1992 both neighbourhoods lack low cultural and economic vitality. In Frankfurter Allee Süd only one cultural facility (Studio Bildende Kunst) and in Kaskelkiez also only one cultural facility (a small library) exists. The supply of retail and services is insufficient (as measured by a benchmark of 1 sqm per person). The demand for retail, services and gastronomy could not be supplied in regular buildings within the area. (Because of this) an "unplanned" provisional placing of businesses open-air or in shacks takes place, usually without permits. The existing focal locations of central uses - neighbourhood centres - (northeast in Frankfurter Allee Süd and along Kaskelstraße/Pfarrstraße and at Tuchollaplatz in Kaskelkiez) are threat by "off-site" supermarkets and department stores. 1992 these kinds of businesses already have been started in the adjacent commercial and industrial zones. An additional deficit of the neighbourhood centres is the circumstance that public space lacks quality (design, usage for different social groups). The paths and roads that lead to the centres are insufficient in number or quality.

### Lack of Social Infrastructure Facilities

The situation differed in Frankfurter Allee Süd and Kaskelkiez. In the neighbourhood of Frankfurter Allee Süd a sufficient offer of facilities regarding schools and kindergartens is provided but some of the facilities need renovation. Especially in the case of schools some constructional adaptation was necessary because of the new school system that was introduced all over the former GDR-districts. In the neighbourhood of Kaskelkiez a lack of facilities (all types) is analysed. There is also a high need of modernisation, meaning that the standard of equipment, like restrooms and heating systems, need to be exchanged. In both neighbourhoods high deficits regarding the offer of facilities for youth and aged people are assessed.

### Lack of Public Green for the Whole Neighbourhood

The situation regarding the offer of public green for the whole neighbourhood (siedlungsnahes Grün) is very bad: There is no supply that meets the respective benchmark. However - there are areas surrounding the neighbourhoods (the track areas) that can serve as potential space for public green for the whole area.

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<sup>3</sup> Abschlußbericht über die Vorbereitenden Untersuchungen Berlin-Lichtenberg. Bereich Kaskelstraße, Berlin (1993), p. 47

### Lack of Public Green Close to Residential Building and Lack of Playgrounds in Kaskelkiez

In Kaskelkiez only very few public green spaces and playgrounds exist in 1992. Only about half of the benchmark is met. The deficit for public playgrounds totals about 70 %.

### Deficits in Design and Condition of Publicly Used Residential Surrounding

Both neighbourhoods are characterised by little use options of open spaces because of insufficient design and furnishing. That applies not only to the public green spaces but also to the private spaces in the back of the buildings. Within the neighbourhood of Frankfurter Allee Süd the supply of open space is very good but deficits in size and furnishing are evaluated. In both neighbourhoods a high degree of sealed surface exists, especially in the courtyards of Kaskelkiez. Non-built-up lots are often misused for parking.

### Deficits Caused by Parking

In the neighbourhood of Frankfurter Allee Süd deficits in quantity of parking spaces were predicted. In Kaskelkiez a sufficient number of existing parking spaces was counted for the present situation (because of housing vacancy and social structure), but an increase of demand was expected. The amount of sealed surfaces that parking space caused and the size of the single parking space (the single spaces were smaller because they had been projected for smaller cars in the GDR) were evaluated to be constraints as well.

### Unclear Ownership Situations

Although the subdivision of the housing settlement area of Frankfurter Allee Süd as a whole into public and private land had been carried out for most of the area, questions about the responsibilities of maintaining parts of the open space and about the ownership of waste container spaces and parkings in 1992 were not yet totally resolved. In Kaskelkiez the ownership of 50 % of all flats are not clarified in 1992. Because of this the development of refurbishment is blocked. Although this problem could not be sufficiently resolved a solution for these flats and plots could be found in terms of legal and administrative handling. These flats were set under public control (municipality level) and administered by the municipal building society.

## 3.2 Needs for Action

The needs for action can be deduced from the evaluated constraints and potentials. In a nutshell one can say that constraints need to be reduced or abolished and that potentials are to be qualified in the process of urban development. The actions shall be undertaken not separately from each other but together - in an integrated way of action.

## Qualifying the Potentials

The following main actions shall be taken in order to qualify the potentials of the case study area:

- Frankfurter Allee Süd offers qualities for target groups which prefer to live in quiet green neighbourhoods and may not pay high rents. In order to qualify Frankfurter Allee Süd the large amount of green space, the good supply of social infrastructure and the numerous numbers of large flats shall be improved.
- In order to qualify Kaskelkiez the conserved traditional urban fabric and buildings are to be developed and improved.
- The surrounding non built-up space of Frankfurter Allee Süd and Kaskelkiez (tracks) shall be used in order to minimise the deficits in greenery and in order to suspend the isolated situation of the two neighbourhoods.
- The positive beginnings of civil involvement and institutional cooperation need to be preceded and cultivated.

## Reducing and Abolishing the Constraints

The following main actions shall be taken in order to reduce or abolish the constraints of the case study area. Again it shall be underlined that all actions need to be taken in an integrative manner.

- The greatest challenge is the refurbishment of the building stock. As a consequence of a complex reconstruction of residential buildings lots of measures for the improvement of the living standard (new floor plan, integration of bathrooms) are linked with one another. An important aspect is the energetic modernisation (central heating, thermal insulation of façades, windows etc.) which provides, in connection with further measures, a higher standard for the buildings as well as for living there as for renting. These synergy effects result in an increase in value of the whole area.
- In Kaskelkiez comprehensive restructuring measures are necessary in blocks 54 and 55.
- The barriers caused by the long buildings in Frankfurter Allee Süd need to be overcome.
- In order to reduce the adverse consequences of an unbalanced demographic structure positive action needs to be taken towards a mixed structure - meaning that building societies need to introduce an active location policy.
- In order to encounter the restricted variety of flat sizes in Kaskelkiez the building stock needs to be adapted to a broader variety of flat sizes, particularly to larger sizes.
- The social structure is described as "unbalanced". This does not necessarily mean that the social structure shall be balanced by mixing the structure. The deprived persons rather are to be supported by integrated actions like active employment policy or educational measures.
- The low cultural and economic vitality of both neighbourhoods needs to be tackled. The urban and legal conditions for gaining more retail and services as well as cultural facilities need to be prepared.
- The lack of social facilities, explicitly facilities for youth and aged people, needs to be compensated.

- Also in schools and kindergartens a coupling of building refurbishment and energy-efficient refurbishment is possible and useful for adapting to the new educational system.
- Public green and open space needs to be improved, especially in terms of design, maintenance and furnishing.
- The number and furnishing of playgrounds needs to be enhanced respectively improved.
- Private open space shall be unsealed and enriched with vegetation.
- Flat and plot ownership needs to be clarified as soon as possible in order to initiate private refurbishment and define responsibility.

Part 3

## 4 Relevant Discussions and Priorities of Action

### 4.1 Relevant Discussions Concerning Both Areas Together

#### 4.1.1 Spatial Isolation of the Case Study Area

The two neighbourhoods in the case study area Frankfurter Allee Süd and Kaskelkiez are not only spatially separated from each other by railway tracks. They are also isolated from the surrounding neighbourhoods since nearly the whole case study area is surrounded by railway tracks and major roads. Approaches discussed dealt with the role of a major green belt which should connect the case study area with the surrounding neighbourhoods. Another approach was the impact of art in public area that could be used for the designing of the accesses to the quarter, like the light installations at a railway underpass.

The problem of the spatial isolation of the area has been discussed since the early 1990ies and is still being tackled. The first integrated plannings for Frankfurter Allee Süd and for Kaskelkiez, both in 1993, concentrated on measures inside the particular neighbourhoods. Back then priorities were clearly set on measures inside the neighbourhoods - rather than looking at potentials at the edge of the areas, which could have been used in order to mitigate the two neighbourhoods' isolation.

It was only 2001, that concrete measures were elaborated and started to be realised in order to link the two neighbourhoods to each other and to the surrounding areas. That was because of the social emphasis of the funding programme that started in the area in 2001. The programme "Urban II" focused on integrated measures concerning the social situation of the area. Thus, the paradigm of the area was "Remove Barriers". Removing barriers was meant in two ways: First linking the people to each other (in a social sense) and second, linking the area to its surrounding (by constructional measures).

Today only the link between the two neighbourhoods by the railway underpass and the green belt southwest of Frankfurter Allee Süd (Grünzug Frankfurter Allee Süd) and northeast of Kaskelkiez (Grünzug Hauffstraße) are realised and function as good links.

#### 4.1.2 Urban Freeway - Eastern Ring Road (Osttangente)

Since the early 1990ies a freeway -the "Eastern Ring Road" (Osttangente) is being discussed. If realised the freeway would lead through the western edge of the case study area.

In 1991 the Senate Administration favoured the completion of the Ring Road model. In this time an impact study had not been carried out yet. Alternative traffic routing, aboveground- and tunnel solutions had been discussed.<sup>4</sup> In 1994 the freeway was contained in the Berlin Land Use Plan. The district Lichtenberg had disagreed with the freeway during the participation period prior to the adoption of the land use plan.

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<sup>4</sup> Senatsverwaltung für Stadtentwicklung und Umweltschutz (1991), pp. 11 and 15



In the integrated planning documents of 1993 and in those up to 2006 the project Eastern Ring Freeway was almost ignored. In the text one can find a problematisation of the freeway but in the major plans a normal city road instead of the freeway is assumed and drawn in the various plans.<sup>5</sup>

Almost 20 years had passed that the discussion about the Eastern Ring Freeway was arisen again. Since two years a major discussion about the eastern ring freeway is going on between various stakeholders. A significant protest by the civil society resists the political resolution by the Berlin Senate to realise the Eastern Ring Freeway.

## 4.2 Relevant Discussions and Priorities of Action Frankfurter Allee Süd

### 4.2.1 Ownership Structure and Property Situation

As already mentioned in chapter (2.8) the process of assigning private land from public land took up to five years in large housing estates. In Frankfurter Allee Süd the discussion of assigning public and private land was an important aspect to be integrated into the general planning process of the area. As so, the integrated planning that is documented in the "Städtebauliche Untersuchung Frankfurter Allee Süd" (1993) included a map named "Ownership option (current state of discussion) of Frankfurter Allee Süd in 1992".

In this first proposal of land assignment

- all land for retail, industrial and commerce use was private,
- land for service providers was assigned to the respective providers, as so "Post", "Telekom" and power provider "EBAG",
- land for schools and kindergartens, public green space and playgrounds were assigned to the respective departments of the district,
- all land around the residential buildings was assigned to the respective housing companies "WBG Lichtenberg" and "WG Vorwärts",
- the street land was assigned as public (municipal).

The discussion of alternatives was held mainly about the following issues

- how allocating public and private parking,
- how parcelling public and private green space and
- organising public and private access (roads and paths).

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<sup>5</sup> The results of an interview of Ms. Spieweck and Mr. Radke, both city planners with the district's city planning department since the early 1990ies, affirm the thesis that the planned freeway or its effects were not treated properly in the informal plans. However, in some of the formal plans, for example in the local development plan for the building development at the intersection Frankfurter Allee Süd and Möllendorffstraße, the freeway was considered. (Interview Oct. 10, 2010, Ursula Flecken/Paul-Martin Richter - Ms. Spieweck/Mr. Radke at Lichtenberg city planning department)

This had a very important economic impact: The definition of properties and the assignment of assets followed German traditions of land use and land ownership. Public land ownership is generally restrained to public infrastructure (streets, public green etc.) and to public needs (schools, nurseries, kindergartens etc.) Housing generally is defined as private land use. Housing companies, even if their proprietors are public institutions like the municipality, are submitted to private right. The assignment of land, occupied and enclosed by residential buildings, including all spaces used for derived purposes like waste collection points, parking, children's playgrounds (if not defined public) meant at the same time the transfer of responsibility for maintenance of these spaces to the housing company.

The assignment of these assets enabled the housing companies to achieve a credit standing with banks. Credits were needed in order to finance the renovation and enhancement of buildings. This meant that the housing companies' interest was to achieve private land as much as possible. On the other hand costs for maintaining the greenery, parking and paths around the buildings needed to be taken into account.

The decision was made in favour of privatising land around the buildings as much as possible. Today the ownership of greenery, parking spaces and paths that are located directly around residential buildings, is clearly defined as private ownership of the respective housing company.

#### 4.2.2 Refurbishment of Buildings

Reconstruction demands were necessary according to law:

- installation of thermostat valves/consumption figures on the basis of state-regulated rules
- renewing of municipal heating distribution centres/survey control station
- reconstruction of perimetrical parts on the basis of Energy-Saving-Regulations

The city of Berlin set the frame conditions and guidelines for the modernisation of residential buildings (Inst/Mod-RL 94).<sup>6</sup> Each type of building got its specific measures.

During the reconstruction a number of unavoidable measures showed up partly caused by repeated humidity damages of windows through a non-existing sealing. Consequently, lots of windows were replaced. The tenants supported these activities hoping for an increased living standard.

The complex reconstruction took place from 1995 to 2001, totally completed in 2006/2007.

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<sup>6</sup> Senatsverwaltung für Bau- und Wohnungswesen, Zuwendung zur Instandsetzung und Modernisierung von industriell gefertigten Wohngebäude im Ostteil Berlins (Inst/Mod-RL 94 - industrielle Bauweise), Appendix 1, 2 und 3

The discussion of rehabilitation of buildings also included the form and modality of designing entrances, options of establishing tenants' gardens and adding of additional entrances at the back of the buildings. Also a new waste management system was planned. In this context the former garbage chutes at each floor of the buildings should be transformed into chambers as additional supply for tenants instead of a cellar. In addition green covering of roofs was seen as one possible reaction of the heavy atmospheric load in the area.

### 4.2.3 Rehabilitation of Technical Infrastructure

Municipal heat was the major means employed in this area. Its further use was not questioned by the housing companies. An economic supply with heat was given due to existing fixtures and the renewing of service stations at the beginning of the 1990ies. Despite the possible technical options there were no serious considerations of the usage of natural gas.

### 4.2.4 Enhancement of Greenery and Open Space

The fact that the existing greenery and open space needed to be enhanced was not an object of discussion. Only the costs and the design of greenery and open space were discussed.

There was an agreement between all actors that public green and open space is an important element that determines the image and the quality of a residential quarter. One knew that a quarter with a good supply of green and open space and well designed and maintained greenery and public space (streets and squares) is ranked much higher in quality of living than a quarter with unattended space.

Discussions about greenery and open spaces were held between different user groups (children, adolescences, aged people) which have differing needs regarding equipment and arrangement of public space. These kinds of discussions were harmonised in citizen participation processes (see chapter 5). The discussion about converting the railway tracks around the housing estate into a green belt also included ecological aspects of greenery. This discussion took place after the year 2000 when ideas about the green belt were detailed. There was an argument between the natural role of greenery and the social role of greenery. The question was whether to design the green belt as "natural" as possible or to make it usable for humans' needs.

Back then no discussion was held about the potential role of open space for renewable energy generation.



Fig. 24: Aerial view on Frankfurter Allee Süd (1992)

#### 4.2.5 Parking Space versus Greenery and Open Space

The privileged status of parking space or greenery had been an intensive discussion in the early 1990ies. Some of the tenants were in favour of a sufficient amount of parking space but other tenants preferred more green space instead of parking lots. Also there was no one-sided position of the housing company. Their prior interest was to ensure parking for their tenants but at the same time they wished a well designed environment.

The solution of the early nineties was a compromise between parking and greenery. In order to protect greenery and open space as much as possible a new multi-storey car park and new garages covered by greenery and additionally parking spaces along streets or in small parking lot entities were planned. In terms of the latter parking spaces priority was set in favour of greenery and open space.<sup>7</sup>

This concept of the early nineties was only partly implemented: Whereas the disposition and enhancement of parking spaces along streets and in small parking entities were realised in a relative short time, the proposal of a new multi-storey car park and new garages covered by greenery had not been realised. This proposal was given up by later planning of the housing estate, because of the high costs of such constructions. The balance of the costs and earnings or benefits of such parking constructions illustrated that nobody, neither the public nor the housing companies or the tenants wanted to pay for this.

<sup>7</sup> Büro für Stadtlandschaft (1993), pp. 48, 70 and 74

In the following years it turned out that the overall demand of parking spaces was much lower than one had expected in the early nineties. The reason for this was the good connection of the area to public transport and a lower rate of individual motorisation (in the early nineties the calculated demand of parking spaces was related to the benchmark of 0,6 spaces per residential unit).

#### 4.2.6 Road and Path Network

One aim was the creation of a clearly laid out foot path network to pass more easily through the case study area. Within the related discussion themes were the degree of publicness, safety requirements and coherence with the parking concept.<sup>8</sup> Also the necessity of an opening in a long prefabricated building along Schulze-Boysen-Straße was discussed in order to create an additional east-west foot path connection.<sup>9</sup> Along with the refurbishment of the respective long building it was decided to realise a barrier-free opening of the building. Another integrated measure that came along with the refurbishment and the opening was the traffic calming of Schulze-Boysen-Straße. Priority was set on pedestrian crossings between a school and the opening.

#### 4.2.7 Enhancement of Social and Cultural Infrastructure

Regarding the enhancement of social and cultural infrastructure the main questions had been: Which facilities should be refurbished (first) and to which extent? To what degree energy consumption could be saved by refurbishment? Should all existing infrastructure buildings be refurbished or should some be reused, demolished or displaced by new buildings?

The first integrated planning concepts of the early nineties mentioned a general need of refurbishing all social and cultural facilities without making any differences. No special emphasis was put on the question how to finance the refurbishments. It was only later that priorities were set in terms of which facility should be refurbished first.

10 years later a differentiated concept regarding refurbishment and possibilities of reuse, demolition and new construction was developed. The limited financial resources and the complex demographic changes in the area were reasons for that.

After the year 2000 a relevant number of school spaces in Frankfurter Allee Süd were not occupied. It was discussed whether to reuse or demolish some facilities. In the planning concept of 2002 it was decided to give up the school Schulze-Boysen-Straße 38 and reuse it for a socio-cultural centre.

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<sup>8</sup> Büro für Stadtlandschaft (1993), p. 50

<sup>9</sup> Büro für Stadtlandschaft (1993), p. 60

But in the following year it turned out that the costs of reusing the school were too high. It was then strongly discussed if the socio-cultural centre should be established in a new construction. The discussion in favour of a completely new building was lead by social arguments: The measure of building a new construction of contemporary architecture instead of reusing an old building is a strategy that is especially implemented in deprived neighbourhoods. Today the new building of socio-cultural centre "Kiezspinne" plays an important role as a social and educational facility in the area.

The decision about which of the social and cultural facilities should be refurbished first were taken by the question which facility had the best feasible long term integrated concept. In the context of a funding programme that allocated funds in 2008<sup>10</sup> the decision of priorities in terms of refurbishment included the question which facility refurbishment would lead to the most effective energy and CO<sub>2</sub>-saving.

#### 4.2.8 Redensification

In the early nineties the issue of redensification was discussed within the context of demographic growth, implementing mixed use and design issues.

In the beginning of the 1990ies an increase of the city's population was forecasted, so the whole municipal area was scrutinised due to redensification potentials. Hence the construction of additional buildings was also proposed in the area Frankfurter Allee Süd. (see plan of 1993 below) New building potentials were recommended in order to improve the mix of uses (e.g. by extending residential buildings by commercial buildings at the front side) and to improve the design of squares and streetscapes (e.g. by defining building fronts around squares and along streets). After 1993 the discussion about the redensification of Frankfurter Allee Süd lead to the agreement, that there should be no additional buildings in the housing estate in order to conserve the urban design characteristics of the large housing estates.<sup>11</sup> The specific urban design characteristics of large housing estates were evaluated negatively by some groups in the first place after 1990, later the positive aspects were introduced into the discussion, especially by the tenants.

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<sup>10</sup> federal funding programme "Investment Pact for Energetic Refurbishment of Social Infrastructure": In order to receive funds the district needed to calculate and prove the energy and CO<sub>2</sub> effects of refurbishment.

<sup>11</sup> interview of Ms. Becker, city planners with the district's city planning department responsible for the area Frankfurter Allee Süd since the early 1990ies. (Interview Oct. 10, 2010, Ursula Flecken/Paul-Martin Richter - Ms. Becker at Lichtenberg city planning department)

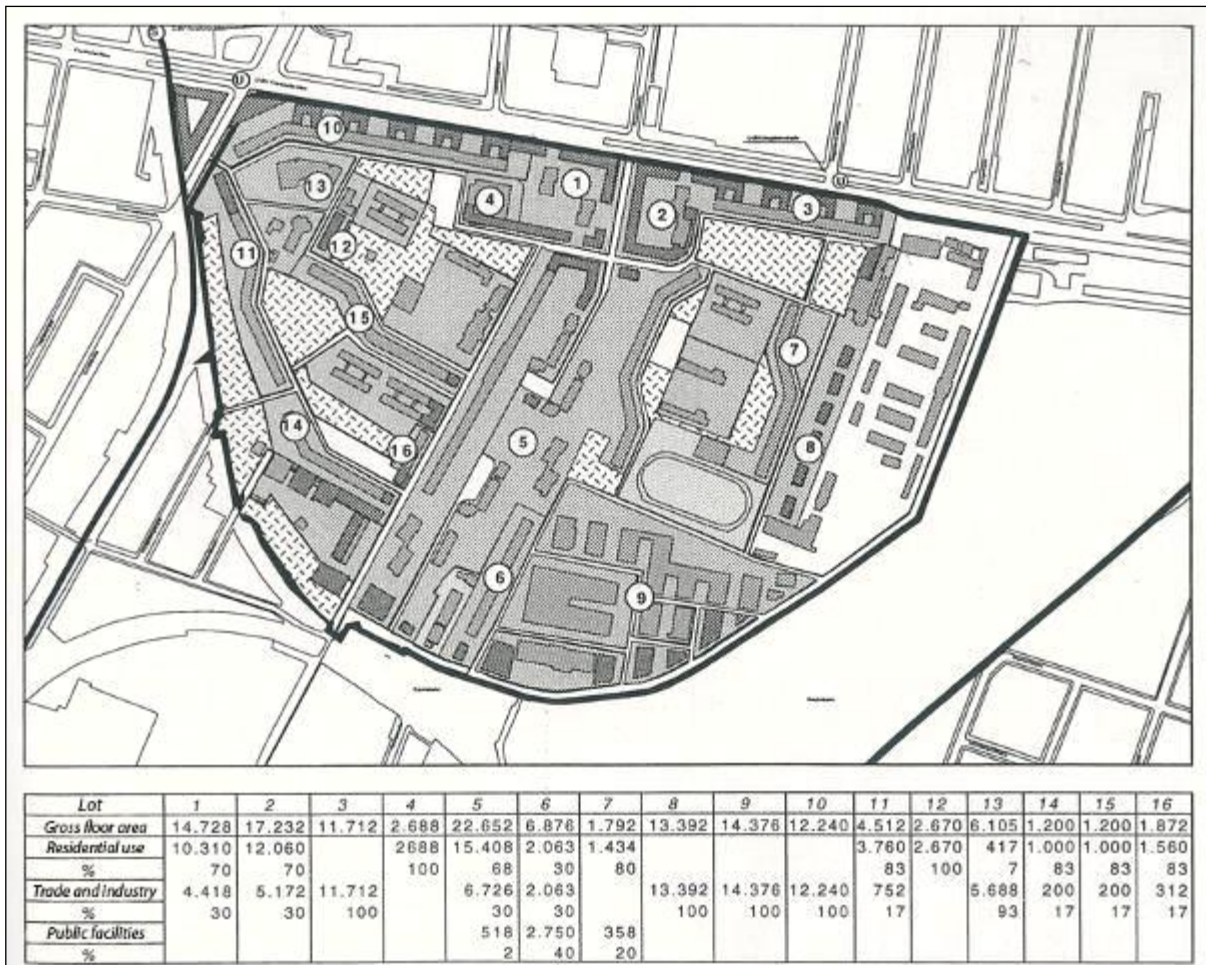


Fig. 25: New building potentials in Frankfurter Allee Süd in 1992, revised by Planergemeinschaft Dubach, Kohlbrenner

The population forecast of Berlin was one important basis for planning. Back in the early nineties the forecast prognosticated a strong increase of the Berlin population. There were three scenarios, of which only one forecasted stagnation, namely a number of 3.7 Mio. inhabitants in the year 2010. The other two were based on optimistic assumptions and prognosticated 4.4 or even 5.2 Mio. inhabitants in 2010. According to the perspective increasing population additional residential buildings were planned not only in new building areas but also in between existing areas - like the case study area.

