ARGUS

STADT- UND VERKEHRSPLANUNG

01

ARGUS: NEW PATHS INTO T

Our transportation office in Hamburg has been working as a service provider for the public authorities and private companies in the entire range of traffic engineering and transport planning since it was founded in 1983. ARGUS develops cooperative and interdisciplinary future-oriented solutions which take into consideration today's town planning and traffic-specific requirements. To accomplish this, we employ the state of the art engineering and planning methods and instruments.

ARGUS stands for competent and uncomplicated cooperation with short decision-making paths during all stages of planning and execution stages. Maintaining an objective view along with the commitment to adhere to schedules and striving for the highest professional and formal quality is our basic principle of our work. Based on broad range of expertise, ARGUS provides its customers with a comprehensive range of consulting services and thus avoids unnecessary friction in project realisation.

Office management

Konrad Rothfuchs, Grad. Eng., DOB 1962. Study of civil engineering at the Hildesheim-Holzminden University of Applied Sciences as well as city planning and urban planning at the Technical University of Hamburg-Harburg. Head of the coordination committee of the Federal Association of Road Construction and Traffic Engineers (BSVI), the Association of Freelance Road Construction Engineers in Hamburg (VFIS) and vice president of the Hamburg Chamber of Construction Engineers. Member of the Urban Development Council of the Hamburg Chamber of Architects.

Thorsten Buch, Grad. Eng., DOB 1972. Study of civil engineering at the Technical University of Hannover. Deputy member of the Coordination Committee of the Federal Association of Road Construction and Traffic Engineers (BSVI).

THE FUTURE

Range of services

Consulting:

Traffic concepts and moderation of planning processes

Analysis:

Traffic surveys and traffic analyses

Research:

Praxis-oriented traffic research

Planning:

Planning of traffic systems (work stages 1-5, Fee Structure for Architects and Engineers)

Traffic engineering:

Capacity verifications, planning of traffic lights and traffic management

Project management:

Project coordination, work scheduling, tendering and placing (work stages 6-7, FSAE)

Construction supervision:

Overall site supervision and local supervision of building (work stages 8-9, FSAE)

Safety audit:

Performance of safety audits for urban streets according to ESAS

02

HAFENCITY HAMBURG

Client:	HafenCity Hamburg GmbH
Processing:	since 2000
Construction period:	since 2000
Services:	Traffic concepts, work stages 1-9, Management coordination and work scheduling

One of the biggest urban regeneration projects in Europe, the Hafencity Hamburg, has been under construction in Hamburg since 2000. Following the key objectives of a modern European city, a new district with an urbane mixture of living, culture, leisure, tourism, commerce and trade is created for about 12,000 inhabitants and 40,000 employees. This requires adjustable and flexible concepts for the public space which greatly comply with future-oriented and sustainable planning principcles and follow an interdisciplinary understanding of planning. ARGUS has been significantly involved in the development process of the Hafencity Hamburg with numerous fundamental concepts, continuous