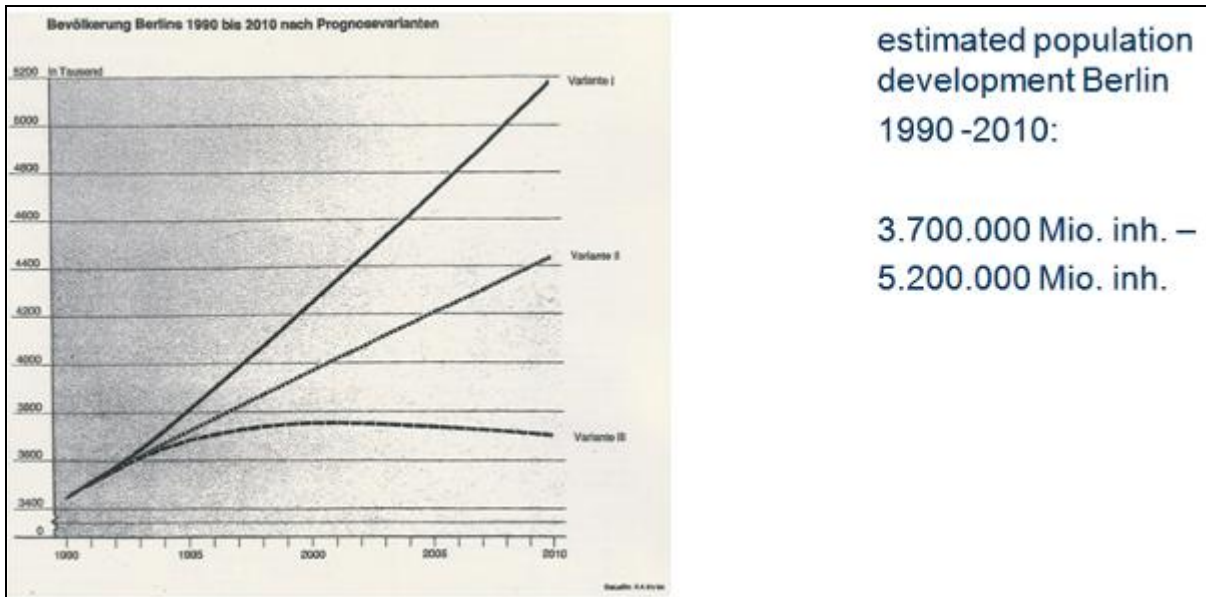


Fig. 26: The Berlin forecast of 1990

Today - looking back - we were proved wrong. A different population development took place than forecasted in the early nineties. In the nineties the population number in Berlin even decreased slightly, as so in the neighbourhoods of the case study. Especially the numbers of inhabitants in the age group of children and adolescents showed a significant break in the nineties. Today's population forecast (2007) - as shown in the following figure - presumes three scenarios, of which one shows a stabilising number of inhabitants in the year 2030 (about 3.4 Mio. inhabitants, see red line), one a slight increase up to 3.6 Mio (green line) and one a slight decrease to 3.3 Mio. inhabitants (blue line).

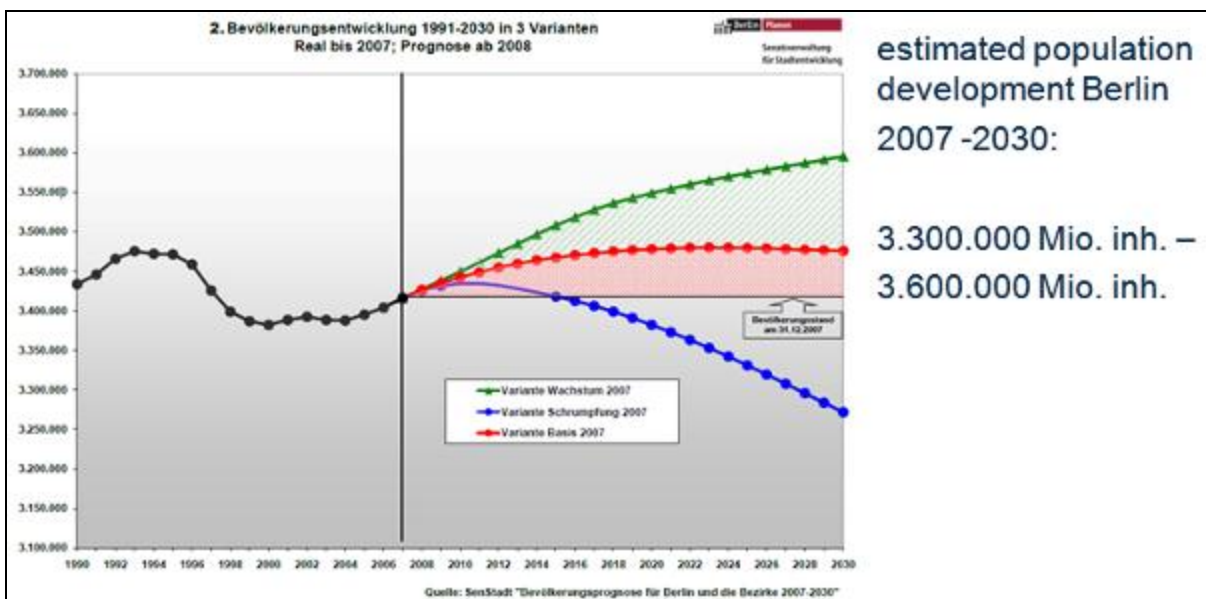


Fig. 27: The Berlin forecast of 2007



## 4.3 Relevant Discussions and Priorities of Action Kaskelkiez

### 4.3.1 Formal Designation as Redevelopment Area: Yes or No?

Within the discussion of the formal designation of an area as redevelopment area it has to be proved the need of redevelopment measures, according to § 136 (2) Federal Building Code, "[...] by means of which an area is substantially improved or transformed with the purpose of alleviating urban deficits."<sup>12</sup> Here an integrated approach is chosen, which considers urban structure and functional aspects as well as the balance between economic and social development. Therefore Preparatory Investigations according to § 141 (1) Federal Building Code are obligatory "[...] in order to procure the documentation required to arrive at an assessment of the need for the redevelopment, the social, structural and urban planning conditions and context, the general aims to be pursued and the general feasibility of the redevelopment. The preparatory investigations shall also extend to cover any negative impact which may be anticipated for persons directly affected by the redevelopment with regard to the economic and social circumstances of their lives."<sup>13</sup>

One main intention of the Preparatory Investigations for the Area Kaskelkiez (Vorbereitende Untersuchungen Berlin-Lichtenberg, Bereich Kaskelstraße) 1993 (see chapter 6.3) was to evaluate the situation. The question was whether urban deficits according to § 136 (2) Federal Building Code can be proved or not. "Deficits in respect of urban development occur where

1. in its existing state of physical development or condition, an area fails to meet the general needs of the people living or working within it in respect of healthy living and working conditions and general safety, or
2. an area is seriously impaired in its ability to meet the requirements placed on it as a consequence of its position and function."<sup>14</sup>

The results of the Preparatory Investigations for Kaskelkiez proved the need of redevelopment measures according to § 136 Federal Building Code.

### 4.3.2 Ownership Structure and Property Situation

The assignment between public and private land in historic areas were relatively clear, hence in Kaskelkiez: All plots were to be private and all remaining land, like streets, squares and greenery were to be public. Plots for social and cultural infrastructure were assigned to the respective administrative department of the district. However, in the early nineties there was a huge amount of former owners of formerly publicly owned buildings and land who applied for the reconveyance of their former property. In Kaskelkiez the process of reconveyance of single plots or legally conveying housing stock to municipal

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<sup>12</sup> Federal Ministry for Regional Planning, Building and Urban Development (1993a), p. 101

<sup>13</sup> Federal Ministry for Regional Planning, Building and Urban Development (1993a), p. 103

<sup>14</sup> Federal Ministry for Regional Planning, Building and Urban Development (1993a), p. 101

housing companies or non-profit housing cooperatives was documented carefully within the urban planning process. Today approx. 70 % of the plots/apartments are individual ownership. Almost 20 % of the private owners live and/or work in the area, which is a comparatively high proportion. 18 % of the apartments are owned by private building companies and 12 % of the apartments are owned by the municipal housing company HOWOGE.<sup>15</sup>

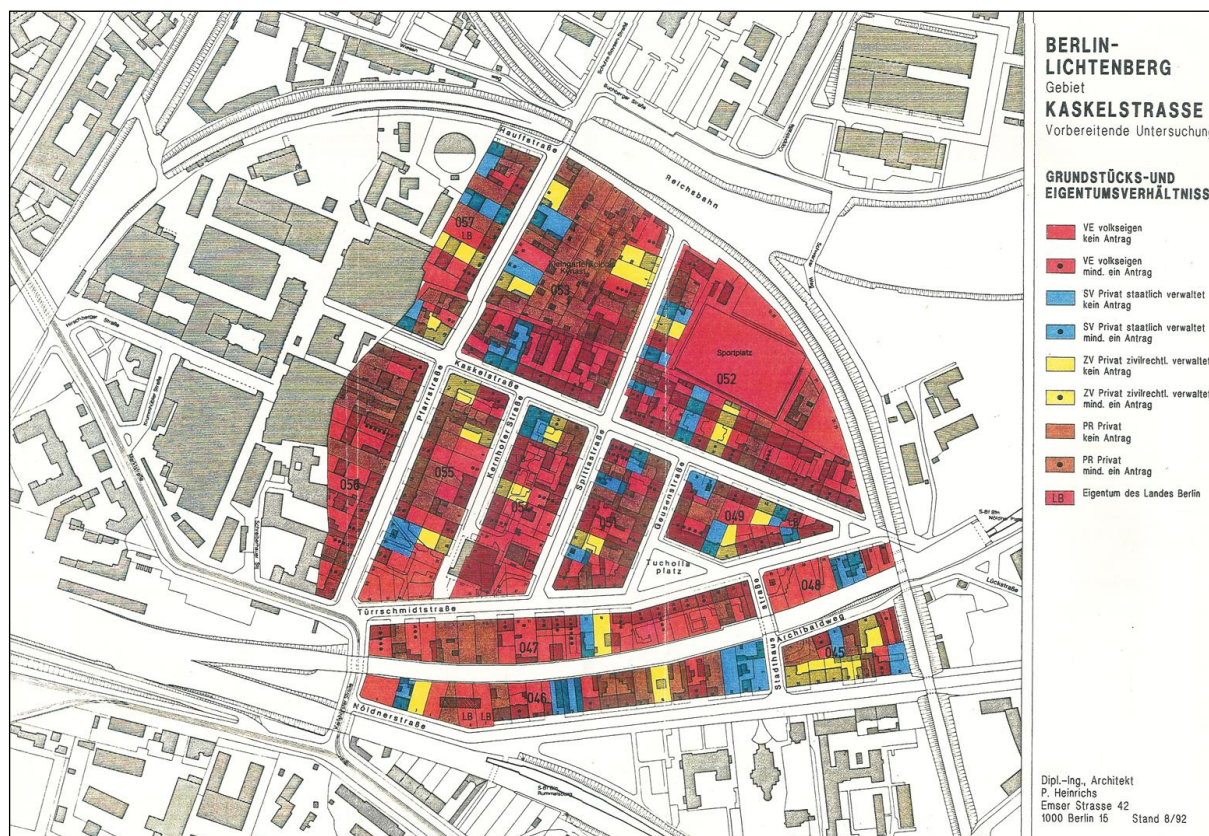


Fig. 28: Ownership structure of Kaskelkiez in 1992

### 4.3.3 Refurbishment of Buildings

Not only the extent of refurbishment was discussed but also feasible energy efficiency measures. These included e.g. thermal insulation of cellars, walls, gables and roofs, insulation of windows, reduction of the extent of coal-burning stoves, greening of roofs and façades.<sup>16</sup>

The renewal of buildings required a compromise and a balance between demands and aims. As conditions of the houses were partly very poor and still tenants lived in there, the focus was on measures keeping the substance and making it attractive for renting.

<sup>15</sup> Bezirksamt Lichtenberg von Berlin, Abteilung Stadtentwicklung, Stadtplanungsamt (2007): p. 16

<sup>16</sup> Senatsverwaltung für Bau- und Wohnungswesen (1993), p. 108 and p. 125

At the same time it was proven necessary to keep the historical construction substance and its image as well as to fulfil the demands on improving the energetic quality of the buildings.

To realise the prior demands for an up-to-date usage and a high quality of the buildings (build in of energy-efficient heating systems, central warm water supply, renewal of supply and disposal pipes) certain measures were coupled with what was necessary to keep up the historic image.

The regulations on the maintenance of historic façade structures affected plaster remedial works connected with the repair of façade elements instead of thermal insulation of the façade. Consequently measures on the energy-efficient modernisation of the building corps concentrated on those sides showing to the yard, on the roof and the cellar ceiling. This way of working corresponded to the will of the owners who wanted to maintain the historic façades with their wooden frame windows.

The plan for energy-efficient refurbishment had to find a compromise between new law regulations of 1982 and 1995, the owners' interests and municipal preservation objectives concerning the image/look of the façades.

In retrospect one can say that especially for listed buildings the main focus was on modernisation of buildings services, on improvement of energy efficiency and on reduction of pollutant emissions by change of energy carrier from coal to natural gas.

#### 4.3.4 Monument Conservation

The discussion of how to preserve the neighbourhood's historic characteristics took a major place in the planning process. Two instruments were applied: the listing of monuments (single monuments and monument ensemble) and the preservation statute (the preservation of physical structures and of the specific urban character of an area - § 172 BauGB)

Until 1989 a few single listed buildings already existed. In the northern part of Pfarrstraße the construction of prefabricated buildings as in Frankfurter Allee Süd had been planned during GDR times. After the fall of the Berlin wall, a lot of flats in these historical buildings had been vacant and in a very bad condition, because they hadn't been maintained since they were designated to get demolished anyway. Due to massive protests against this rigid form of demolition-reconstruction, including the squatting of several flats during the era of reunification, the whole western area of Pfarrstraße/Kaskelstraße/Kernhofer Straße was listed as monument ensemble.<sup>17</sup>

Because of increasing numbers of refurbishment measures that endangered the historic character of the neighbourhood (like plastic windows or changing roof structures due to roof-space conversion) a preservation statute for almost the whole area of Kaskelkiez was

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<sup>17</sup> Senatsverwaltung für Bau- und Wohnungswesen (1993), p. 38

enacted in 1998.<sup>18</sup> In 1998 Kaskelkiez was passed as an area of "Protection of urban architectural heritage" (Städtebaulicher Denkmalschutz). Because of this Kaskelkiez has received funding for developing.

The requirements and conditions for the protection of historical buildings resulted in the maintenance of strongly structured and decorated façades with wooden frames, ignoring higher costs and poor energetic values. With a few exceptions the installation of new windows with thermal glass were not accepted in order to maintain the historical view of listed façades.

The focus was on the renewal of pipe systems for heating and warm water as well as on thermal insulation of those façades not facing the street. A good example to illustrate this is "Pfarrstraße" where the new street façade does not have any thermal items.



Fig. 29: Refurbished façades in Pfarrstraße (2010)

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<sup>18</sup> Bezirksamt Lichtenberg von Berlin, Abt. Bau- und Wohnungswesen, Stadtplanungsamt (1994), p. 34

### 4.3.5 Trade and Commerce

In the historic area the "misuse" of living space in the upper floors for commercial uses was an important issue. An admission of business activities in upper floors of residential buildings would be a contribution to the reduction of vacancy. Also necessary preconditions for the resettlement of need-driven, small-scale and not-disruptive businesses were discussed.<sup>19</sup> Also of great importance had been the question of the development of businesses on the so called "garage plots" such as construction business or car trade. Because these activities require relatively high consumption of area it was questioned rather to maintain and strengthen them, to maintain and "develop them further" or to relocate them in order to create new living space. Therefore it was necessary to evaluate the potentials of alternative accommodation nearby. Also a formal designation of prospective areas could be necessary.<sup>20</sup>

### 4.3.6 Rehabilitation of Technical Infrastructure

The main aim of the renewal of the technical infrastructure was to improve the standard concerning the supply with energy, water, sewage, and telecommunication and heating energy.

Realising this was in the hands of supply companies. The GASAG enterprise invested in the renewal and extension of its gas pipe systems to replace coal heating. In 2007 the gas pressure was finally increased to improve the supply situation.<sup>21</sup>

Municipal heat is only available on the southern rim of Nöldnerstraße. There were attempts to explore the complete area (focus: Scheibenhauerstraße) but in 2006 the authorities voted against its development.<sup>22</sup>

### 4.3.7 Enhancement of Greenery and Open Space

In Kaskelkiez a clear lack of public green and open space was assessed in the beginning of the nineties. Therefore there was a discussion whether to convert approx. 10-15 non built-up building plots into greenery. It was decided in 1993 that the southern non built-up plots of blocks 54 und 55 at Türirschmidtstraße, one plot in block 55 at Kernhofer Straße, the western plots of block 48 at Stadthausstraße and were to be dedicated for public green. One courtyard in block 54 was dedicated as garden for a planned kindergarten, which then was realised at another location. Later one additional plot in block 52 at Hauffstraße,

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<sup>19</sup> Senatsverwaltung für Bau- und Wohnungswesen (1993), p. 100

<sup>20</sup> Senatsverwaltung für Bau- und Wohnungswesen (1993), p. 145

<sup>21</sup> Result of interview of Mr. König, GaSAG AG, Berlin, Henryk Hoenow - Mr. König , 09/2010

<sup>22</sup> Result of interview of Mrs. Bachmann, Vattenfall AG, Berlin Henryk Hoenow - Mrs. Bachman, 10/2010

which was foreseen as a further location for a kindergarten, also was dedicated as green space.

The specific design of all public green areas/playgrounds and of the public square Tuchollaplatz was discussed by extensive participation processes, including participation of the youth and other residents in constructional measures (also at Nöldnerplatz, located west of Kaskelkiez, behind the railway underpass).

#### 4.3.8 Parking Space versus Greenery and Open Space

In the courtyards of Kaskelkiez a high degree of sealed surface existed in the early nineties. Non-built-up lots were often misused for parking. All in all there were little use options of open spaces because of insufficient design and furnishing. That applies not only to the public green spaces but also to the private spaces in the back of the buildings.



Fig. 30: Aerial view on Kaskelkiez (1992)

In Kaskelkiez a sufficient number of existing parking spaces was counted for the situation (because of housing vacancy and social structure), but an increase of demand was expected. The amount of sealed surface that parking space caused as well as the size of single parking lots (Single lots were too small because they had been projected for smaller cars in the GDR) was evaluated as other weaknesses.



Fig. 31: Use of open space as "informal" parking lots (1992)

The supply of additional public green spaces was a big challenge in Kaskelkiez. An increase of the demand of living space was expected due to the forecasted increase of population. So it was mainly discussed whether non built-up lots should be used for redensification or as green space.

### 4.3.9 Road Network

As the quarter suffered from transit traffic the prospective traffic routeing and an intended traffic calming was of big interest. Also the connection to the surrounding road network had to be discussed.

Especially the potential of Hauffstraße for the development as green lane for pedestrians and cyclists was discussed in connection with consequences for traffic-routeing and the demand for parking space. As a solution, the green corridor was realised, including a small number of parking lots in the northern street section between Spittastraße and Pfarrstraße.

### 4.3.10 Enhancement of Social and Cultural Infrastructure

In Kaskelkiez the same questions as in Frankfurter Allee Süd were of importance. This affects priorities and extent of refurbishment as well as the prospected need of new facilities and potentials for reuse of public facilities. In the neighbourhood of Kaskelkiez a lack of facilities (all types) was analysed. There was also a high need of modernisation, meaning that the standard of equipment, like restrooms and heating systems, needed to be exchanged.

In the course of renewal of this area intensive debates had taken place rather on the demands and qualities of schools, kindergartens and other social institutions than on energetic quality of the buildings. The reconstruction programme put emphasis on getting rid of structural deficits.<sup>23</sup>

Regarding the enhancement of social and cultural infrastructure the main questions had been: Which facilities should be refurbished and to which extent? At which locations rebuilding or completely new buildings are required? At which location the reuse of public facilities is feasible?

### 4.3.11 Redensification

According to the population forecast it was discussed how to add further housing space. There was a broad agreement about constructing new residential buildings along Nöldnerstraße. In order to realise new housing along Nöldnerstraße the use of the existing "garage plots" needed to be removed.

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<sup>23</sup> Result of an interview of Mr. W. Schmitz, Bezirksamt Lichtenberg, H. Hoenow – W. Schmitz 15.08.2011



One fact was discussed intensively: Should the adding of floors on top of existing buildings or roof-space conversion be allowed? Due to reasons of monument conservation roof-space conversion became forbidden with exemption on an existing appropriate style of roof and roof slope.

Also the needs based adjustment of flat sizes was discussed which should be achieved by combining small flats to one bigger flat in order to hold families in the quarter.

## 5 The Cooperation and Participation Concepts

After having described the different discussions that were lead during the planning processes the relevant actors of the discussions and their cooperation shall be explicated.

### 5.1 The Cooperation and Participation Concept of Frankfurter Allee Süd

The main actors that participated in the integrated planning process in Frankfurter Allee Süd during the past 20 years are shown in the chart below.

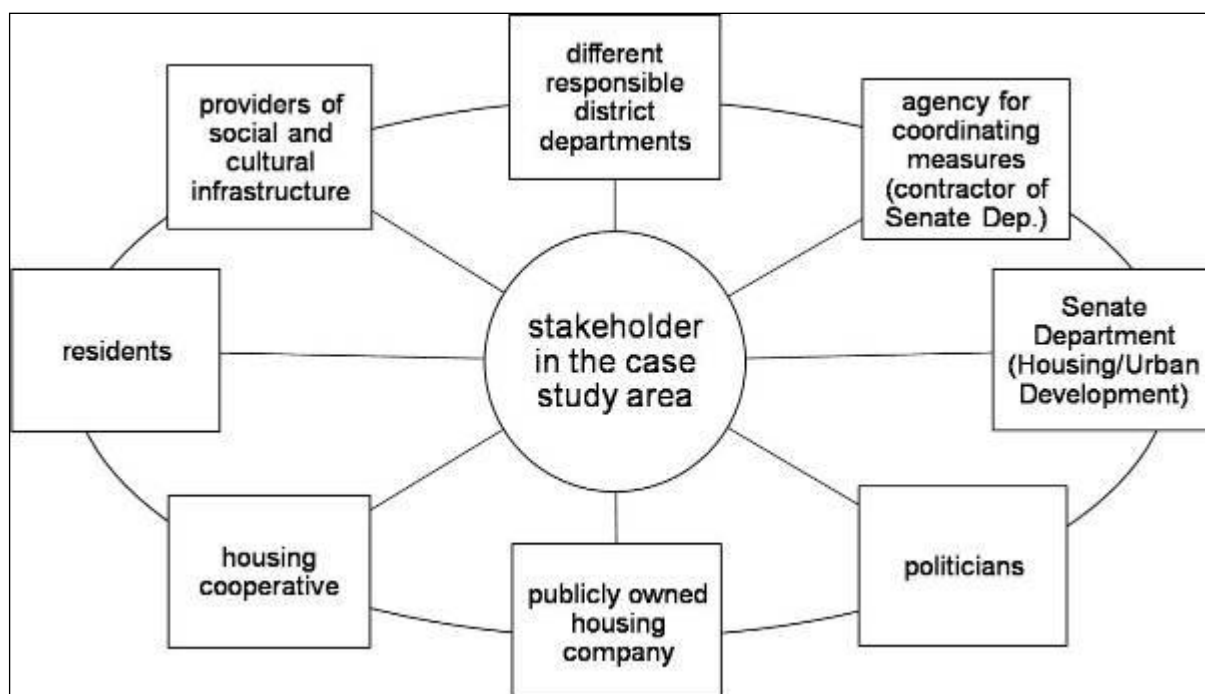


Fig. 32: Stakeholder constellation in Frankfurter Allee Süd 1993

Not all actors participated with the same intenseness during the past years. Their roles differed according to the issues which were in the centre of discussion.

The first IUDC for Frankfurter Allee Süd of 1993 (see chapter 6.1) documents the strong roles of

- the district office (Bezirksamt), represented by the urban planning department (Stadtplanungsamt),
- the senate department for construction and housing (Senatsverwaltung für Bau- und Wohnungswesen),<sup>24</sup>
- the municipal housing company WBG Lichtenberg,
- the private planning office that was contracted in order to elaborate the planning document.

The senate department for construction and housing is the contracting body of the planning concept. The senate department for construction and housing has a strong influence by supporting the district not only in terms of financial funding. The senate also had and is still having a strong strategy for further development of large housing estates, which underlines that they are important and liveable housing areas.<sup>25</sup>

The participation of the WBG Lichtenberg is documented especially in the field of property clarification,<sup>26</sup> in the field of enhancing greenery around the buildings and in the field of coordinating public and private investments. In the planning documents there is a list which details public investments as well as all private investments by WBG Lichtenberg (see chapter 6.2).

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<sup>24</sup> The Senate Departments responsible for housing, environment, traffic and urban development were restructured several times between 1996 and 2006. Between 1990 and 1996 three senate departments existed: Senate Department for Construction and Housing (Senatsverwaltung für Bau- und Wohnungswesen), Senate Department for Environmental Protection and Urban Development (Senatsverwaltung für Umweltschutz und Stadtentwicklung), Senate Department for Traffic and Services (Senatsverwaltung für Verkehr und Betriebe). In 1996 the Senate Department for Construction and Housing and the Senate Department for Traffic and Services were united under the Senate Department for Construction, Housing and Traffic (Senatsverwaltung für Bauen, Wohnen und Verkehr), which existed up to 1999. In 1999 all ressorts named above were united in the Senate Department for Urban Development (Senatsverwaltung für Stadtentwicklung), of which the ressorts of environment was separated in 2006 to a different senate department, namely for environment and health.

<sup>25</sup> In 1991 the Senate Department for Construction and Housing set up and started a strategy in order to enhance large housing areas. (Schümer-Strucksberg, Monica: The Berlin strategy for further development of large housing estates: statement of position, in: European Academy of the Urban Environment: A future for large housing estates, Berlin 1998) The today's strategy is expressed in the funding strategy within the programme "Urban Restructuring east" ("Stadtumbau Ost")

<sup>26</sup> Büro für Stadt-Landschaft (1993), pp. 45 and 74

These actors can be stated to be the strongest ones during this early planning process.<sup>27</sup> They came together in "coordination meetings" as mentioned in the planning document.<sup>28</sup> In the planning document there is no evidence how residents were included in the elaboration of the planning concept itself, however the objective that residents are to be included in the implementation process is mentioned several times. The fact that residents were participating actively in the planning processes of the early 1990ies was affirmed through an interview with a member of the city planning department Lichtenberg who has been in charge of the area since 1993.<sup>29</sup> The residents were organised in a group called Bürgerverein (citizens' group).

After the planning concept of 1993 set up the frame for measures and after different public funding programmes were passed (see chapter 6.2) that could be applied to the area, a coordination office (named Stiftung SPI, Sozialpädagogisches Institut) was established and worked for the area during the years 1993 and 1998. The coordination office was contracted by the senate department for construction and housing and its task was to coordinate the implementation of measures in the area. Their duties comprised coordinating the detailing of planning and the realisation of measures, the use of public funding and its settlement of accounts, organising the cooperation of actors and especially promote and organise the participation of residents. As their work was concentrated on the large housing area and the tasks needed an engagement on a daily bases they became a very important stakeholder in the development process. They succeeded in including more actors, as the second housing company in the area: the housing cooperative Vorwärts eG (Wohnungsbaugenossenschaft Vorwärts eG). It was important to coordinate private and public measures especially regarding the housing stock and the enhancement of public and private greenery. Thus the housing companies were an important partner of development.

The role of residents was strengthened through their participation in concrete measures. Especially the participation in the designing of green and public space became a focus of residents' action. For example, tenant participation was strongly conducted when planning and realising tenant gardens.

When the municipal housing company HOWOGE succeeded the municipal housing company WBG Lichtenberg (which was shut down) in 2001 several participation measures were introduced to Frankfurter Allee Süd, which had already been conducted by HOWOGE in other neighbourhoods since 1994. The possibility for tenants to found a tenants' advisory board (Mieterbeirat) as well as the conduction of tenants' opinion surveys were introduced to Frankfurter Allee. The surveys, which have been continued until today, on the one hand give an overview of the development of the tenant structure and of their needs and their critics. On the other hand it is a possibility for tenants to address their customer

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<sup>27</sup> This fact was also affirmed by Frau Becker, city planning department (Stadtplanungsamt) of district Lichtenberg, who was in charge of the area Frankfurter Allee Süd in 1993, Interview 8.10.2010 (Flecken, Richter, Becker)

<sup>28</sup> Büro für Stadt-Landschaft (1993), p. 4

<sup>29</sup> Interview 8.10.2010 (Flecken, Richter, Becker)

satisfaction towards the housing company by a detailed assessment of conditions concerning their flat/building (e.g. interior, comfort, price, neighbours, etc.), the surrounding open space (e.g. design, safety, tidiness and cleanliness, etc.) and the neighbourhood in general (e.g. image and provision of transport, shopping, cultural, social, sports and leisure infrastructure, etc.).<sup>30</sup>

Today HOWOGE is also an important partner to realise educational measures targeting at energy efficiency. HOWOGE tenants are being informed about HOWOGE strategies and plans - especially on energy efficiency - on a regular basis in a tenants' magazine. Each household which moves into an energy-efficient refurbished building receives an energy saving primer that includes detailed information about energy saving behaviour and about effects of energy saving. The primer exists in 5 different languages.



Fig. 33: HOWOGE's energy saving primer (Energiesparfibel)

Another educational measure of HOWOGE is a show flat for energy saving. Each person interested, HOWOGE tenants or others, can visit the show flat, where a specialist trained in energy efficiency explains all implications of living in an energy-efficient refurbished flat and of more possibilities to save energy in daily life.

<sup>30</sup> HOWOGE (2000): Mieterbefragung 2000 im Auftrag der HOWOGE in Hohenschönhausen und Lichtenberg, pp. 30

The introduction of the European funding programme Urban II to Frankfurter Allee Süd transmitted new impulses to the neighbourhood development, not only in terms of financing more measures but also in terms of participation action. So the construction of the new neighbourhood centre was conducted in close collaboration with the citizens' association "Kiezspinne e.V.". The association is operator of the centre, which accommodates far more than 50 courses and services for consultation, education, sports and other leisure activities. The associated neighbourhood workshops on the one hand serve as qualification scheme for the improvement of manual and technical skills for unemployed adolescents and on the other hand it's an opportunity for residents to gain assistance for minor repairs.

Residents and especially women and the youth had been involved in the conception and designing of the surrounding open and green space, which belongs to a section of the green corridor "Grünzug Frankfurter Allee Süd". The design concept was determined by a competition and chosen by a jury consisting of representatives of local residents, Kiezspinne e.V. and Senate and district departments. The planning process was seen as one of the core projects for the implementation of gender planning in Berlin-Lichtenberg: The commissioned agency responsible for the measure was an association for the promotion and career advancement of women. The design concept, supervision and constructional measures all had been conducted by women.<sup>31</sup>

Also the providers of social and cultural infrastructure are strong actors in Frankfurter Allee Süd. Especially schools in the area and the provider of the "Kiezspinne" got involved in the process of enhancing the area. Schools were and are partners to planning workshops (for example a series of planning workshops for the green corridor Frankfurter Allee Süd, located south west in the area) and the Kiezspinne, a newly built neighbourhood centre, became a focal point of exchanging social and cultural issues in the area.

In terms of energy efficiency the district Lichtenberg has introduced some educational measures, such as the "Climate Office Lichtenberg" (Lichtenberger Klimabüro) and the project "energy consultants" (Energieberater).

Climates offices are information centres for citizens and network interfaces for issues related to climate. Among others, their service comprises advises for energy-saving in households and companies, practical information about climate and environment protection, information about promotion and use of renewable energies, ecologically correct recreational activities, theme parties and workshops, rental of measurement devices for energy consumption.<sup>32</sup>

Energy consultants are initiated by an environmental organisation and the city of Berlin. The project is carried out especially for low-income households and it targets sensitisation of the tenants' attitude towards heating, ventilation and energy saving.

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<sup>31</sup> Senatsverwaltung für Stadtentwicklung, Referat IV B Soziale Stadt (2008): pp. 38

<sup>32</sup> <http://www.planergemeinschaft.de/sul/projekte/index.htm>

## 5.2 The Cooperation and Participation Concept of Kaskelkiez

The cooperation and participation concepts of Frankfurter Allee Süd and of Kaskelkiez differ. Comparing the actors of both areas most of the actors are the same. But there are some differences in number and type of actors and in their respective roles.

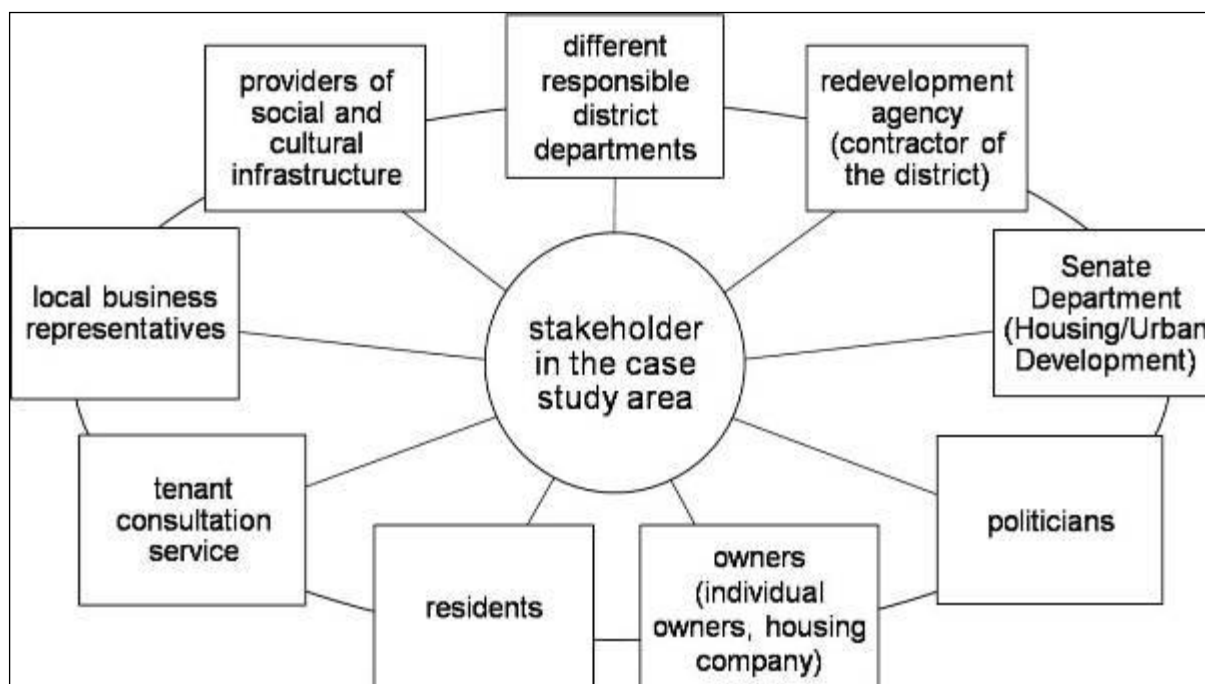


Fig. 34: Stakeholder constellation in Kaskelkiez 1993

One main reason for the different actors' cooperation concept is the fact that Kaskelkiez was an "urban redevelopment area" (Sanierungsgebiet) between 1994 and 2008.

The Federal Building Code provides for urban redevelopment processes what is termed "redevelopment legislation" to facilitate urban renewal measures. Besides formal public participation in formal planning processes citizen involvement takes place according to §137 Federal Building Code in urban redevelopment areas. It is obligatory that parties affected by urban redevelopment measures are to be participated in the planning process. In Kaskelkiez these parties affected can be identified as the following actors: residents, real estate owners, local business people and providers of social and cultural infrastructure.

In urban redevelopment areas cooperation and participation is conducted in a fixed organisational framework. In Kaskelkiez the "representation of affected parties" (Betroffenenvertretung) and the "redevelopment advisory board" (Sanierungsbeirat) played an important role within the planning and implementation process. Compared to the "representation of affected parties" the "redevelopment advisory board" included both representatives of affected parties as well as public actors (district and Senate authorities and administrations).

Like in Frankfurter Allee Süd an agency was contracted by the public sector in order to coordinate measures. According to § 157 Federal Building Code the municipality is allowed to assign redevelopment duties to contractors. The contractor's office, the "redevelopment agency" (Sanierungsbeauftragter), was located in Kaskelkiez during the whole time under redevelopment legislation, thus being in close contact with the different actors living and working in the area.

Another institution had an important role during the redevelopment of the area: The "tenant consultation service" (Mieterberatung) was responsible for preventing or mitigating effects of negative impact of redevelopment measures on individuals living and working in the area (e.g. residents have to move out temporarily due to drastic refurbishment or businesses have to be relocated).

Also the providers of social and cultural infrastructure (for example Sozialdiakonie) got involved in the redevelopment process. They were important partners to both the residents and the public actors, for example being important institutions for social neighbourhood work and being partners that could apply independently for public refurbishment funding. The "Alte Schmiede" and the kindergarten in Pfarrstraße are two of these providers in Kaskelkiez.

Compared to Frankfurter Allee Süd the actors' group of the owners was structured differently. In Kaskelkiez the owners' structure was and is small-grained. There are a lot of individual real estate owners (usually one plot one owner) and only one owner (WBG Lichtenberg/HOWOGE) owns a larger portion of plots and buildings. The fact of small grained ownership in Kaskelkiez resulted in a weaker role of the actors' group "owners" than this group had in Frankfurter Allee Süd.

Up to today participation structures and measures in Kaskelkiez were manifold and went beyond the obligatory participation described above. The engagement in citizens' initiatives, competitions and planning workshops prove the good cooperation and participation concept in Kaskelkiez.<sup>33</sup> Some citizens' initiatives were engaged in single issues (e.g. the saving of the hinged pillars of a replaced cast-iron bridge crossing Stadthausstraße or the location of the "Linienverzweiger" - a former distribution box for telephone cables - as a kiosk for small exhibitions at Tuchollaplatz). Planning competitions happened with the participation of the residents (e.g. the art competition for redesigning the railway underpasses with light effects). Numerous planning workshops were organised for citizen participation, often together with children (e.g. like the planning of the playground in Kernhofer Straße 8/10). Beside these measures also a "redevelopment newspaper" (Sanierungszeitung) with information about actual planning and actions was published regularly.

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<sup>33</sup> Bezirksamt Lichtenberg von Berlin, Abteilung Stadtentwicklung, Stadtplanungsamt (2007): pp. 63

According to these structures one can summarise that the following actors held strong roles in the planning processes of Kaskelkiez:<sup>34</sup>

- the district office (Bezirksamt), represented by the urban planning department (Stadtplanungsamt),
- the senate department,<sup>35</sup>
- the redevelopment agency (contracted by the senate department),
- the residents,
- the tenant consultation service.

## 6 The IUDCs

### 6.1 Overview of Planning Concepts and Planning Documents

Below an excerpt of the most important informal planning concepts and planning documents for the case study area is given in chronological order.

"Basics-Bereichsentwicklungsplanung"<sup>36</sup> Lichtenberg (Grundlagen-BEP), 1991

This document is an integrated concept that was elaborated for the whole area of the former district Lichtenberg (before Lichtenberg and Hohenschönhausen were merged to one district called "Lichtenberg") in 1991. The former district Lichtenberg included the case study area. The specifications for the case study area are quite rough; they were included in the more detailed plans for the area that were elaborated in the following years.

Inventory of Post War-Large Housing Areas Berlin-Ost (Nachkriegssiedlungen Berlin-Ost, Bestandsübersichten), 1992

In this document detailed information about the conditions in the large housing areas of Berlin-East is given. In the early 1990ies it served as an important tool in order to compare and evaluate the living conditions in the large housing estates and to develop a strategy for their further development.

Urban Development Survey Frankfurter Allee Süd (Städtebauliche Untersuchung Frankfurter Allee Süd), 1993

This planning concept is the first informal and integrated urban development concept, which was elaborated for the neighbourhood Frankfurter Allee Süd after reunification. It considered a broad deal of the elements of sustainable integrated urban development,

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<sup>34</sup> The different roles were also discussed with Frau Spiewek and Herr Rattke, both in charge of the area since the early 1990ies. Interview 8.10.2010 (Flecken, Richter, Spiewek, Rattke)

<sup>35</sup> Compare footnote 24: changing structure of senate departments between 1996 and 2006

<sup>36</sup> See chapter 1.5 for the term "Bereichsentwicklungsplanung"



which were introduced in chapter 1.5. The Planning document comprises a survey of the situation and a strategy of action. It also lists planned measures.

#### Preparatory Investigations for the Area Kaskelkiez (Vorbereitende Untersuchungen Berlin-Lichtenberg, Bereich Kaskelstraße), 1993

This planning concept is the first IUDC, which was elaborated for the neighbourhood Kaskelkiez after reunification. It was elaborated because the neighbourhood was proposed among others in Berlin to be evaluated towards the background of "promotion of urban development" (Städtebauförderung).<sup>37</sup> The Federal Building Code regulates by means of "redevelopment legislation" all matters concerning the planning and conducting of urban redevelopment processes.<sup>38</sup> According to § 141 Federal Building Code "Preparatory Investigations" include a detailed inventory as an evaluation base for the need for redevelopment, the social, structural and urban planning conditions and context, the general aims to be pursued and the general feasibility of the redevelopment measure. The aims to be pursued are passed in the redevelopment statute (Sanierungssatzung) according to § 142 Federal Building Code. The document of the Preparatory Investigations includes an integrated urban development plan (Rahmenplan), which serves as a basis for action that was harmonised between the planning actors.

The regular transaction statutes (annual, every two years) of urban redevelopment (Stand der Sanierungsdurchführung) in Berlin, resp. Kaskelkiez are also an important document for the case study because details of development and strategic considerations can be found here.

#### Social Study (Sozialstudie), 1997, 2000, 2003 and 2007

Between 1997 and 2007, during the phase of urban redevelopment, altogether four "Social Studies" were commissioned by the district of Berlin-Lichtenberg to analyse the development of the social structure in conjunction with the rental market within the redevelopment area. Each study contains empirical surveys of living conditions and demographic development since the mid-1990ies. Information about implications of

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<sup>37</sup> The Federal Government of Germany supports the creation of sustainable urban structures with urban development promotion programmes. To do this, the Federal Government gives the federal states financial assistance, called "promotion of urban development" ("Städtebauförderung").

<sup>38</sup> During conducting urban redevelopment processes the application of several judicial regulatory measures is possible, as so the duty for owners, tenants, leaseholders and any other persons authorised to possess or use a plot or a building to provide information according to § 138 Federal Building Code, the obligation for owners to obtain a permit concerning construction of physical structures, fundamental change or removal of physical structures, subdivision of plots, legal procedures as purchase, sale and the conclusion of a long-term use and occupation contract according to §§ 144 and 145 Federal Building Code. Further regulatory measures of the municipality are concerning land reallocation including the acquisition of land, relocating residents and businesses, groundworks and the construction and modification of local public infrastructure according to § 147 Federal Building Code. Finally regulatory measures for constructional measures, overview of costs and financing, reparations for changes to public utility installations and exemption from charges and expenses according to §§ 148-151 Federal Building Code can be implemented. (Federal Ministry for Regional Planning, Building and Urban Development 1993 (b), p. 59)

redevelopment measures is provided, social objectives of the redevelopment process are updated and a socially acceptable cap of rent amounts for the phase of redevelopment is elaborated. Beyond that the last report in 2007 also contains future tasks and proposals for a social post-rehabilitation support for the time after redevelopment.<sup>39</sup>

Preservation Statute Kaskelstraße/Victoriastadt (Erhaltungsverordnung), Manual for Preservation Statute Kaskelstraße/Victoriastadt (Handbuch zur Erhaltungsverordnung Kaskelstraße/Victoriastadt in Berlin-Lichtenberg), 1997

In 1998 a preservation statute according to § 172 Federal Building Code was passed for Kaskelkiez. This preservation statute is necessary to receive funding by the programme "Protection of Urban Architectural Heritage" (Städtebaulicher Denkmalschutz), which is also a federal-state programme for promotion of urban development (Städtebauförderung). The programme aims at the protection and development of areas that are characterised by historic ensembles. The manual is a report that serves as professional basis for the issuing of the Preservation Statute Kaskelstraße/Victoriastadt. It contains an inventory survey of the historical spatial structure and the buildings in the area. Detailed recommendations are made for the refurbishment of residential buildings and worth-preserving adjoining buildings according to issues of monument conservation. Further recommendations are given for the construction of new buildings or the conversion of attics, including examples of permitted measures.

Concept of Urban II - Promotion Area Ostkreuz (Urban II-Fördergebiet Ostkreuz), 2001

Urban II is the Community Initiative of the European Regional Development Fund (ERDF) for sustainable development in the socially and economically overstrained urban districts of the European Union for the period 2000-06. The promotion area is located around the station Ostkreuz; the neighbourhoods Frankfurter Allee Süd and Kaskelkiez are located centrally in this area. The strategy that tackles social and economic problems in the area is an integrated strategy. It embraces the dimensions of spatial, social, economic and ecological urban development. Thus numerous measures were funded by Urban II between 2001 and 2008.

Integrated Urban Development Concept Ostkreuz (Integriertes Stadtteilkonzept Ostkreuz), 2002

The IUDC Ostkreuz of the year 2002 was at the same time a competition entry to the federal competition Urban Restructuring East (Bundeswettbewerb Stadtumbau Ost). In 2002 the federal government announced a new urban development promotion programme, the federal-state programme Urban Restructuring East (in the new federal states). It aims at creating sustainable urban structures in areas affected by significant urban function losses; the principle indication of such function losses is permanent oversupply of vacant dwellings or derelict sites. According to § 171b (2) Federal Building Code an IUDC is necessary for areas where urban restructuring measures are conducted. The urban

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<sup>39</sup> Bezirksamt Lichtenberg von Berlin, Abteilung Stadtentwicklung, Amt für Planen und Vermessen, Fachbereich Stadtplanung - Stadterneuerung (2007): p. 4

restructuring area Ostkreuz<sup>40</sup> includes the neighbourhoods Frankfurter Allee Süd and Kaskelkiez.

Local Development Planning Alt-Lichtenberg (Bereichsentwicklungsplanung Alt-Lichtenberg), 2005

The IUDC includes the area of the former district of Lichtenberg and thus the case study area. Because of the large size of the area the specifications for the case study area are rather rough. However, the main objectives were included in more detailed concepts, like the IUDC for Ostkreuz in 2006.

Integrated Urban Development Concept Ostkreuz (Stadtteilentwicklungskonzept Ostkreuz), 2006

The IUDC Ostkreuz 2006 is an updating of the IUDC of 2002. The updating became necessary because important context indicators like demography and economic development had changed drastically in some neighbourhoods of Ostkreuz, especially in the neighbourhoods of Warschauer Straße, Boxhagener Platz, Traveplatz and Kaskelkiez. These neighbourhoods became attractive areas to a large number of new, especially young, residents and to new businesses, especially of the creative sector.

The most important IUDCs for the case study area are the

- Urban Development Survey Frankfurter Allee Süd, 1993
- Preparatory Investigations for the Area Kaskelkiez, 1993
- Concept of Urban II - Promotion Area Ostkreuz, 2001
- Integrated Urban Development Concept Ostkreuz, 2002
- Integrated Urban Development Concept Ostkreuz, 2006.

They should form the detailed basis of development for the respective following years, being harmonised concepts of the actors in the area (see chapter 5). In the following sub-chapters these five concepts shall be introduced. The respective development goals, spatial concepts, planned measures and financial concepts will be described.

## 6.2 Urban Development Survey Frankfurter Allee Süd (Städtebauliche Untersuchung Frankfurter Allee Süd), 1993

### Development Goals

The recognition value and identification of the residents with their neighbourhood shall be improved through characteristic design of buildings and surrounding space. A distinctive

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<sup>40</sup> The urban restructuring area is larger than the Urban II-area Ostkreuz. The former also includes the Wilhelminean neighbourhoods around Warschauer Straße, Boxhagener Platz and Traveplatz.

road- and path network and a well-structured residential surrounding create an urban structure as a frame for single building measures. Attractive and smaller units of free space for various uses have to be created. The usage of potentials for business setups in existing industrial and commercial buildings needs to be enhanced. New standards for residential buildings have to be adapted, including standards attending to the demographic development, closure of block edges by building measures

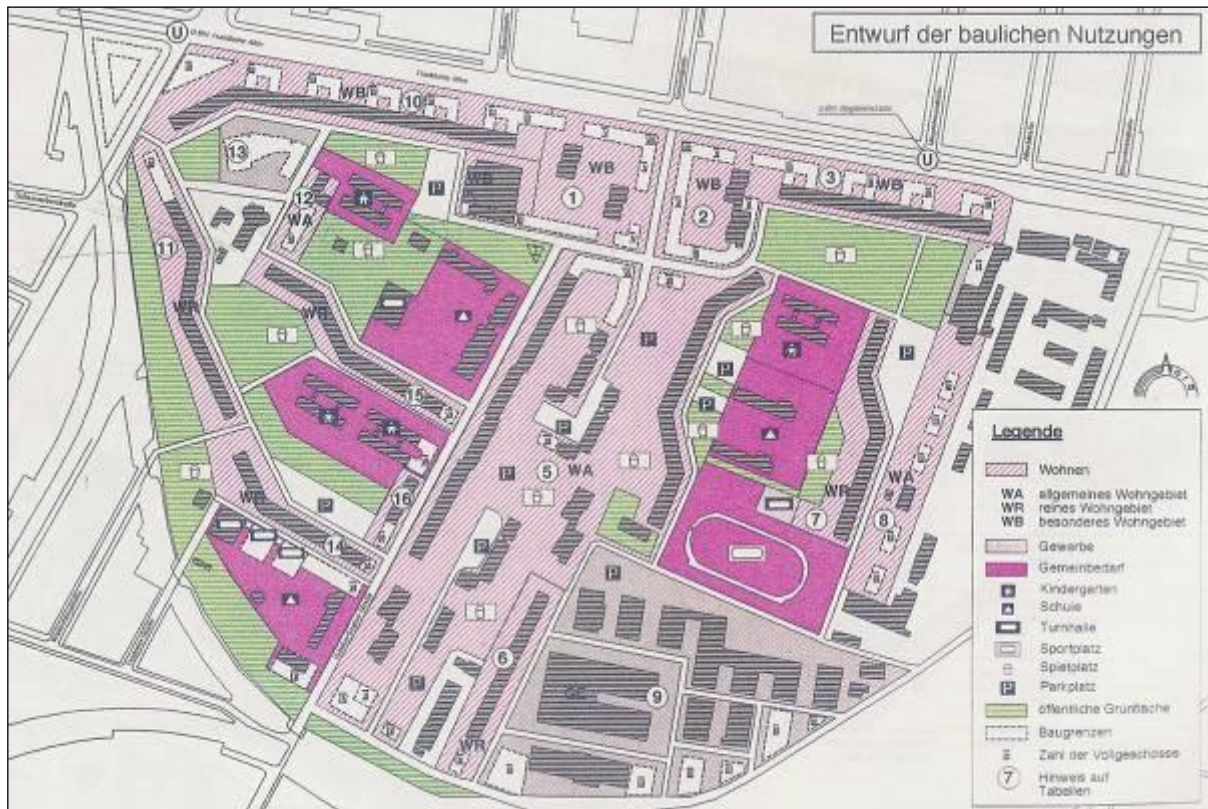


Fig. 35: Integrated Development Plan Frankfurter Allee Süd 1993

### The Spatial Concept

The neighbourhood is predominantly designated as residential area. In some parts of the area mixed uses are intended. The spatial structure and the improvement of the amenity values of open and green spaces shall be developed through building boundaries and the forming of yards as calmed areas. A detailed urban design scheme is presented for the designation of redensification potentials.

- residential buildings: Roofs and façades have to be refurbished, passage ways and entrances need a new design. The greening of roofs and façades is intended. The planning of the energy-efficient refurbishment took orientation in state conditions and measures of a special programme for reconstruction/modernisation (Inst/Mod-RL 94). The perimetrical walls got a thermal insulation (6-8 cm), thus concrete reconstruction should be prevented. In the course of Inst/Mod-RL 94, a number of complex reconstruction measures (renewing and thermal insulation for hot water- and circulation

pipes, thermal insulation of roofs, repair/replacement of windows) were implemented.<sup>41</sup>

- technical infrastructure: The plan was to extend and to modernise the supply of the area with electric energy, heating, drinking water, sewage pipes and media for telecommunication. The municipal heating system required a modernisation of its feed points as well as an improved thermal insulation for heating pipes. The telecommunication network had to be modernised and developed further.

Green spaces have to be enhanced. Road space and free spaces need to be restructured through planting of trees. A new green corridor along the tracks shall be created and the building of new playgrounds and tenant's gardens is intended. A new parking space management scheme is presented as well as new construction of garages. A new path network and reduced speed zones are to be implemented. Outdoor areas for schools and kindergartens have to be greened and partly also extended.

New businesses can be located in new buildings, in ground floors or in a new passage way. In the long term the reduction of industrial uses in the eastern and south eastern part of the area are intended.

#### The Planned Measures

Type of Measure	Content of Measure	Costs of Measure
refurbishment of residential buildings	- "constructional measures" - renovation and design of façades including thermal insulation - reconstruction of balconies, partly including glazing - renovation of windows - (partly) reconstruction of heating system: one-pipe to double-pipe	no costs specified
	- refurbishment and renewal of roofs - increase of thermal insulation	all buildings of WBG-Lichtenberg: 639.000 EUR (1,25 Mio. DM)
	roof greening	all buildings of WBG-Lichtenberg: 1,28 Mio. EUR (2,5 Mio. DM)
	passage ways, entrances, foyers, accesses to tenant's gardens	1,28-2,56 Mio. EUR (2,5-5 Mio. DM)

<sup>41</sup> Inst/Mod-RL 94 (1993), chapter 5 and Appendix 3

	breakthrough of an additional passage way in the elongated 11-storey building in Schulze-Boysen-Straße including the preparation of a commercial use along the passage way	0,13 Mio. EUR (66.500 DM)
refurbishment of technical infrastructure	not listed as a measure but mentioned in concept	no costs specified
enhancement of private residential surrounding (open space)	greenery, playgrounds, tenant's gardens, paths, parking lots, new waste separation system	on private property land of WBG-Lichtenberg: 2,56 Mio EUR (5 Mio. DM)
enhancement of public green and open space	<ul style="list-style-type: none"> <li>- neighbourhood-wide model of "urban forest" (grove) for the creation of structured spatial</li> <li>- planting of different avenue trees for accentuation of road spaces</li> <li>- creation of squares as meeting places and calmed zones</li> </ul>	no costs specified
renewal of road space	<ul style="list-style-type: none"> <li>- implementation of a neighbourhood-wide foot path network</li> <li>- reduced speed zones</li> <li>- extension of number of parking lots through reasonable structuring of bigger parking places, through exhausting the potential of cross parking along the streets, building of 90 additional garages and one multi-storey car park</li> </ul>	no costs specified
improvement of social and cultural infrastructure	<ul style="list-style-type: none"> <li>- refurbishment of buildings</li> <li>- adaptation of buildings to new educational system</li> <li>- designing of the outdoor areas of schools and kindergartens</li> <li>- extension of outdoor area of elementary school Schulze-Boysen-Straße 38 due to intended increase of number of pupils</li> </ul>	no costs specified

development of commerce and business	not listed as a measure but mentioned in concept	no costs specified
redensification potentials	<ul style="list-style-type: none"> <li>- construction of additional commercial buildings as noise protection directly in front of the residential buildings along Frankfurter Allee</li> <li>- closure of several block edges to create clearly defined yards</li> <li>- construction of new residential buildings (townhouses) along Albert-Höbler Straße in the eastern part of the neighbourhood</li> </ul>	no costs specified
social measures and participation	no social measures specified (apart from constructional measures regarding social infrastructure), participation measures only generally mentioned	no costs specified

### The Financial Concept

In the Planning Document the listed measures are assigned to responsible bodies, which shall initiate further detailed planning and the implementation of measures. The two main bodies named are Senate Department for Construction and Housing and the housing company WBG Lichtenberg. Mostly both are assigned to initiate the measures - regardless of whether the measures shall be implemented on private or public property land. In another list some - but not all - of the measure costs are specified and assigned to responsible bodies:

The Senate Department for Construction and Housing shall allocate the following funding amount between the years 1993 and 1996: 12-14,5 Mio. DM (ca. 6-7,5 Mio. EUR) for enhancement of private residential surrounding and of residential buildings (e.g. passage ways, entrances), roof greening, enhancement of public green and open space.

The housing company WBG Lichtenberg shall invest about 3 Mio. DM (ca. 1,5 Mio. EUR) for the refurbishment of roofs and for the new construction of garages. All other private costs that need to be invested by the WBG Lichtenberg are not documented. There are no costs listed that apply to the housing stock of the housing cooperative WG Vorwärts.<sup>42</sup>

Though the integrated concept considers almost completely integrated elements (apart from specifying social and participation measures) the financial concept only covers a

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<sup>42</sup> Büro für Stadt-Landschaft (1993), p. 74

selection of measures. This fact shows that only for the cost-specified measures financial resources could be clarified during the elaboration of the document. Most of the costs were to be covered by the so called "Residential Surroundings Programme" (Wohnumfeldprogramm)

Below the essentials of financing the integrated urban development measures in large housing estates in the 1990ies are presented:

In 1992, the city of Berlin commissioned surveys to analyse the stock of 273.000 housing units in prefab buildings in East-Berlin. The studies revealed that the constructions' substance was stable and that the total costs for adaptation of the prefab housing stock to competitive standards on the housing market would require at maximum one third of the amount necessary for the construction of comparable new housings. On an average, the total cost for complete rehabilitation was calculated at around €400/m<sup>2</sup>. That figure included costs for the intended energy-efficiency improvements, in the amount of ca. €250/m<sup>2</sup>. The projected total expenditure for the modernisation of all prefab housing units worthy of preservation was calculated at ca. 6.5 billion Euros.

On the basis of this survey, the Berlin Senate initiated a public financing programme for the large prefab building housing estates, mainly based on the obligatory use of the federal energy-improvement programmes of the KfW (Kreditanstalt für Wiederaufbau), the state-owned German development bank:

The housing companies and cooperatives were obliged to raise part of the investment volume themselves and to take out subsidised interest-rate loans for the energy-efficiency improvements from the federal programme of KfW, available just to an amount of ca. €250/m<sup>2</sup>. Berlin became involved only in cases, where expenditures per housing unit of €20.000 were exceeded. This special Berlin support programme provided term-limited interest subsidies.

Financing of the total investment in the 1995-2005 period can be broken down as follows:

- Total investment for measures under this strategy (260.000 units) was ca. 5.5 billion Euros
- Federal funds issued from KfW for 260.000 units reached an estimated total of ca. 4.5 billion Euros
- Berlin supplied interest subsidies for 60.000 units in a total of ca. 0.5 billion Euros
- housing companies/cooperatives had to bear their part at a total of ca. 0.5 billion Euros.

Besides, the housing companies and cooperatives had to finance by themselves investments in the housing stock in the period before 1995 and after 2005. Furthermore, they had to finance "additional measures" to improve housing quality that were not eligible for subsidies (addition of lifts to the 5-storey buildings, floor plan changes, addition of balconies etc.), so that the calculated average value of €400/m<sup>2</sup> had been exceeded in certain cases.



### 6.3 Preparatory Investigations for the Area Kaskelkiez (Vorbereitende Untersuchungen Berlin-Lichtenberg, Bereich Kaskelstraße), 1993

#### Development Goals

The conditions of all spheres of everyday life for residents and the employees have to be improved. The urban pattern of the neighbourhood shall be restored and its identity as an architectural heritage shall be maintained. The refurbishment of the building stock needs to consider the resident's interests and issues of monument conservation. The creation of new green spaces, playgrounds and kindergartens is necessary. The supply of convenience goods has to be improved.



Fig. 36: Integrated Development Plan Kaskelkiez 1993

#### The Spatial Concept

The area is designated as residential area, interspersed with small-scale commercial use. Small business and trade are located in ground floors. A service and shopping centre is planned west of the investigation area. The blocks 46 and 47, parallel to the S-Bahn tracks, are dedicated for mixed uses. The block edges at traffic nodes (Marktstraße, Karlshorster Straße) are dedicated for commercial use only. The maintenance of small-scale business in ground floors has to be secured. A relocation of businesses with high demand for land is inevitable.

Existing buildings are to be refurbished according to the issues of monument conservation. Flats have to be modernised to an affordable standard.

The neighbourhood has to be connected to the district heating network, gas pipelines need to be reconditioned.

New green space needs to be created and existing to be designed. The greening of (private) courtyards is intended as well as the unsealing of open spaces. Trees have to be planted in the road space.

Comprehensive constructional measures on roads and paths are necessary. A neighbourhood-wide traffic calming and the designation of play streets are intended. Cars need to be banished from the courtyards (in the long-term)

New construction of social infrastructure facilities in all category groups is required. Furthermore the development of small-scale facilities in the field of social-medical care has to be promoted.

#### The Planned Measures

Type of Measure	Content of Measure	Costs of Measure
modernisation and refurbishment of residential buildings	<ul style="list-style-type: none"> <li>- new heating installation, amalgamation of flats</li> <li>- installation of new windows with noise and heat insulation, thermal insulation of façades, roofs, gables and cellars</li> <li>- renewal stucco façades and balconies</li> <li>- creation of indoor bathrooms</li> <li>- renewal of stairs</li> <li>- blocks are categorised according to the priority of refurbishment and renewal need (highest priority: blocks 45, 46 and 57)</li> </ul>	80,27 Mio EUR (156,99 Mio. DM), of which 30,38 Mio. EUR (59,42 Mio. DM) are public funding
refurbishment of technical infrastructure	<ul style="list-style-type: none"> <li>- connection to the district heating network, construction of a central heating pipe from Nöldnerplatz through Kaskelstraße to the planned service centre (office buildings) west of the neighbourhood</li> <li>- renewal of several pipes and cables in the whole neighbourhood</li> </ul>	no costs specified
enhancement of public green	- new green space (6.000	2,17 Mio. EUR (4,24 Mio. DM),

and open space	<p>sqm), enhancement of existing green space (4.000 sqm), new playgrounds (2.540 sqm), enhancement of existing playgrounds (385 sqm), new design for public square Tuchollaplatz, new green corridor Hauffstraße (3.300 sqm), new front gardens (1.900 sqm), enhancement of existing front gardens (1.000 sqm), new trees (100),</p> <ul style="list-style-type: none"> <li>- green space concept for semi-public areas inside the blocks 49, 54 and 55</li> </ul>	100 % public funding
renewal of road space	<ul style="list-style-type: none"> <li>- neighbourhood-wide traffic calming (30 km/h) and two play streets in Kernhofer Straße and Geusenstraße</li> <li>- reduction of the width of streets in favour of new parking lots for cross parking</li> <li>- construction of a new street "Schreiberhauer Straße" as north-south connection along the planned service centre (office buildings) west of Kaskelkiez</li> <li>- construction of a new path along "Kuhgraben", leading through the blocks 52, 53 and 54, parallel to Kaskelstraße</li> <li>- construction of a new pedestrians' tunnel from Kaskelstraße to Lückstraße</li> <li>- redesign of entrance areas of S-Bahn stations Nöldnerplatz and Rummelsburg (for each considering an additional entrance)</li> </ul>	4,2 Mio. EUR (8,21 Mio. DM), 100 % public funding
improvement of social and cultural infrastructure	summary: two new kindergartens (213 places), one new elementary school (dual track),	20,49 Mio. EUR (40,08 Mio. DM), 100 % public funding

	<p>refurbishment of two existing kindergartens, (75 places), one new youth club, one new senior meeting place</p> <p>in detail:</p> <ul style="list-style-type: none"> <li>- construction of an elementary school in Hauffstraße</li> <li>- new construction of two kindergartens in Hauffstraße and in Spittastraße 36/38</li> <li>- construction/establishment of youth/recreation facilities in Nöldnerstraße 6/7 and in Kaskelstraße/Spittastraße</li> <li>- construction of a small medical centre in Türschmidtstraße 7/8 and a pharmacy in Kaskelstraße 32, maintenance of two supervised residential groups of disabled adults in Kaskelstraße 50 and Pfarrstraße 140</li> <li>- provision of rooms for art studios in vacant commercial premises, such as in Nöldnerstraße 15/16 or Kaskelstraße 25</li> </ul>	
development of commerce and business	modernisation and renovation of commercial units: same measures as in residential units	8,1 Mio EUR (15,85 Mio. DM), of which 4,86 Mio. EUR (9,51 Mio. DM) are public funding
regulatory measures	land acquisition, support of resident moving, minimum renovation of vacant flats, exposure of plots	12,1 Mio. EUR (23, 66 Mio. DM), 100 % public funding
relocation of companies	four companies, one supermarket	2,05 Mio. EUR (4 Mio. DM), 50 % public funding
redensification potentials	<ul style="list-style-type: none"> <li>- 38 vacant lots between existing buildings</li> <li>- construction of new buildings: 332 new residential units planned along today's Schreiberhauer Straße (in</li> </ul>	<p>no costs specified</p> <p>50,92 Mio. EUR (99,60 Mio. DM), 100 % public funding was intended</p>

	some buildings commercial units in ground floor)	
organisational and social measures	redevelopment agency, tenant consultation service, social plan, public relations	3,37 Mio. EUR (6,60 Mio. DM), 100 % public funding
generation of surveys, preparatory planning concepts	preparatory survey for redevelopment area, social plan, binding land-use plans, block concepts, spatial competitions, traffic survey	0,51 Mio EUR (1 Mio. DM), 100 % public funding

Total costs public funding: 130,57 Mio EUR (255,37 Mio. DM)

Total private costs (only cost-specified measures): 54,15 Mio EUR (105,91 Mio. DM)

Total sum (only cost-specified measures): 184,72 Mio EUR (361,28 Mio. DM)

### The Financial Concept

As stated before the intention of the Preparatory Investigations was to analyse if the formal designation requirements of an area as redevelopment area are met (see chapter 4.3.1). The financial concept of this document assumes that the area Kaskelkiez will be formally designated as redevelopment area.

The fact that an area is formally designated as redevelopment area allows funding from the programmes of "promotion of urban development" (Städtebauförderung). It works as follows. The Federal Government gives the federal states financial assistance, called "promotion of urban development". This assistance is supplemented by federal state and local authority funds. The Preparatory Investigations for Kaskelkiez were elaborated towards the background of the "promotion of urban development" programme "urban redevelopment".<sup>43</sup>

In the Preparatory Investigations the total amount of costs is estimated at about 460 Mio. DM (ca. 235 Mio. EUR), including the non-specified private costs:

- 127,82 Mio. EUR (250 Mio. DM) modernisation and refurbishment of residential buildings (historic buildings)
- 61,36 Mio. EUR (120 Mio. DM) construction of new residential buildings
- 10,26 Mio. EUR (20 Mio. DM) improvement of commercial units
- 30,68 Mio. EUR (60 Mio. DM) improvement (construction) of social and cultural infrastructure
- 5,11 Mio. EUR (10 Mio. DM) improvement of transport infrastructure/road construction

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<sup>43</sup> Detailed information about objectives, procedure and financing of urban redevelopment measures in English language can be found in: Federal Ministry for Regional Planning, Building and Urban Development Germany: law and Practice of Urban Development in the Federal Republic of Germany, Bonn 1993

- costs for technical infrastructure (supply systems) and costs for environmental measures were listed as "not known yet"

The period of public measure realisation is scheduled for 15 years (a total of 235,19 EUR (460 Mio. DM), first five years about 53 %, second five years about 33 %, last five years about 14 %).

All in all the Land Berlin would carry about 50 % of the total costs. It was stated that a large part of private investments needed to be undertaken urgently regarding refurbishment of the housing stock and commercial space.

#### 6.4 Concept of Urban II-Promotion Area Ostkreuz (Konzept zum Urban II-Fördergebiet Ostkreuz), 2001

Before going into detail about the IUDCs that followed after the year 2000, a short overview of some significant - mostly private - developments in the area shall be given. As so, a huge part of the former industrial real estate west of Kaskelkiez was cleared in the first half of the 1990ies. A new office building was constructed for the BfA - Federal Insurance Agency for Employees (Bundesversicherungsanstalt für Angestellte) which also used the remaining part of the former premises of Knorr-Bremse/VEB Messelektronik. East of this development Schreiberhauer Straße was constructed as north-south connection. Along Schreiberhauer Straße also a new shopping centre and new residential estates were constructed. Today between Schreiberhauer Straße and the residential estates of Kaskelkiez still remains a huge wasteland area waiting for development.

##### Development Goals

The Urban II area Ostkreuz includes the case study area as well as some other neighbouring quarters. (see map below) These quarters, covering an area of 425 ha, are located in the districts of Lichtenberg and Friedrichshain. In the area Ostkreuz the European programme URBAN II works under the motto "Remove Barriers". Its goals are linking the Ostkreuz area with its neighbouring quarters, as well as connecting the neighbourhoods within the Urban II area.

The goals are:

- promotion of economic development and creation of jobs and educational facilities,
- improvement of social living conditions,
- improvement of environmental conditions and more careful use of resources,
- promotion of equal opportunities between men and women, as well as in access of all social groups to education and work,
- improvement in situation for children, young people and families,
- reduction of ethno-cultural differences and
- security and prevention of violence.



Fig. 37: Urban II programme area "Around Ostkreuz" 2001

### The Concept and Measures

Unlike the spatial concepts for Frankfurter Allee Süd and Kaskelkiez in 1993 this concept for the Urban II - area Ostkreuz builds on the existing spatial concepts (concerning the planning of land uses etc.) that are applied in the area. The Urban II-concept is primarily a measurement concept that aims at the promotion and co-promotion of measures that are for the most part already planned within the context of other development plans (like plans for redevelopment) and is supplemented by a greater number of non-constructional measures. The measures are structured under the following three thematic priorities:

- social, cultural and communicate measures (red dots)
- spatial-physical and ecological measures (green dots)
- employment and economic measures (yellow dots)

The different measures are selected, steered and evaluated by an institutional setup which consists of three bodies: The Monitoring Committee<sup>44</sup>, the Steering Group<sup>45</sup> and the

<sup>44</sup> Members of the Monitoring Committee are: representatives of the Berlin Senate and district administrations, the federal ministry, the European Commission and representatives concerned with equal opportunities and the environment. The Monitoring Committee checks the selection criteria for project funding, the progress of the projects and the results of developments.

<sup>45</sup> The Steering Group is the decision-making body. It oversees the programme's progress under the leadership of the Berlin Department of Urban Development and decides on all questions concerning the running of the programme. It meets at least twice a year. Its sittings are usually coordinated with the Monitoring Committee.

Working Groups. The latter have been set up for each of the thematic priorities.<sup>46</sup> The different measures are selected by the Working Groups, which examine the proposals and appraise the projects submitted. Applications for measures can be presented by all actors of the Urban II-area, like residents, citizen initiatives, businessmen and district authorities.

### The Planned Measures

Type of Measure	Content of Measure	Costs of Measure
employment and economic measures	establishment of a "German-Russian School Radio" at bilingual elementary school Mildred-Harnack-School	25.467 EUR Urban II 8.533 EUR supplementary public funding
	neighbourhood studios Schulze-Boysen-Straße: qualification esp. of long-term or young unemployed persons in technical skills, such as metal and wood working or print workshop	75.000 EUR Urban II 25.000 EUR supplementary public funding
	"Ladenleben": strategy against vacancy of commercial premises in Kaskelkiez and Weitlingstraße	150.000 EUR Urban II 54.598 EUR private funding
	"BLO-Ateliers": reuse of railway property (engine sheds) east of the neighbourhood as space for art studios and other cultural businesses	204.319 EUR Urban II 69.711 EUR supplementary public funding
	project "Architecture and School" at several schools also in Frankfurter Allee Süd: improvement of awareness of pupils for their built environment	201.331 EUR Urban II 136.193 EUR supplementary public funding
spatial-physical and ecological measures	"Grünzug Frankfurter Allee Süd": creation of a green corridor from Frankfurter Allee/Buchberger Straße to Schulze-Boysen-Straße	556.229 EUR Urban II 187.432 EUR supplementary public funding
	renewal of façade of sports	96.335 EUR Urban II

<sup>46</sup> Each team is consisting of representatives of the Berlin Department of Urban Development, the district administrations, the project organiser, the inhabitants and other relevant bodies.



	hall Tasdorfer Straße	32.112 EUR supplementary public funding
	greening of Schulze-Boysen-Straße, restructuring as residential street through extension of pavements (less attractive as through road)	54.205 EUR Urban II 18.068 EUR supplementary public funding
	creation of a green corridor along Hauffstraße	295.000 EUR EFRE 147.502 EUR Urban II 105.522 EUR supplementary public funding
	construction of a new playground in Hauffstraße 21	37.500 EUR Urban II 25.000 EUR EFRE 18.016 EUR supplementary public funding
	redesign of entrance area of S-Bahn station Nöldnerplatz	63.795 EUR Urban II 92.000 EUR supplementary public funding
	redesign of Nöldnerplatz	985.000 EUR EFRE 413.525 EUR Urban II 1.057.841 EUR supplementary public funding
social, cultural and communication measures	construction of a new neighbourhood centre in Schulze-Boysen-Straße ("Kiezspinne")	1.500.000 EUR Urban II 664.679 EUR supplementary public funding
	"¼ auf 5 Wegen": artistic illuminating installation at five rail track passageways as better connection to the surrounding areas of Kaskelkiez	211.000 EUR Urban II 202.776 EUR supplementary public funding
	reconstruction of youth and community centre "Alte Schmiede" Spittastraße	1.279.500 EUR local public funding 195.000 EUR Urban II
	reconstruction and refurbishment of the "Stadthaus" Türschmidtstraße to a local museum and neighbourhood meeting place	3.127.000 EUR EFRE 107.230 EUR Urban II 37.995 EUR supplementary public funding
	"Der Kleine Urbanfonds": 240.000 EUR for citizens' projects, unbureaucratic and fast granting of funds	179.408 EUR Urban II 59.802 EUR supplementary public funding

## Breakdown of Finances by Priority Area<sup>47</sup>

Priority Area	Total Cost	ERDF Contribution	Public aid (EC + others)
1 Employment policy and overcoming economic barriers	4.568.000	3.426.000	4.340.000
2 Overcoming urban and ecological barriers	4.843.952	3.632.488	4.843.952
3 Overcoming social, ethnic, cultural and communication barriers	9.373.540	7.028.264	9.373.540
999 Technical Assistance	1.379.667	1.033.000	1.379.667
<b>Total</b>	<b>20.165.159</b>	<b>15.119.752</b>	<b>19.937.159</b>

### The Financial Concept

The financial concept builds on the promotion programme of Urban II. Urban II is the Community Initiative of the European Regional Development Fund (ERDF) for sustainable development in the socially and economically overstrained urban districts of the European Union for the period 2000-2006. The ERDF finances up to 75 % of the total cost of a programme if the urban area is a so called "objective 1 - region", meaning that its development is lagging behind. As the Eastern part of Berlin - where Ostkreuz is located - is objective-1 region the area was eligible for 75 % funding.

The Land Berlin received 15,12 Mio Euros from the ERDF-Fund. Additionally 7,1 Mio Euros were financed by federal funds, by the Land Berlin and by the districts. Also 90.000 Euros of private money was used in order to realise all measures that cost all in all 22,2 Mio. Euros.

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<sup>47</sup> [http://ec.europa.eu/regional\\_policy/country/prordn/details.cfm?gv\\_PAY=DE&gv\\_reg=ALL&gv\\_PGM=311&LAN=7&gv\\_PER=1&gv\\_defL=7#tab](http://ec.europa.eu/regional_policy/country/prordn/details.cfm?gv_PAY=DE&gv_reg=ALL&gv_PGM=311&LAN=7&gv_PER=1&gv_defL=7#tab)

## 6.5 IUDC Ostkreuz (Integriertes Stadtteilkonzept Ostkreuz), 2002

### Development Goals

This IUDC for the area Ostkreuz - that includes the neighbourhoods Frankfurter Allee Süd and Kaskelkiez - was elaborated towards the background that the area was affected by significant urban function losses due to decreasing population numbers. The analyses of the area should survey whether the area was eligible for the then new federal-state programme "Urban Restructuring East" (Stadtumbau Ost).

The overall approach of the concept was to strengthen the various subareas - mostly living neighbourhoods - of the area Ostkreuz. It was stated that the subareas are to be developed according to their specific urban patterns and their land-use types. The mix of living, working, commerce and culture is oriented at the model of the traditional "European City". A particular focus lies on the stabilisation of living in the neighbourhoods, on the reuse of disused social infrastructure facilities and on the reclamation of road space and places as living space. All relevant actors and the public have to be involved with the aim of jointly developed attractive urban neighbourhoods.



Fig. 38: Integrated Development Plan Ostkreuz 2002

### The Spatial Concept

The Spatial concept of the area Ostkreuz underlines the different characteristics of neighbourhoods and their strengths in the promotion area. Different forms of dwelling and proprietary shall be promoted. Architectural heritage is to be strengthened and developed.

In Frankfurter Allee Süd the few remaining residential buildings need to be refurbished, after in 2000 the goals regarding energy-efficient refurbishment were intensified. In Kaskelkiez the refurbishment needs to be continued. The analysis of demographic figures and the housing situation resulted in the fact that no demolition of residential buildings needed to be undertaken in order to "adapt" the housing market.

As the financial promotion in the programme "Urban Restructuring East" is targeted at the public open space and the adaptation and enhancement of social and cultural infrastructure the analysis and the concept pay special attention to the respective action needs. In the concept it is stated that the qualification of public open space shall be based on local characteristics. The traffic development has to consider the improvement of quality of environment and living environment. In general traffic calming is intended. The revitalisation of disused social infrastructure facilities has to be based on an object- and area-related overall evaluation including a verified building- and financing concept.

On top of the concept regarding public space and social and cultural infrastructure some attention is paid towards the basic living services and convenience goods within easy reach of residential areas. They shall be secured by promoting small business.

#### The Planned Measures Frankfurter Allee Süd

Type of Measure	Content of Measure	Costs of Measure
refurbishment of residential buildings	- refurbishment and modernisation almost completed, no demolition of residential buildings due to demographic change necessary in the area	- /
refurbishment of technical infrastructure	- modernisation of the main pipes and distribution components completed	- /
enhancement of public green and open space	- continuation of tree planting in the whole area - creation of a green corridor from Frankfurter Allee/Buchberger Straße (1) leading to Schulze-Boysen-Straße/Tasdorfer Straße along the rail track and (2) as spacious cross-linking of the eastern part of the neighbourhood with Frankfurter Allee and the zoo "Tierpark Friedrichsfelde" - greening of Frankfurter Allee (central reserve)	- 215.000 EUR - 860.000 EUR (1) + 5,01 Mio. (2)  - 506.000 EUR
renewal of road space	- redesign of bottleneck passage at the railway underpass to Kaskelkiez (Schulze-Boysen-Straße - Schreiberhauer Straße/Pfarrstraße) - rearrangement of parking lots	- not specified  - private measure
improvement of social and cultural infrastructure	- refurbishment and reuse of a former school complex Schulze-Boysen-Straße 38 as neighbourhood centre - modernisation of building and schoolyard of listed Mildred-Harnack-Oberschule in Schulze-Boysen-Straße 12 according to issues of monument conservation	- 2,1 Mio. EUR  - 10,21 Mio. EUR

development of commerce and business	- reorganisation of industrial area in the east of the neighbourhood including concepts for temporary uses	- private measure
redensification potentials (in the long term)	- provision of regulatory framework for private building measures (binding land-use plans)	- not specified

### The Planned Measures Kaskelkiez

Type of Measure	Content of Measure	Costs of Measure
refurbishment of residential buildings	- continuation of refurbishment and modernisation	- not specified (see concept 1994)
refurbishment of technical infrastructure	- expansion of natural gas system is necessary - no special explanatory notes	- /
enhancement of public green and open space	- creation of a green corridor along Hauffstraße including construction of a new foot and bicycle path - redesign of green space in Türirschmidtstraße/Pfarrstraße/Kernhofer Straße - redesign of green space in Türirschmidtstraße 41/42 - continuation of tree planting in the whole area - creation of a green corridor along "Kuhgraben", leading through the blocks 52, 53 and 54, parallel to Kaskelstraße	- 715.000 EUR - 210.000 EUR - 56.250 EUR - 165.000 EUR - 28.000 EUR
renewal of road space	- adoption of a neighbourhood-wide traffic calming (30 km/h), reconstruction of crossroad Pfarrstraße/Hauffstraße aiming at traffic calming of Pfarrstraße - implementation of privileged parking for residents - reorganisation and enhancement of road space/crossroads in the entrance areas of the neighbourhood - renewal of paving/enhancement of road space in Pfarrstraße/Türirschmidtstraße/Spittastraße/Hauffstraße - enhancement of road space in Türirschmidtstraße - potentially continuation of Schreiberhauer Straße to Wiesenweg in the neighbourhood Frankfurter Allee Süd (underbridge) - enhancement of path "Schwarzer Weg" as connection between S-Bahn station Nöldnerplatz and neighbourhood Frankfurter Allee Süd - redesign of entrance area of S-Bahn station Nöldnerplatz - redesign of entrance area of S-Bahn station Rummelsburg	- 90.000 EUR - 15.000 EUR - 285.000 EUR - 135.000 EUR - 712.000 EUR - 500.000 EUR - 94.500 EUR - 1,24 Mio. EUR - 30.000 EUR

improvement of social and cultural infrastructure	<ul style="list-style-type: none"> <li>- renewal and extension of sports facility Hauffstraße for a new youth club</li> <li>- new sports field Hauffstraße</li> <li>- reconstruction and refurbishment of the "Stadthaus" to a local museum and neighbourhood meeting place</li> <li>- reconstruction of youth and community centre "Alte Schmiede"</li> <li>- refurbishment of school complex Nöldnerstraße 44 according to issues of monument conservation</li> <li>- new youth club in former railway control centre east of the area</li> </ul>	<ul style="list-style-type: none"> <li>- 838.000 EUR</li> <li>- 1,02 Mio. EUR</li> <li>- 100.000 EUR</li> <li>- 200.000 EUR</li> <li>- 5,41 Mio. EUR</li> <li>- 927.750 EUR</li> </ul>
development of commerce and business	<ul style="list-style-type: none"> <li>- concept for revitalisation of retail stores in Kaskelkiez and concept for reuse of railway property east of the neighbourhood</li> </ul>	- not specified
redensification potentials (in the long term)	<ul style="list-style-type: none"> <li>- deconstruction and enhancement of surrounding area north of "OSZ Marktstraße" in Schreiberhauer Straße (vacant shacks)</li> </ul>	- 1,19 Mio. EUR

### The Financial Concept

As stated before one aim of the analysis and concept was to "prove" that the area is eligible receiving funds from the programme "Urban Restructuring East". This federal-state programme is one of the various urban development promotion programmes and it functions like the other urban development promotion programmes, for example like the programme "Urban Redevelopment" applied in Kaskelkiez. The Federal Government guarantees the federal states financial assistance in accordance with Article 104 a Paragraph 4 of the constitution; this assistance is supplemented by federal state and local authority funds. This federal financial aid is made available to the federal states on the basis of an administrative agreement (promotion of urban development administrative agreement).

The financial concept included promotion funds of the programme Urban Restructuring East in the first place. Nevertheless it was regarded that the area was already a promotion area for various other urban development promotion programmes, like the programmes "Urban Redevelopment", "Protection of Urban Architectural Heritage" and "Urban II" in Kaskelkiez and the programme "Urban II" in Frankfurter Allee Süd.

As so a total sum of 17,4 Mio Euros was calculated in order to finance the above measures in Frankfurter Allee Süd of which 4,6 Mio Euros were allocated to the programme Urban Restructuring East. In Kaskelkiez a total sum of 17,9 Mio Euros was needed of which 6 Mio Euros were allocated to the programme Urban Restructuring East.

Parallel to the above promoting programmes which targeted mainly at public measures on public land and public infrastructure a great number of funding programmes existed and still exists in order to help financing measures on private land and private estates, especially regarding residential buildings. This is important to mention because since the year 2002 urban development promotion politics in Berlin changed course in terms of funding: After 2001 funds predominantly were not to be spent for refurbishment of private

buildings but for refurbishment of public infrastructure and public space. Practically urban development promotion of private measures was discontinued after 2001.

Especially the programmes of the KfW play a primal role regarding the funding of private measures. A large number of KfW programmes exist in order to enable and assist financing in the housing sector. These programmes are predominantly loans with low interest loans. The most important programme was the "CO<sub>2</sub> building refurbishment programme" (CO<sub>2</sub>-Gebäudesanierungsprogramm) that was started in 2001. Larger investments concerning measures towards energy savings in old buildings (Altbauten)<sup>48</sup> were funded by allowances for loans. Between 2001 and 2005 a sum of about one billion (thousand million) Euros were spent for loan allowances.<sup>49</sup>

## 6.6 IUDC Ostkreuz (Stadtteilentwicklungskonzept Ostkreuz), 2006

The IUDC Ostkreuz 2006 follows the concept from 2002. Its aim is the updating of statistical data and the review of the development strategy for each subarea. Therefore the development of inhabitants, housing stock, vacancies, social infrastructure, green spaces and open space as well as the realised investments were surveyed. A neighbourhood profile for each subarea was developed including needs for action, options for action and development aims. Finally priorities were fixed.

### Development Goals Frankfurter Allee Süd

It was stated that the neighbourhood has to be qualified as an inner city and quiet residential quarter with a high ratio of green space and good infrastructure facilities for all generations. It also has to be strengthened regarding the supply of necessary goods and services also for surrounding neighbourhoods.

### Development Goals Kaskelkiez

Basic aims regarding public infrastructure have been realised by implementation of concluded measures. The population structure is stable and the number of inhabitants is increasing. The residents' identification with their neighbourhood is rated as high which can be interpreted as a high tenant satisfaction. General development measures in the area can be seen as nearly completed.

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<sup>48</sup> later also in new buildings like prefabricated buildings and after 2003 also for refurbishments concerning heating

<sup>49</sup> Bundesfinanzministerium: Haushaltsrechnung und Vermögensrechnung des Bundes für das Haushaltsjahr 2004, page 41, [http://www.bundesfinanzministerium.de/nr\\_28274/DE/Wirtschaft\\_\\_und\\_\\_Verwaltung/Finanz\\_\\_und\\_\\_Wirtschaftspolitik/Bundeshaushalt/Jahresrechnung/Jahresrechnung\\_\\_2004,templateId=raw,property=publicationFile.pdf](http://www.bundesfinanzministerium.de/nr_28274/DE/Wirtschaft__und__Verwaltung/Finanz__und__Wirtschaftspolitik/Bundeshaushalt/Jahresrechnung/Jahresrechnung__2004,templateId=raw,property=publicationFile.pdf)

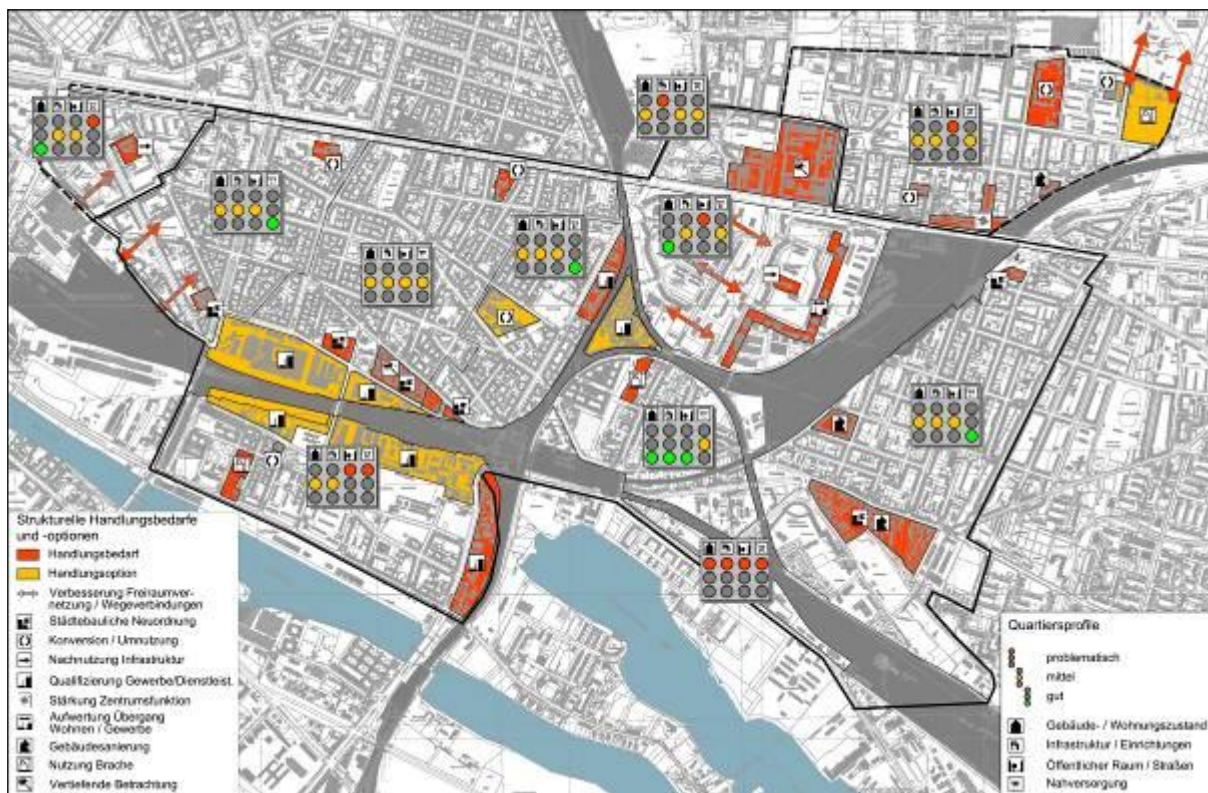


Fig. 39: Integrated Development Plan Ostkreuz 2006

### The Spatial Concept Frankfurter Allee Süd

Main focus is on the (energy-efficient) refurbishment of social infrastructure facilities, on the design and greening of road space and on the improvement of the footpath connection between residential area and shopping facilities. Substantial need for action is stated regarding the enhancement of open space and the creation of a spatial order in the eastern part of the neighbourhood. The path network in the whole neighbourhood has to be laid out more clearly. A former school complex in Harnackstraße has to be reused, to adjust spatial deficits of the neighbouring school.

### The Spatial Concept Kaskelkiez

In the concept it is stated that the path network has to be improved, including the entrances of S-Bahn stations. Roads have to be renewed according to the historical appearance. Generally green spaces have to be enhanced. Substantial need for action is stated for the wasteland Schreiberhauer Straße which is designated as residential area. Here also temporary uses can be considered.

In 2002 it was planned to refurbish and to reuse a former school complex in Schulze-Boysen-Straße 38 as neighbourhood centre "Kiezspinne". In 2003 it was proved that the complex is oversized for this certain use. So the decision was made in favour of a completely new building tailored to the particular needs of the neighbourhood centre. In 2006 the new building was nearly completed.



### The Planned Measures Frankfurter Allee Süd

Type of Measure	Content of Measure	Costs of Measure
refurbishment of residential buildings	- refurbishment and modernisation completed	- /
refurbishment of technical infrastructure	- no special explanatory notes	- /
enhancement of public green and open space	- continuation of tree planting in the whole area - greening of Schulze-Boysen-Straße	- not specified - 80.000 EUR
renewal of road space	- improvement of path connection between residential area and commercial/industrial area in the east of the neighbourhood	- 200.000 EUR
improvement of social and cultural infrastructure	- refurbishment of Hermann-Gmeiner elementary school Harnackstraße 17 - refurbishment of Mildred-Harnack school Schulze-Boysen-Straße (historical building) - refurbishment and reuse of a former school complex Harnackstraße 25 - refurbishment of kindergarten Harnackstraße 7-9 - refurbishment of youth club "Steinhaus" Schulze-Boysen-Straße 10	- 1,206 Mio. EUR - 2,05 Mio. EUR - 1,35 Mio. EUR - 1,5 Mio. EUR - 155.000 EUR
development of commerce and business	- construction of neighbourhood workshops near Kiezspinne, implementation of qualification scheme for improvement of manual and technical skills for unemployed adolescents	- 100.000 EUR
redensification potentials (in the long term)	- no special explanatory notes	- /

### The Planned Measures Kaskelkiez

Type of Measure	Content of Measure	Costs of Measure
refurbishment of residential buildings	- continuation of refurbishment and modernisation	- not specified
refurbishment of technical infrastructure	- no special explanatory notes	- /
enhancement of public green and open space	- no special explanatory notes	- /

renewal of road space	<ul style="list-style-type: none"> <li>- renewal of paving in Spittastraße (last remaining non-renewed road space in the whole neighbourhood)</li> <li>- restoration of front gardens in Spittastraße</li> <li>- enhancement of path "Schwarzer Weg" as connection between S-Bahn station Nöldnerplatz and neighbourhood Frankfurter Allee Süd</li> <li>- redesign of entrance area of S-Bahn station Nöldnerplatz</li> </ul>	<ul style="list-style-type: none"> <li>- 250.000 EUR</li> <li>- not specified (see 1994)</li> <li>- 150.000 EUR</li> <li>- 86.000 EUR</li> </ul>
improvement of social and cultural infrastructure	- no special explanatory notes	- /
development of commerce and business	- no special explanatory notes	- /
redensification potentials (in the long term)	- concept for temporary use for the wasteland along Schreiberhauer Straße	- 86.000 EUR

### The Financial Concept

As one can see in the measurement table most of the costs accumulate in the area Frankfurter Allee Süd, thereby for the refurbishment of social and cultural infrastructure. In 2006 again promotion programmes were combined in order to finance the public costs. Like 2002, the same funding procedures apply in 2006. Since the year 2007 the urban development promotion programmes are co-financed by the EU (ERDF) in Berlin.<sup>50</sup>

Regarding the funding of private measures even more KfW-programmes for financing energy efficiency and renewable energy exist in 2006.

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<sup>50</sup> See operational programme of Land Berlin for the ERDF in the period 2007-2013 ( Operationelles Programm des Landes Berlin für den Europäischen Fonds für regionale Entwicklung in der Förderperiode 2007-2013)

Part 4

## 7 Documentation of Realised Measures

### 7.1 Status of Implementation of Planned Measures in Frankfurter Allee Süd Since the Past 20 Years

Planned Measures	Year of Planning <sup>51</sup>	Status of Realisation in 2010
<b>refurbishment of residential buildings</b>		
"constructional measures"	1993	realised
renovation and design of façades including thermal insulation	1993	realised
renovation of windows	1993	realised
reconstruction of heating system: one-pipe to double-pipe heating system (if necessary) and renovation of heating feed points	1993	realised
refurbishment and renewal of roofs	1993	realised
roof greening	1993	measure was given up
passage ways, entrances, foyers, accesses to tenant's gardens	1993	realised
breakthrough of an additional passage way in the elongated 11-storey building in Schulze-Boysen-Straße including the preparation of a commercial use along the passage way	1993	realised
<b>refurbishment of technical infrastructure</b>		
modernisation of municipal heat system	1993	realised
<b>enhancement of private residential surrounding (open space)</b>		
greenery, playgrounds, tenant's gardens, paths, parking lots, new waste separation system	1993	realised
<b>enhancement of public green and open space</b>		
neighbourhood-wide model of "urban forest" (grove) for the creation of structured spatial	1993	partly realised, in the meanwhile change of design approach
planting of different avenue trees for accentuation of road spaces	1993	partly realised
creation of squares as meeting places and calmed zones	1993	partly realised
creation of a green corridor ("Grünzug Frankfurter Allee Süd") from Frankfurter Allee/Buchberger Straße (1) leading to Schulze-Boysen-Straße/Tasdorfer	2002	(1) realised (support of EU initiative Urban II)

<sup>51</sup> Year of planning in the IUDCs, when measure was documented for the first time

Straße along the rail track and (2) as spacious cross-linking of the eastern part of the neighbourhood with Frankfurter Allee and the zoo "Tierpark Friedrichsfelde"		(2) not realised yet
greening of Schulze-Boysen-Straße	2006	realised (support of EU initiative Urban II)
<b>renewal of road space</b>		
implementation of a neighbourhood-wide foot path network	1993	partly realised
reduced speed zones	1993	partly realised (Schulze-Boysen-Straße)
extension of number of parking lots through reasonable structuring of bigger parking places, through exhausting the potential of cross parking along the streets, building of 90 additional garages and one multi-storey car park	1993	reorganisation realised, building of additional garages was given up
reconstruction of Schulze-Boysen-Straße as residential street (less attractive as through road) through extension of pavements	2001	realised (support of EU initiative Urban II)
redesign of bottleneck passage at the railway underpass to Kaskelkiez (Schulze-Boysen-Straße - Schreiberhauer Straße/Pfarrstraße)	2002	partly realised (illumination project underneath the railway bridge, pedestrian island on the street, support of EU initiative Urban II)
rearrangement of parking lots	2002	realised
<b>improvement of social and cultural infrastructure</b>		
refurbishment of buildings, energy-efficient refurbishment	1993	partly realised, energy-efficiency measures mostly as result of funding programme
adaptation of buildings to new educational system	1993	partly realised
designing of the outdoor areas of schools and kindergartens	1993	partly realised
extension of outdoor area of elementary school Schulze-Boysen-Straße 38 due to intended increase of number of pupils	1993	measure was given up (construction of new neighbourhood centre)
refurbishment and reuse of a former school complex Schulze-Boysen-Straße 38 as neighbourhood centre	2002	measure was given up (demolishing of old school building and construction of new

		neighbourhood centre)
modernisation of building and schoolyard of listed Mildred-Harnack-Oberschule in Schulze-Boysen-Straße 12 according to issues of monument conservation	2002	modernisation of building partly realised, renewal of schoolyard realised
construction of a new neighbourhood centre in Schulze-Boysen-Straße 38 ("Kiezspinne")	2003	realised (support of EU initiative Urban II)
refurbishment of Hermann-Gmeiner elementary school Harnackstraße 17	2006	refurbishment of school building not realised yet, refurbishment of sports hall and renewal of sports field realised
refurbishment and reuse of a former school complex Harnackstraße 25	2006	refurbishment not realised yet, building used in parts as school building and in parts for social activities
refurbishment of kindergarten Harnackstraße 7-9	2006	not realised
refurbishment of youth club "Steinhaus" Schulze-Boysen-Straße 10	2006	not realised
refurbishment of sports hall (façade) Tasdorfer Straße located at demolished former school complex Schulze-Boysen-Straße 38 (now "Kiezspinne") to be used for Mildred-Harnack school	2006	realised in connection with project "Architecture and School" (support of EU initiative Urban II)
<b>development of commerce and business</b>		
development of commerce and business generally mentioned, no measures specified	1993	/
reorganisation of industrial area in the east of the neighbourhood including concepts for temporary uses	2002	partly realised (substation Wiesenweg: reused as theatre "canteatro", space for art studios, band rooms and other cultural businesses)
construction of neighbourhood workshops near Kiezspinne, implementation of qualification scheme for improvement of manual and technical skills for unemployed adolescents	2006	realised (support of EU initiative Urban II)
<b>redensification</b>		
construction of small shopping centre "Mauritiuskirch-Center" northeast of the area	1991	realised

construction of additional commercial buildings as noise protection directly in front of the residential buildings along Frankfurter Allee	1993	measure was given up
closure of several block edges to create clearly defined yards	1993	measure was given up
construction of new residential buildings (townhouses) along Albert-Höbller Straße in the eastern part of the neighbourhood	1993	measure was given up
<b>social and educational measures, involvement</b>		
Establishment of a "German-Russian School Radio" at bilingual elementary school Mildred-Harnack-School	2003	realised (support of EU initiative Urban II)
project "Architecture and School" at several schools also in Frankfurter Allee Süd, improvement of awareness of pupils for their built environment	2004	realised (support of EU initiative Urban II)
"Der Kleine Urbanfonds": 240.000 EUR for citizens' projects, unbureaucratic and fast granting of funds	2003	realised (support of EU initiative Urban II)

## 7.2 Status of Implementation of Planned Measures in Kaskelkiez Since the Past 20 Years

Planned measures	Year of planning <sup>52</sup>	Status of realisation
<b>refurbishment of residential buildings</b> blocks are categorised according to the priority of refurbishment and renewal need (highest priority: blocks 45, 46 and 57)		
new heating installation, change from coal to gas heating system	1993	partly realised
amalgamation of flats	1993	realised
installation of new windows with noise and heat insulation	1993	partly realised
thermal insulation of façades, roofs, gables and cellars	1993	partly realised
renewal stucco façades and balconies	1993	partly realised
creation of indoor bathrooms	1993	partly realised
renewal of stairs	1993	partly realised
<b>refurbishment of technical infrastructure</b>		

<sup>52</sup> Year of planning in the IUDCs, when measure was documented for the first time

connection to the district heating network, construction of a central heating pipe from Nöldnerplatz through Kaskelstraße to the planned service centre (office buildings) west of the neighbourhood	1993	measure was definitely given up in 2006
renewal of several pipes and cables in the whole neighbourhood	1993	realised
<b>enhancement of private residential surrounding (open space)</b>		
new front gardens	1993	partly realised
enhancement of existing front gardens	1993	partly realised
green space concept for semi-public areas inside the blocks 49, 54 and 55	1993	measure was given up
deconstruction of vacant shacks and enhancement of surrounding area north of "OSZ Marktstraße" in Schreiberhauer Straße	2002	realised, construction of a new sports field for adjacent vocational school
concept for temporary use for the wasteland along Schreiberhauer Straße	2006	not realised yet
<b>enhancement of public green and open space</b>		
new green space	1993	partly realised
enhancement of existing green space	1993	realised
new playgrounds	1993	realised
enhancement of existing playgrounds	1993	realised
new design for public square Tuchollaplatz	1993	realised
creation of a green corridor along Hauffstraße including construction of a new foot and bicycle path	1993	realised (support of EU initiative Urban II and EFRE)
planting of new trees	1993	realised
redesign of Nöldnerplatz	1993	realised, including new playground (support of EU initiative Urban II and EFRE)
construction of a new path along "Kuhgraben", leading through the blocks 52, 53 and 54, parallel to Kaskelstraße	1993	not realised yet
redesign of green space in Türschmidtstraße/Pfarrstraße/Kernhofer Straße	2002	realised
redesign of green space in Türschmidtstraße 41/42	2002	realised
"¼ auf 5 Wegen": artistic illuminating installation at	2002	realised



five rail track passageways as better connection to the surrounding areas of Kaskelkiez		(support of EU initiative Urban II)
<b>renewal of road space</b>		
neighbourhood-wide reduction of speed (30 km/h) and two play streets in Kernhofer Straße and Geusenstraße	1993	reduction of speed realised and enforced with built measures; measure "play streets" partly realised
reduction of the width of streets in favour of new parking lots for cross parking	1993	partly realised
construction of a new street "Schreiberhauer Straße" as north-south connection along the planned service centre (office buildings) west of Kaskelkiez	1993	realised
construction of a new pedestrians' tunnel from Kaskelstraße to Lückstraße	1993	not realised
redesign of entrance area S-Bahn station Nöldnerplatz (including an additional entrance)	1993	realised (support of EU initiative Urban II), but no additional entrance
redesign of entrance area S-Bahn station Rummelsburg (including an additional entrance)	1993	realised, but no additional entrance
reconstruction of crossroad Pfarrstraße/Hauffstraße aiming at traffic calming of Pfarrstraße	2002	realised
implementation of privileged parking for residents	2002	not realised
reorganisation and enhancement of road space/crossroads in the entrance areas of the neighbourhood	2002	realised
renewal of paving/enhancement of road space in Pfarrstraße/Türschmidtstraße/Spittastraße/Hauffstraße	2002	realised
enhancement of road space in Türschmidtstraße	2002	realised
potentially continuation of Schreiberhauer Straße to Wiesenweg in the neighbourhood Frankfurter Allee Süd (underbridge)	2002	not realised
enhancement of path "Schwarzer Weg" as connection between S-Bahn station Nöldnerplatz and neighbourhood Frankfurter Allee Süd	2002	realised
renewal of paving in Spittastraße (last remaining non-renewed road space in the whole neighbourhood)	2006	realised
restoration of front gardens in Spittastraße	2006	realised
<b>improvement of social and cultural infrastructure</b>		
new construction of an elementary school in	1993	measure was given up

Hauffstraße		in favour of potential construction of kindergarten
new construction of two kindergartens in Hauffstraße and in Spittastraße 36/38	1993	planned location for kindergarten in Hauffstraße 21 redesigned as playground (support of EU initiative Urban II and EFRE)
relocation of a meeting point for elderly people in Spittastraße 12	1993	measure was given up
new construction/establishment of youth/recreation facilities in Nöldnerstraße 6/7 and in Kaskelstraße/Spittastraße	1993	realised
new construction of a small medical centre in Türschmidtstraße 7/8 and a pharmacy in Kaskelstraße 32, maintenance of two supervised residential groups of disabled adults in Kaskelstraße 50 and Pfarrstraße 140	1993	partly realised
provision of rooms for art studios in vacant commercial premises, such as in Nöldnerstraße 15/16 or Kaskelstraße 25	1993	measure was given up
renewal and extension of sports facility Hauffstraße for a new youth club	2002	realised
new sports field Hauffstraße	2002	realised
reconstruction and refurbishment of the "Stadthaus" to a local museum and neighbourhood meeting place	2002	realised
reconstruction of youth and community centre "Alte Schmiede"	2002	realised (support of EU initiative Urban II)
refurbishment of school complex Nöldnerstraße 44 according to issues of monument conservation	2002	realised
new youth club in former railway control centre east of the area	2002	realised as space for art studios and other cultural businesses (BLO Ateliers, support of EU initiative Urban II)
<b>development of commerce and business</b>		
modernisation and renovation of commercial units: same measures as in residential units	1993	mostly realised
relocation of four companies, one supermarket - construction firm Hauffstraße 10/11	1993	- realised

- truckage company Hauffstraße 21 - garage Pfarrstraße 128/130 - carpenter's workshop Nöldnerstraße 30 - supermarket Türschmidtstraße 42-44		- realised - realised - measure was given up - measure was given up
"Ladenleben": strategy against vacancy of commercial premises in Kaskelkiez and Weitlingstraße	2002	realised (support of EU initiative Urban II)
"BLO-Ateliers": reuse of railway property (engine sheds) east of the neighbourhood as space for art studios and other cultural businesses	2002	realised (support of EU initiative Urban II)
<b>redensification</b>		
construction of new service centre (Dienstleistungszentrum Ostkreuz Nord) and additional office building for the German statutory pension insurance scheme (reuse of former Knorr-Bremse-buildings) west of the area	1992	realised
38 locations for new buildings, mainly gaps between existing buildings (which are often used as parking lots) (332 new residential units planned (in parts commercial units in ground floors)	1993	partly realised
construction of small shopping centre "Victoria-Center" in Marktstraße, west of the area	1999	realised
<b>social and educational measures, involvement</b>		
redevelopment agent (§ 157 BauGB), tenants' consultation/social plan	1993	realised
"Der Kleine Urbanfonds": 240.000 EUR for citizens' projects, unbureaucratic and fast granting of funds	2003	realised (support of EU initiative Urban II)
project "Architecture and School" at several schools also in Frankfurter Allee Süd, improvement of awareness of pupils for their built environment	2004	realised (support of EU initiative Urban II)

Fig. 40 (p. 109): Realised measures in Case Study Area Berlin since the past 20 years

# Realised measures in Case Study Area Berlin since the past 20 years

Refurbishment of residential buildings  
 ratio of refurbishment of residential housing stock Frankfurter Allee Süd: 100%, Kaskelkiez: 66%

- Comprehensive energy-efficient refurbishment  
Reduction  $Q_H$ :  $\geq 25\%$ ,  $Q_{End}$ :  $\geq 33\%$
- Energy-efficient refurbishment  
Reduction  $Q_H$ :  $8 - < 25\%$ ,  $Q_{End}$ :  $12 - < 33\%$
- Partly energy-efficient refurbishment  
Reduction  $Q_H$ :  $0 - < 8\%$ ,  $Q_{End}$ :  $0 - < 12\%$
- Use of renewable energy  
Solar heat, photovoltaics, biomass, cogeneration unit

## Redensification

- Construction of new building
- Enhancement of private residential surrounding (open space)
- Enhancement of private greenery
- Construction of new front garden

## Enhancement of public green and open space

- Enhancement / construction of public greenery and public square
- Planting of trees
- Enhancement / construction of playground
- Construction of kickabout area
- Art project on public open space

## Renewal of road space

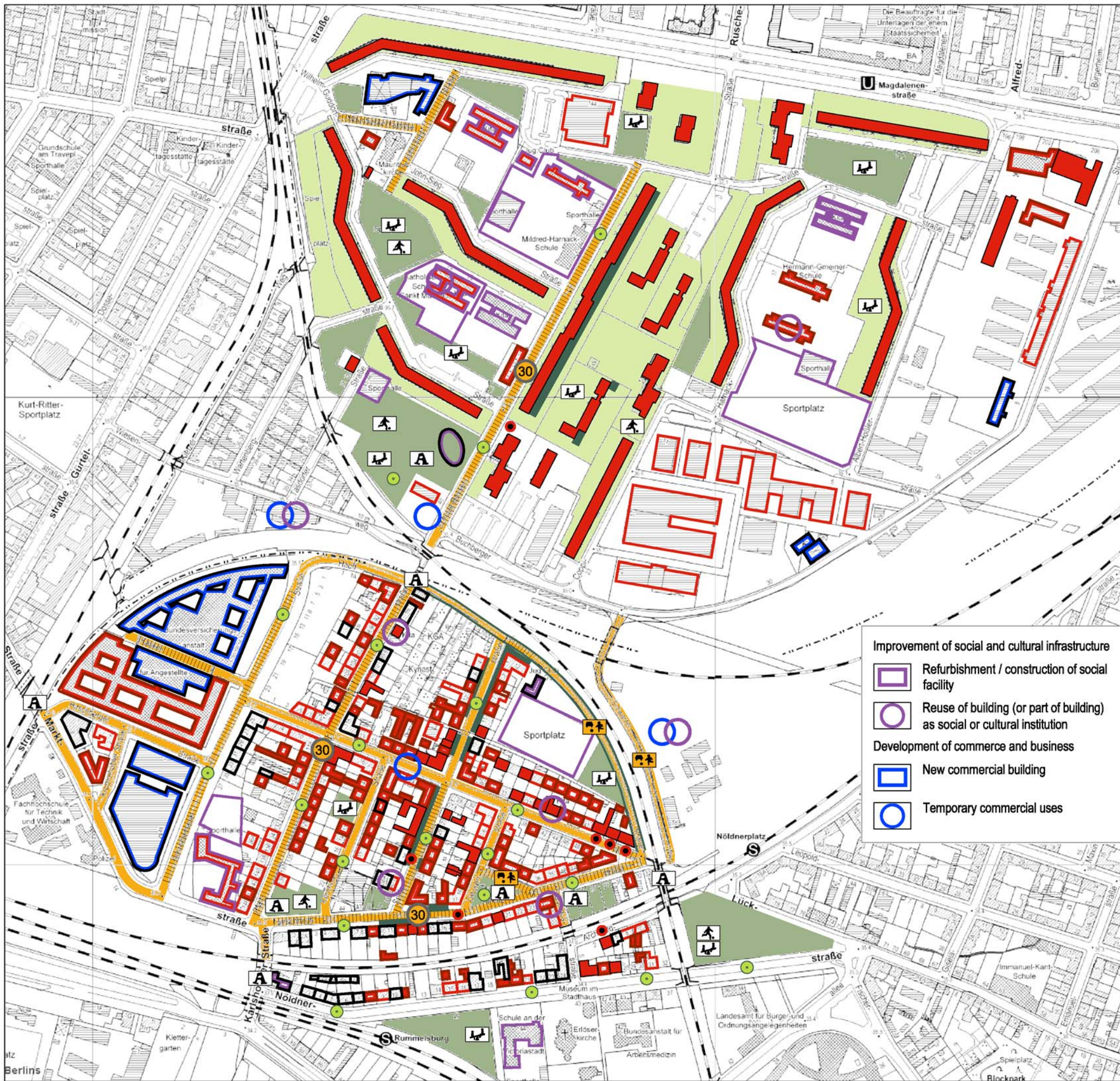
- Renewal of road / construction of new road
- Dedication of play street / pedestrians and bicycles only
- Reduction of speed (30 km/h) enforced with built measure
- Reorganisation of parking lots

## Improvement of social and cultural infrastructure

- Refurbishment / construction of social facility
- Reuse of building (or part of building) as social or cultural institution
- New commercial building
- Temporary commercial uses

## Development of commerce and business

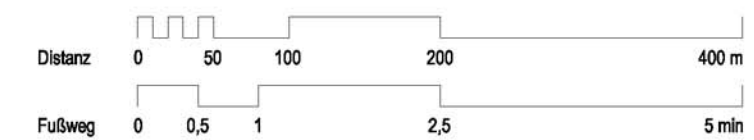
- New commercial building
- Temporary commercial uses



## Urb.Energy, Case Study Berlin

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## 8 Evaluation of the Integrated Planning Process

### 8.1 Situation of the Area Today - Measuring the Success of 20 Years of Integrated Urban Development Planning

Looking back on 20 years of integrated urban development planning in the case study area its success or failure needs to be compared to the result of the development: How is the situation of the neighbourhoods Frankfurter Allee Süd and Kaskelkiez today?

#### Frankfurter Allee Süd

Frankfurter Allee Süd is a quiet residential neighbourhood. The unemployment rate of the area is average and the concentration of people receiving social benefits is below average. The housing stock is completely refurbished and characterised by a low vacancy rate. Partly the standard of energy-efficient refurbishment is very high<sup>53</sup>, as so with the twin tower Schulze-Boysen-Straße 38, which is Europe's highest low energy residential building.

The supply of social infrastructure facilities is very good but still not all of them are refurbished. Presently several buildings are in progress of refurbishment, including energy efficiency measures. There are still a few social and cultural facilities that are not refurbished or not completely refurbished yet. A new facility was constructed for a neighbourhood centre that became an important social point in the neighbourhood.

In the whole area public and private green have been enhanced or was created completely new. Solely the continuation of the green corridor at the rail tracks towards east, in direction of Buchberger Straße, has not been realised yet due to its planned implementation in connection with the general new development of the adjacent industrial area in the long term. Precondition for enhancing private and public greenery was the allocation of public and private land in the years 1993 and 1994.

A new network of foot paths was introduced, so today residents can reach schools, kindergartens, cultural facilities and shopping facilities conveniently. Most of the streets were enhanced with new pavements, the main street Schulze-Boysen-Straße was traffic-calmed. The parking situation was restructured completely, most of the residents are satisfied with the existing number of parking lots.

The development of commercial uses inside the area stagnates. Still there is a lack of vitality in the sub centres of the neighbourhood of Frankfurter Allee Süd. This is also due to the large shopping development "Ring-Arkaden" that is located north-west of the neighbourhood.

Forms of stakeholder cooperation are established and work well, especially between the housing companies, the residents and the planning authorities senate and district.

#### Kaskelkiez

Kaskelkiez also is a quiet neighbourhood which in the last years has become very attractive particularly among young families who prefer living in a lively traditional urban

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<sup>53</sup> Compare deepening study by BBP, WP 4: Henryk Hoenow, Matthias Gaudig (2011)

surrounding. Approximately 60 % of the historical buildings have been refurbished, some of them equipped with a high energy efficiency standard. More than 300 new flats were constructed.

Public open space is well-designed as there now are traffic-calmed residential streets, the restored square Tuchollaplatz, and new and attractive green spaces. New playgrounds were built and designed on vacant lots or on smaller wastelands. However half of the streets need to be refurbished and traffic calmed still and residents are not satisfied with the parking situation.

The supply of cultural infrastructure and gastronomy is slowly but steadily increasing. A new neighbourhood centre and cultural centre were established. Infrastructure buildings are energy-efficient refurbished to a high extent. The number of kindergarten space demand was satisfied in 2009, today in 2010 some spaces are lacking due to the popularity of the area by young families.

In the western part there is still a larger wasteland area waiting for development. Here the owner of the plot intends to develop another complex of office buildings, whereas the district authority intends housing construction. The small commercial uses in the ground floors of buildings have been developing slowly but well since the past five years. An increasing number of shops, cafés, arts and crafts enterprises can be counted.

Stakeholder cooperation works very well in Kaskelkiez. The intensive communication process and the committees (which were established during the formal designation of the area as redevelopment area) are continued.

#### Balance of Realised Measures - Contrasted with Planned Measures

In chapter 7 one can see that most of the planned measures were realised. Quite a great number of the today realised measures had already been planned in the early 1990ies. Taking a closer look at the measure tables of all relevant planning documents in the area (documented in chapters 6.2-6.6) one can see that planned measures, which had not been realised since the last planning documentation, again are listed. In a number of cases planned measures are being carried forward several times to the following planning process, until they are realised. This "postponing" of measures can be explained mainly with financial deficits.

Precisely because of missing financial resources it is important to have a strong frame of objectives for the development of an area. All actors should agree with the frame of objectives for an area. The case study shows that the IUDCs had the function to back this frame of objectives. They were the reliable base of action for all actors, both public and private. They were fundamental for public steering of development processes, at the same time they offered security for (energy-efficient) investment decisions of the housing owners.

Whereas most of the planned measures were realised, some were given up or revised. Planned measures which were given up are

- early plans concerning car parking organisation,
- early plans for redensification of the large housing estate,

- certain design approaches for the development of public green,
- a green space concept for semi-public areas inside some blocks of Kaskelkiez
- the closure of a school.

The plans concerning car parking organisation turned out to be either too expensive or in some cases not to be necessary. The plans for redensification in Frankfurter Allee Süd were given up not only because there was little demand in the housing market, but also because of reasons to save the characteristic design of large housing areas. Although all actors had agreed upon the design "urban forest" for Frankfurter Allee Süd in 1993 this approach was given up. The reasons for this cannot be retraced, but probably the implementation was not feasible due to the ownership structure.

The planned measure of creating a common space for neighbours in a courtyard area of several blocks in Kaskelkiez was given up because of the split ownership structure. Not all owners could be convinced that the common use of backyards might be reasonable.

Another planned measure, which was given up was the closure of a school in Frankfurter Allee Süd. Analysing population data one had thought that the school building would not be necessary for school use in the future. For this reason one had planned to reuse the school building as a neighbourhood centre. Today the number of children has increased in the area, especially in the neighbouring areas, and the demand of school places is higher than the supply. In the meantime one decided to build a new neighbourhood centre: the Kiezspinne, a successful investment into community activities that take place in this newly built facility.

The fact that planned measures were given up did not lead to irritations in the area. Neither tenants nor housing owners changed their cooperation or investment engagements in the area. Again, the IUDCs played a strong role in the actor's cohesion.

## 8.2 Evaluation of the Operational Process of Integrated Urban Development in Case Study Area Berlin

The key instrument of energy-related urban regeneration in Berlin is the IUDC. In order to elaborate IUDCs an intense process of planning steps and participation has been and is being organised in Berlin. The following reflection on integrated development planning is based on the Case Study Berlin - a retrospective evaluation of the integrated development planning process of the past 20 years. The reflection includes reporting about good practice and about critical elements of the planning process in Berlin.



## 8.2.1 Preliminary Phase and Preparation of the Planning

The numerous IUDCs, which were elaborated during 20 years for the case study area, were initiated because "urban deficits" (a term of the Federal Building Code of Germany) were assumed in the two neighbourhoods. What is to be defined as "urban deficit" clarifies German law - but only in the case of "redevelopment areas" (Federal Building Code § 136 et seqq.). There is no definition for urban deficits for other areas. Thus, this needs to be explored and discussed prior to the planning processes. This discussion usually takes place within the administrative and political realm, as so in the case of the planning processes in the case study area. There were no specific objectives regarding energy efficiency, which led to the decision of starting an integrated development planning process up to the year 2006 in the case study area in Berlin. Only after this, energy efficiency became an aspect to be considered.

Prior to the start of an IUD planning process it was decided, whether the elaboration of the IUDC and the organisation of the planning process should be conducted by the administration itself (urban planning department) or whether a private planning office should be contracted to do so. In Berlin usually private planning offices elaborate IUDCs and organise the planning process. It is important to mention that the administrative and political body is the responsible actor in order to conduct a balanced planning process. The private planning office's role is to provide advice and to assist the administrative and political body.

Not a reason but an incentive of initiating an IUD planning process was the fact, that promotion programmes and public financial funds existed in order to support the urban development of the neighbourhoods.

## 8.2.2 Inventory and Evaluation of the Situation

In a first step of an integrated planning process, an in-depth study of the situation was and is elaborated in Berlin. Sustainable integrated urban development requires the integrative consideration of preferably all-embracing elements which shape the spatial, social, economic, and ecological environment. The ambition to include "preferably all-embracing" elements is a major challenge. During the past decades a set of elements were developed for integrated urban development planning in order to put a practical structure to planning processes.

Since the 1980ies a recurring set of elements is being used in order to structure integrated planning processes in Berlin. The main features of this structure were consistent during the past decades, but at the same time taking into account that modifications and emphases were set according to the specific planning situation. The set of elements reflects strongly the miscellaneous duties of the different municipal planning authorities in Germany, which are organised in sectors - as described in chapter 1.3. Thus, one challenge of integrated urban development planning is the requirement of also including the integration and harmonisation of issues within the different authorities.

The following chart shows the elements that were the base set of elements of integrated urban development during the past 20 years in the case study area. This set of elements was used by all authors of the planning documents during the past 20 years in the case study area. The set of different elements comprises a good and practical foundation for embracing the dimensions of spatial, social, economic and ecological urban development.

While exploring the various elements, the first IUDCs for the case study area did not focus on the objective of energy efficiency. Only after 2006, when energy efficiency action was publicly funded by a larger number of programmes (see chapter 1.4), energy efficiency was considered explicitly.

After having taken of an inventory, these elements were evaluated. In Berlin one did not use the entire method of SWOT-analysis that includes a cross-aspect consideration according to a theoretical approach. Instead, one had used several elements of the SWOT-analysis and thus conducted a simple and coherent evaluation of the area's situation by this means: Qualities and potentials of the area on one hand, and deficits and constraints on the other hand were identified.

This first planning step was mainly conducted by the administration or the private planning office in the case study's IUD planning processes. In most of the planning processes - but not all - the public (public agencies, residents, housing owners, private providers of social and cultural infrastructures, local business people) was included carefully during these first planning steps (usually through public meetings and opinion surveys).

In most of the public hearings or workshops district politicians participated, which underlined the importance and seriousness of the planning process.

In the case study area it happened that the energy provider (as one important public agency) was not included carefully enough. If they had been included, the today's balance of primary energy demand and CO<sub>2</sub> emission would be much better in Kaskelkiez (to be to blame for is the missed opportunity to connect Kaskelkiez to the district heating service.).

In terms of including residents in the planning process it was helpful that organised groups of residents or tenants lived and engaged themselves in the neighbourhood. In later IUD planning processes (after 2006) they were important carriers and multipliers in order to promote consciousness raising towards energy efficiency.

### 8.2.3 Formulation of Needs for Action, Agreeing on Development Goals

The inventory and evaluation of the area resulted in the formulation of needs for action. These consequentially resulted from the evaluation: Qualities and potentials were to be promoted. Deficits and constraints were to be reduced and abolished. Together with the steps of reaching to an agreement on development goals this was a crucial moment of integrating the different sectors and interests of different actors in the planning cases of the study area in Berlin. Usually so called "coordination meetings" were set up by the planning authority. Invitations for participation were usually addressed to the different responsible district departments and to the senate department. In later planning processes these coordination meetings (which decided about important directions of the planning!) were in some cases more open and included private providers of social and cultural

infrastructure or housing companies and cooperatives. In case of the latter actor it was more common to coordinate action and objectives in separate meetings (only planning authority/private planning office and housing owners).

The politicians in charge of the planning and its passing were regularly informed about the results of the meetings.

#### 8.2.4 Elaborating Alternative Integrated Concepts, Setting Priorities, Elaborating an Integrated Concept Plan

With the results of a set of needs for action and the development goals agreed upon, alternative integrated concepts were elaborated (usually by the private planning office under supervision of the planning authority). These alternatives, mostly rough plans of the area, again were and are crucial moments to organise actors' involvement in Berlin. Citizen participation and coordination between the other actors were organised again. The citizens' opinions and the other actors' positions were (or tried to be) considered while setting priorities. Towards the background of sustainable development these priorities needed to be balanced carefully. In the planning processes of the past five year, when energy efficiency was determined as a strong development goal, the chance was taken to set priorities of action in favour of energy efficiency. However, one needs to take into account that this also happened, because a large range of public funding possibilities existed. This process resulted in elaborating an integrated concept plan.

#### 8.2.5 Elaborating a Measure and Financing Plan

In order to prepare concrete action, so called "measure and financing plans" were and are prepared in Berlin. They consist of a detailed table with all planned measures and specific information on each of them.

Looking back at the various planning processes in the case study area Berlin, the following facts were of vital importance, if a measure had been realised: First, measures were appointed to responsible bodies (e.g. owners, specific department of the district, specific carrier of an infrastructure facility). Second, a possibility was determined or proposed, in order to finance the measure (private funds, municipal household, specific promotion programme, sometimes combination of programmes, sometimes a public-private combination of funding). Third, priority measures were set, meaning, which measure ought to be realised first, in a medium term or in a long term. The prioritisation of measures was necessary also due to the fact that (private and public) financial funds were not available for all measures considered as necessary. The prioritisation of measures is another process, which needed to be discussed among actors involved. The positions of the residents, the owners and all other actors involved in the process so far should be included into this last important decision of the process.

In terms of financial funding, the various promotion programmes (European, federal, state, municipal) for energy efficiency helped to accelerate the improvement of the case study neighbourhoods in Berlin during the past five years.

## 8.2.6 Passing the IUDC

The various IUDCs, which were elaborated for the case study area, were passed through a political decision of the district. The passing of an IUDC was fundamental for the security of both, public and private. A passed IUDC is necessary for good public steering of development processes and it offers security for (energy-efficient) investment decisions of owners.

## 8.2.7 Realising the IUDC and its Planned Measures

In Berlin the realisation of the various IUDCs was clearly appointed to the district, resp. to the planning department of the district. As the staff of the planning department was in charge of further important duties and responsibilities, the planning department received assistance by a coordination agency for the respective neighbourhoods.

The coordination agencies supported the district applying for promotion funds for the single measures to be realised. This was especially important in the case of energy efficiency measures, because the agencies had quite a good overview of the available promotion programmes and funds and knew about the special characteristics of successful application. The main task of the agencies was to organise and to coordinate the various measures. They also initiated and organised participation processes about detailing a measure (for example a design of a park or a concept for reconstruction of a kindergarten).

The agencies, while being located with their offices in the neighbourhood, became an important local contact and actor of the neighbourhood. They were aware and sensitive of all the developments in the area, including critical ones. They took a role as intermediary, for example between conflicts of owners and tenants. Especially in terms of energy efficiency measures this was a crucial intermediating function.

The following scheme points out which kinds of energy-efficient aspects at which steps of the planning process need to be considered.

## Energy-Efficient Aspects to be Considered

steps	energy-efficient focus
1 preliminary enquiry and selection of IUDC-area	← criteria of selection: balance between economic, social and ecological aspects → EE to be included
2 inventory and evaluation	← all-embracing set of integrated elements: EE concerns buildings, energy infrastructure, transportation, green space and demography and social conditions
3 needs for action development goals	← formulation of integrated needs for action and integrated development goals: explicitly elaborate EE for all sectors and name EE as a development goal
4 alternative concepts weighing of priorities IUDC-plan	← present alternative concepts with different approaches to EE or with differently strong EE measures, conduct a social, economic and ecologically balanced weighing, draw an IUDC-plan with graphic focus on EE
5 measure and financing plan	← appoint EE projects to responsible carriers of measure, compile possibilities of financing and funding for EE projects, set priorities of action taking EE into account
6 political passing of IUDC	← prepare IUDC for political passing, point out EE balance that might be reached through realising the IUDC

### 8.3 Cooperation

In chapter 5 the cooperation concepts for the respective case study neighbourhoods are introduced. The actors' models differ in the actors involved. In the large housing area the owners are differently represented than in the historic area of Kaskelkiez due to the different owner structure. The owners of the communal or cooperative housing stock in Frankfurter Allee are a small but powerful actor group, whereas the many owners of the historic building stock are a heterogeneous number of single actors that oftentimes follow manifold and not common interests.

The two actors' models differ also because of the institutional frame that was set due to the urban development funding conditions according to the German Federal Building Code. The German law connects urban development funding to a special organisational framework of participation.

In chapter 4 the various discussions among actors about elements of the different integrated concepts are described. It becomes obvious that the elaboration of IUDCs initiates cooperation. All elements of development first need to be discussed and then need to be harmonised in a common concept. This process requires sensitivity for other actor's views and interests. It also requires willingness to come to a mutual agreement even if one's own interest cannot be fulfilled.

It is especially important that objectives and interests of the public sector (political representatives and administration), of the owners and of the local actors are harmonised in integrated urban development planning processes. In this connection all actors should understand and accept that energy efficiency measures have a strong economic impact. Owners calculate their investments and their benefits. At the same time the financial capacity of tenants needs to be considered. Not in all cases, especially when energy efficiency measures are combined with a complex refurbishment and modernisation, costs of energy efficiency measures are refinanced by savings at the running costs.

In order to realise energy-efficient action first public funding is essential and secondly information and awareness raising activities help to accept energy efficiency measures which affect the costs of rent. In chapter 5.1 some educational measures by a communal housing company are described. They show good practice regarding information and awareness raising action in the field of energy efficiency.

The following chart shows what kind of participation and cooperation are required at the various steps of the planning process.

## Participation and Cooperation in IUDC Planning Process

steps	participation and cooperation
1 preliminary enquiry and selection of IUDC-area	← make enquiry and selection transparent to the public (especially to residents and owners)
2 inventory and evaluation	← make public that IUD planning process is starting (public meeting, newspaper, poster, letters, etc.), include local actors in inventory and evaluation (opinion survey, etc.), explicitly participate public agencies, especially provider of energy
3 needs for action development goals	← integrate different sectors and interests of actors, set up coordination meetings (for different responsible administrative departments), include owners' and residents' opinion, keep political actors informed about process (this applies to all steps)
4 alternative concepts weighing of priorities IUDC-plan	← present alternatives to the public (e.g. public meeting, workshop) and discuss it with the public, make weighting of priorities transparent to the public, present IUDC-plan to the public (e.g. newspaper, poster)
5 measure and financing plan	← talk to potential carriers of measures and get them to be responsible for projects, determine all possibilities of financing and funding for planned measures, include the public in prioritisation of measures
6 political passing of IUDC	← present IUDC in front of deciding politicians (at best most of them had followed the IUD planning process), prepare a wording of the enactment, make the enactment public

## 8.4 Energy Efficiency Measures

The realisation of redevelopment in both areas led to an immense improvement of the energy efficiency and to a minimisation of CO<sub>2</sub> emission. The results differ considerably according to the conditions of the houses and the question of ownership.

### 8.4.1 Energy Efficiency Measures Frankfurter Allee Süd

In Frankfurter Allee Süd almost all buildings have been reconstructed over the last 20 years:

- residential buildings: nearly 100%
- schools, gyms, kindergartens: 50%
- office buildings: 40%
- rest (partly redeveloped): 25%

The following measures were implemented:

- thermal insulation of perimetrical walls (in the range from 8 cm to 16 cm)
- thermal insulation of roofs, cellar ceilings
- replacement of windows
- modernisation of heating systems, drinking water- and hot water pipes
- improvement of municipal heating supply

The high percentage of energy-efficient refurbishment is a result of both the aids given and the majority of houses being in the hands of big housing companies. The charts below show the specific features:

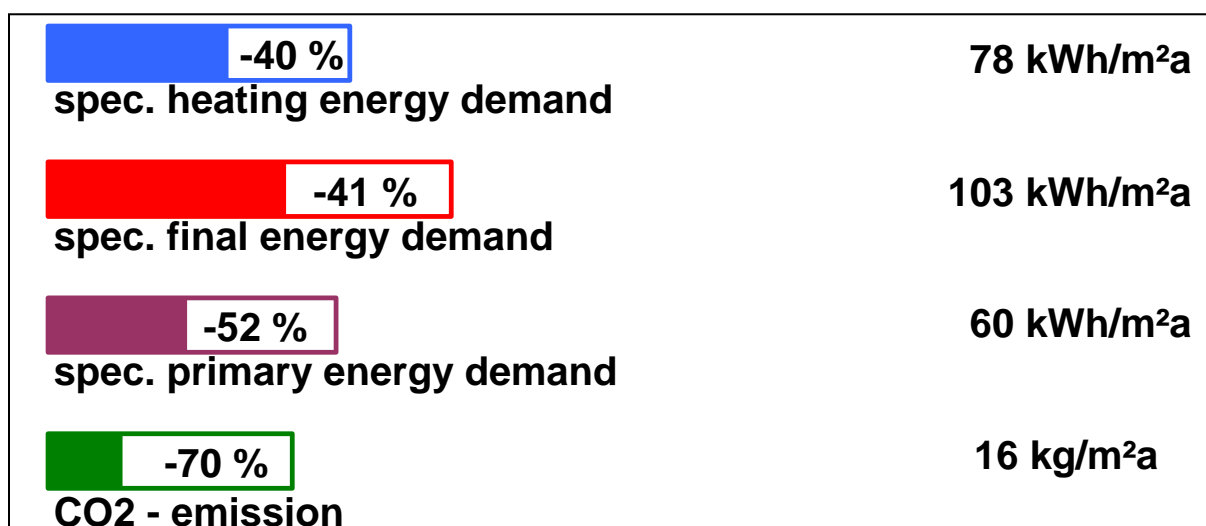


Fig. 41: Specific energetic values and CO<sub>2</sub> emission after refurbishment in Frankfurter Allee Süd



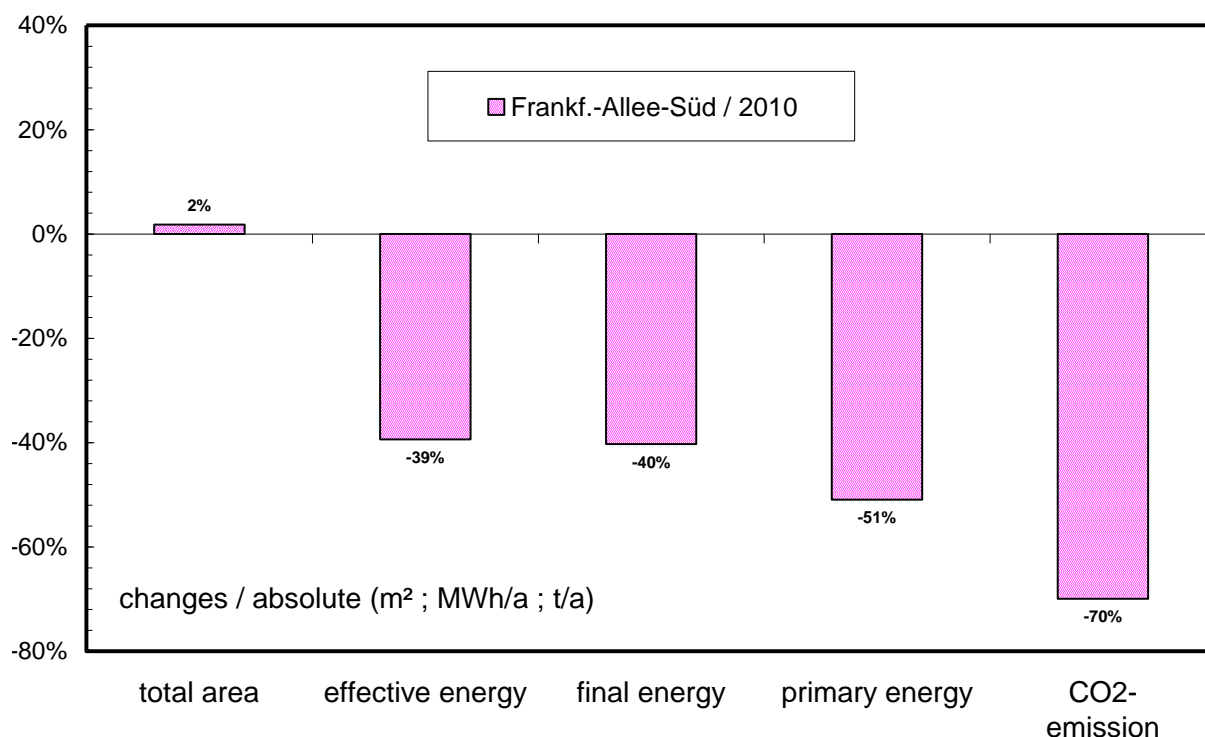


Fig. 42: Results of complex energy efficiency measures in Frankfurter Allee Süd, compared to values of 1991/92

### 8.4.2 Energy Efficiency Measures Kaskelkiez

In Kaskelkiez the results of energy-efficient refurbishment had been a part of an integrated process. Complex reconstruction and modernisation were implemented for 60 % of the buildings, another 15 % were partly renewed. The remaining 25 % show low modernisation standards or are not reconstructed at all. Another result of the integrated refurbishment process was the construction of new houses and the extension of buildings by attic levels.

The economic development of this area was connected with energy-related measures for older buildings respectively with the construction of a complex of buildings due to the resettlement of a big office- and management enterprise.

As many buildings in the neighbourhood are listed, general requirements of monument conservation and specific preservation guidelines described in 'Preservation Statute Kaskelstraße/Victoriastadt' had to be considered. With regard to the targets of redevelopment, a compromise between energy efficiency and conservation practice had to be found.

The following measures were implemented:

- renewal of heating systems (exchange of decentral coal- or gas heatings to efficient central heating systems) on the basis of natural gas
- insulation of the roof during loft conversions to extend residential use
- insulation of the lowest ceiling/basement ceiling
- replacement/refurbishing of old wooden windows
- renovation of the façades (stucco façades) without insulation in the case of historical monument preservation
- insulation only of rear façade surfaces (courtyard or side wing) in the case of buildings protected as historical monuments or with restoration/conservation statutes
- highly qualitative energy reconstruction of single buildings including the use of regenerative energies

Solitary buildings and the question of ownership led to a non-homogeneous level of modernisation of houses, sometimes old and new directly next to one another



Fig. 43: Refurbished and not refurbished building in Kaskelkiez (2010)

The integrated refurbishment led to a considerable improvement of energy efficiency and a minimisation of CO<sub>2</sub> emission. The charts below show the specific features:

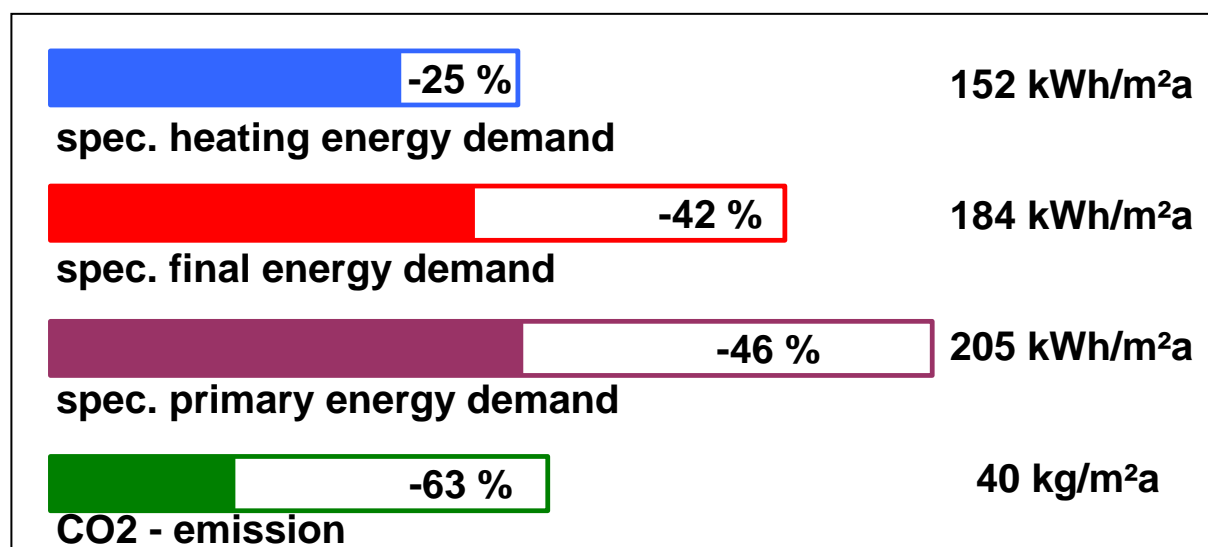


Fig. 44: Specific energetic values and CO<sub>2</sub> emission after refurbishment in Kaskelkiez

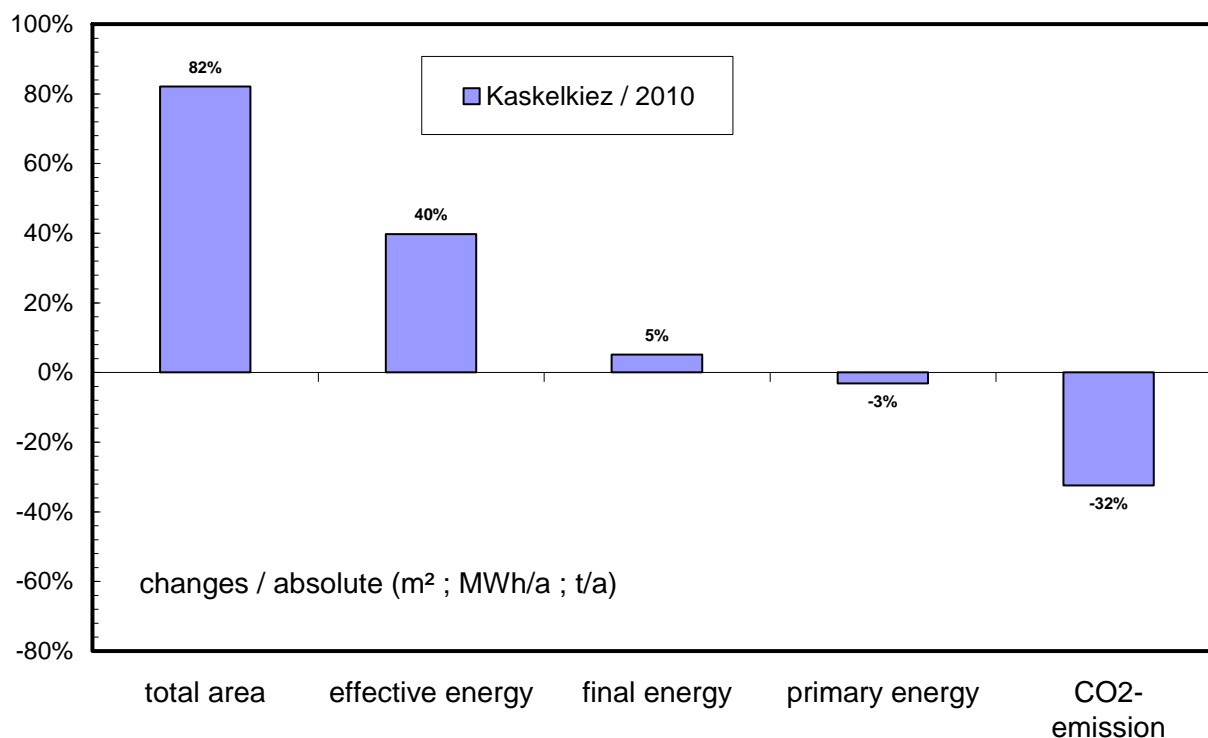


Fig. 45: Results of complex energy efficiency measures in Kaskelkiez, compared to values of 1991/92

## 8.5 Planning Phases with Different Focuses to be Identified

Looking back at the planning situation in the early 1990ies - after needs for actions were stated - not only one integrated planning document had been elaborated for the case study area up to today. In fact a number of integrated plannings have been processed between the early 1990ies and today (planning documents see chapter 6.1). These plannings built up on each other, always updating data and evaluating the area's situation due to the present social, economic and other framework conditions. Some planning objectives were reviewed and different priorities were set. However, it can be clearly seen that the main frame of objectives for the case study area remained the same over the past 20 years. It has always been the main goal to develop liveable neighbourhoods in accordance to social, economic and ecological balance by respecting the existing built structures and cautiously further developing them.

Four phases can be identified; they differ in different focuses that were set:

- 1st planning phase between 1990 and about 1995
- 2nd planning phase between about 1995 and about 2000
- 3rd planning phase between about 2000 and about 2004
- 4th planning phase between about 2004 and today.

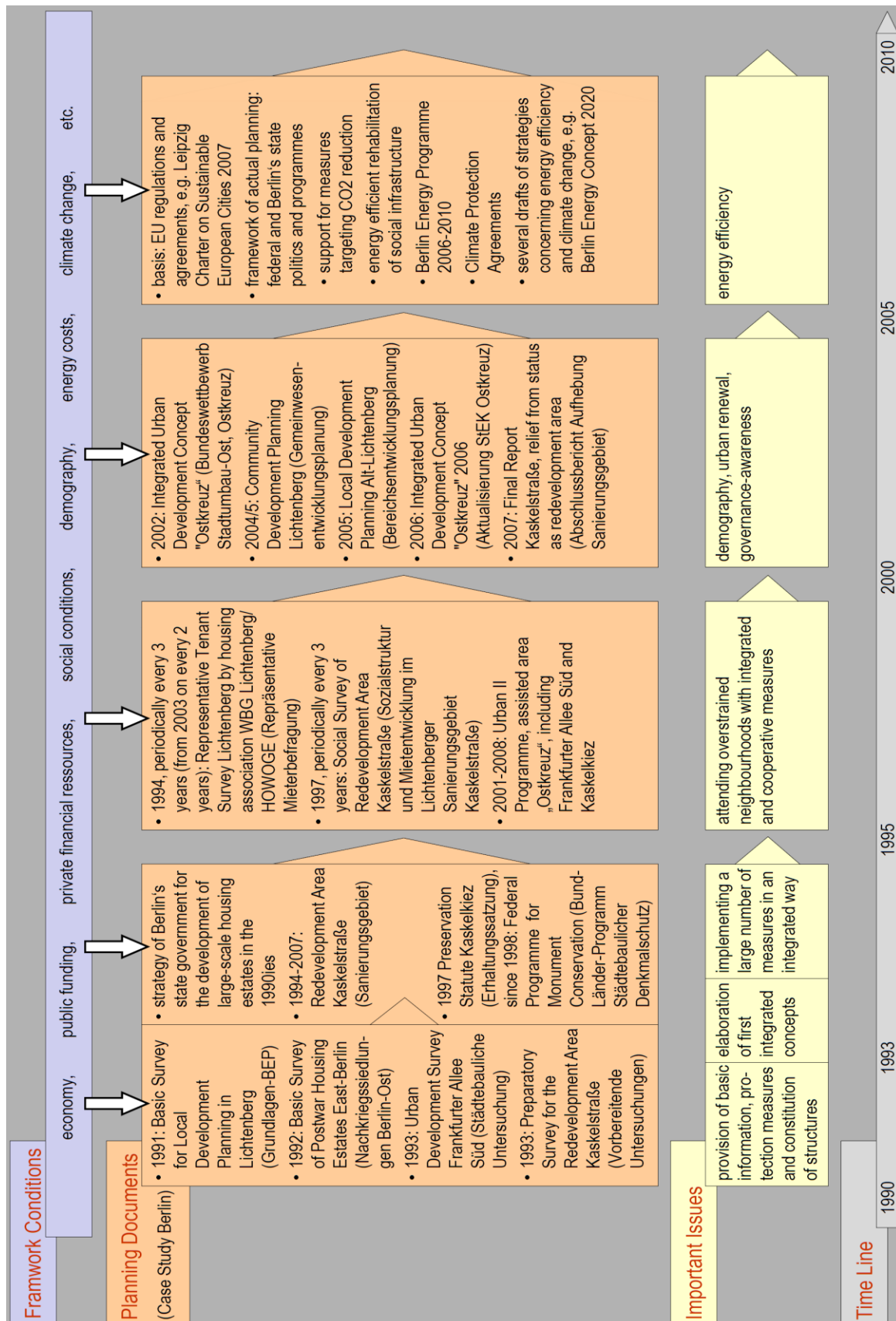


Fig. 46: Main planning processes in the case study area in a time line since 1990

The illustration shows the planning processes for the case study area in a time line between 1990 and 2010. The planning documents (orange colour, see also chapter 6.1) are grouped in four phases which are characterised by important issues (yellow) which were significant in the respective planning phase. A set of framework conditions (blue) shows the context of the planning processes.

#### First Planning Phase (1990-1995): Setting up Basics for Development and First Integrated Concepts

In the first planning phase all basic information about the area was put together (compare chapter 2), was evaluated towards the background of action (see chapter 3). An intensive discussion process about a considerable number of integrated elements took place (see chapter 4) and a lot of different discussion actors were involved (see chapter 5). The results of discussion were merged into the first IUDCs for the case study area (see chapters 6.2 and 6.3). At the same time the pre-conditions for action were clarified. The most important pre-conditions were the constitutions of structures (government, law, administration, housing industry) and the clarification of financing.

Some urgent measures regarding buildings (so called protection measures) were already realised before the integrated planning documents were passed. A large number of measures were started right after the first two integrated planning documents were passed in 1993. The fast implementation of measures was possible because the financial resources and the responsible institutions had been clarified during the planning process.

Energy efficiency measures were also realised already in this first planning phase. In this regard one needs to distinguish between the types of buildings, namely prefabricated buildings and non-prefabricated buildings. Energy efficiency measures were only applied to prefabricated buildings in this early phase. They were realised together (implicitly) within the context of the overall refurbishment.

#### Second Planning Phase (1995-2000): Preparing Integrated Concepts with Focus on Social Issues

The second planning phase was strongly influenced through social discussions. After having concentrated on constructional qualities and measures in the first years after the fall of the Berlin wall, one started to include social issues more intensively into the urban development planning processes. Social conflicts and social inequalities did not arise newly after 1995; they had already been existent in the neighbourhoods in the beginning of the 1990ies, some even earlier (like conflict about the historic building stock of Pfarrstraße).

After 1995 a new term was introduced into the planning discussion, the term "overstrained neighbourhoods". Now special attention was paid to social conditions of living and to what residents brought into discussion. The housing companies started to conduct tenants' surveys. Social conditions in the neighbourhoods were researched in depth; special studies (so called social surveys) were elaborated (see chapter 6.1).

In this planning phase the cooperation with tenants was tried to be intensified. Especially the preparation, and later the implementation, of the programme Urban II had a strong impact on activating more actors and on conducting communicative, social, cultural, employment and economic measures (see chapter 6.4).

### Third Planning Phase (2000-2005): Integrated Concepts Reacting to Population Decrease

In about the year 2000 the population decrease became obvious among all actors.<sup>54</sup> Vacancy of dwellings and a decreasing number of demands for kindergarten and school places appeared clearly in the case study area. As the federal government had prepared a new urban development funding programme ("Urban Restructuring East") and a lot of phenomenon in the case study area indicated that the area was eligible for the programme, a new IUDC was elaborated (see chapter 6.5). The focus of this concept was the so called "adaptation" of the urban structures to the consequences of the decreasing population. The concept resulted in a number of measures that again put the quality of public space and the social infrastructure facilities into focus. This included the enhancement, thus the refurbishment, of social infrastructure. The implementation of the programme (urban restructuring east) together with the possibility of refurbishing infrastructure buildings released an impulse on energy efficiency measures. Since 2002 the public sector conducts energy-efficient refurbishment of the social infrastructure buildings.

### Forth Planning Phase (2005-2010): Energy Efficiency Becomes Important Issue

Due to the Energy Conservation Act (Energieeinsparungsgesetz) of 2005 the federal government of Germany enacted the Energy Saving Regulation "EnEV" (Energieeinsparverordnung - EnEV). Since then the EnEV has been revised several times, each time a higher standard of energy efficiency was set and will be set in the future. The regulation not only applies to new buildings but also to existing buildings. If refurbishment of an existing building takes place the modified or replaced components are subject to requirements oriented to new buildings. This new regulation was complemented by a number of new German funding programmes.

Since about 2005 specific superior energy efficiency measures are conducted by housing companies and private owners on residential buildings. The last residential prefabricated buildings in Frankfurter Allee Süd are refurbished, and that to a high degree of energy efficiency (even higher than the EnEV regulates). The high rise double tower in Schulze-Boysen 35/37, back then Germany's largest residential low energy building, was refurbished in 2005/2006. In Kaskelkiez several energy-efficient refurbishment projects of residential buildings take place, like the housing stock of HOWOGE in Kaskelstraße 25/ Spittastraße 22 and the private owned buildings in Kaskelstraße 49, 50 and 51. The building Kaskelstraße 49 is a good example for high-quality energy-efficient refurbishment with an annual energy consumption for heating and hot water less than 80 kWh/m<sup>2</sup>a. After 2005, energy-efficient refurbishment of prefabricated social and cultural infrastructure was forced even more than after 2002. The reason for this can clearly be identified: The large number of funding possibilities helped the carriers of social and cultural infrastructure (public and private) financing the measures.

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<sup>54</sup> Already after 1995 a lot of scientific literature had described the upcoming population decrease in Berlin, Eastern Germany and Germany. It was only later - when vacancy of buildings could not be overseen any longer - that politicians, planners and housing companies took action.

## 9 Lessons Learned

1. The integrated development of a neighbourhood takes time. Within the exemplary time frame of 20 years many, but not all objectives were reached. Some objectives changed within the development process; however the main frame of objectives stayed. In order to follow sustainable objectives the cooperation and the perseverance of all actors are necessary.
2. The objective of sustainable development has been followed steadily since the early 1990ies in Berlin. The integrated aspect of energy efficiency had been followed imminently in the 1990ies but was fostered strongly and explicitly only since the past years. In this connection Berlin had already good experiences to prove when the objectives and recommendations of the Leipzig Charter on Sustainable European Cities were published in 2007.
3. The elaboration of IUDCs initiates cooperation processes. Common concepts of the public sector, the owners and the local actors strengthen the neighbourhood development. Here all actors need to understand and accept that the aim of energy efficiency is determined strongly by economic benefits for owners and residents. In order to motivate energy-efficient action, information and awareness raising activities help.
4. Single and insulated energy-efficient planning measures are difficult to communicate. But if energy efficiency measures are integrated into the overall neighbourhood improvement, acceptance for energy efficiency measures rises. Especially public investments for visible improvements of public space and public buildings are necessary in order to identify with the development process.
5. A strong base of political, legal, administrative and institutional frame is necessary in order to reach sustainable development. Without forcing a) political commitment, b) legal stability, c) administrative capacities and d) an institutionalised structure of building stock owners in the early 1990ies the successful development of the case study area had not been possible.
6. IUDCs offer a reliable background for neighbourhood development. They are fundamental for public steering of development processes and they offer security for (energy-efficient) investment decisions for housing owners. Therefore the passing of integrated concepts through a political decision is necessary.
7. IUDCs initiate neighbourhood development, a) if the respective planned measures are assigned to responsible institutions and b) if possibilities for financing are presented. Both, public and private resources are necessary for this.
8. Economic reasons, namely economic benefits, play a main role in investment decisions of private owners. Thus also energy efficiency measures at the building stock are subject to investment calculation. Not in all cases owners are able to finance energy efficiency measures and not in all cases energy efficiency measures are refinanced by savings at the running costs. In these cases the linking of energetic objectives to financial funding is an important incentive for energy efficiency measures.
9. The choice of energy sources has a decisive influence on energy efficiency and CO<sub>2</sub> emission. Cogeneration of power and heating or the use of biomass increases energy efficiency. The issue of energy supply needs to be included in the planning process from the beginning.



10. Energy efficiency targets should be defined individually for each area. The targets should be part of the IUDC to be developed, including the specific approach, a time schedule and data of saving potentials.
11. Partial or step-wise renovation measures are possible, but a coordinated overall concept is needed. Otherwise there is a risk of inefficiency, higher efforts in tenant consultancy or even structural damages. In case of financial lacks there should be taken decisions on those measures that bring the highest energy-related effects and/or that can be linked to measures increasing the quality of living conditions.

## 10 Solutions that Could Be Transferable

A lot of German experience and a lot of solutions applied in the case study area of Berlin are transferable to the countries of Urb.Energy partners, although Germany opted for a path different from that taken by most of the other post-socialist countries on their way of privatising the once publicly owned housing stock.

Concerning IUDCs:

- Integrated urban development processes have to include all elements of sustainable urban development, thus including social, economic, ecological and cultural dimensions. The objective of energy efficiency touches all these dimensions.
- IUDCs offer a reliable background for neighbourhood development. They are on the one hand fundamental for public steering of urban development processes and on the other hand they offer security for (energy-efficient) investments of the housing owners. Therefore the passing of IUDCs concepts through a political decision is necessary.
- A far better balance of energy efficiency can be achieved if energy measures are accomplished together and in close cooperation and coordination with the overall development of a neighbourhood or area. Single and isolated energy efficiency measures are difficult to communicate, but if they are integrated into the overall neighbourhood improvement, acceptance for energy efficiency measures rises.
- The elaboration of IUDCs initiates cooperation processes between public, private (housing owners) and local (citizens, public agencies) actors. The objective of energy efficiency can be called upon and private measures can be negotiated and activated if the public sector supports the neighbourhood improvement.
- A strong base of legal, administrative, actor-related and financial frame is necessary to reach sustainable and energy-efficient integrated urban development. Without forcing legal stability, administrative capacity, well-proved participation models, and financial funds and promotion a successful sustainable development of an area is hard to reach.

The holistic approach within the framework of integrated urban development planning, allowing the coordination of measures in both, public and private competence, requires a new way of thinking on all levels:

- National governments should open the way to institutional cooperation by their legislation for urban planning.

- Deciders in municipal administrations are to invite residents concerned by planning initiatives to bring in their concerns and suggestions during the whole planning process. Residents are the local experts, more than any others.
- Municipal politics and the municipal planning authorities have to involve all local institutions within the planning area. Particularly, all so-called "public agencies" (Träger öffentlicher Belange) have to be included into the planning process, cooperating on compromises between goals of conflicting own and public interests. An important public agency regarding energy efficiency is the energy provider (regardless of whether the provider is a public or private company).

#### Concerning Empowerment of the Housing Owners:

Today, housing owners in some post-socialist countries are lacking institutional capacity to order refurbishment and improvement works and to agree contracts concerning financing and refinancing. The scattered ownership ought to be gathered in efficiently organised associations or cooperatives:

- National governments should create the legal framework for more institutional efficiency of housing owners' associations, rendering them capable of acting as partners in the rehabilitation of their housing facilities.
- After transferring the ownership of housing units to the residents, the public authorities should transfer the plots of land (or the leasehold) for residential buildings as well - including courtyards, surrounding greeneries, parking spaces, facilities. Mainly by this transfer owners' associations are becoming capable to receive bank credits, because they can offer securities. - To achieve this goal, a separation of public and private land in the housing area is necessary.
- By transferring the housing units to the residents, the public authorities exonerated themselves from the burden of maintenance. For compensation, the public side ought to provide maintenance funds from the money saved to established housing owners' associations.

#### Concerning Public Funding for Investments into the Housing Stock:

Economic reasons, namely economic benefits, play a main role in investment decisions of private owners. Thus, also energy efficiency measures are subject to investment calculation. Not in all cases owners are able to finance energy efficiency measures and not in all cases energy efficiency measures are refinanced by savings at the running costs. In these cases the linking of energetic objectives to public financial promotion is an important incentive for energy efficiency measures.

In most of the post-socialist EU member-states national funds for improving the existing housing stock have been established: special programmes are targeting to energy efficiency improvements. The conditions of supporting investments are very different. From the German experience, the following conditions are important:

- National funds for improvements of energy efficiency in the housing sector ought to be revolving long-term funds: By opting for the long term, the state creates security with respect to the planning of the relevant actors. Long-running funds can provide support in the medium and long term from the revenues coming in from repayments.

- The principal way of supporting improvement projects ought to be offering credits with subsidised interest rates.
- Credit takers are to receive financing mainly for small measures step-by-step, not only for measures covering the total extent of possible or desirable improvements.

#### Concerning Improvement Necessities of the Housing Stock:

Systematic surveys concerning the physical state and all circumstances of the housing stock are indispensable. They have to include not only necessary improvements in favour of energy efficiency, but a careful analysis of the solidity of the building structures and their technical equipments (electricity supply and water, waste water and heating systems) too. Improvement concepts are to be derived from this analysis, for the entire area as well as for each of its buildings, differentiating between measures necessary to retain structural integrity, those intended to improve energy efficiency and those desirable to improve the attractiveness of the area, which could initially be separated from the others.

The use of simple parameters to compare energy efficiency of the buildings seems to be a helpful instrument.

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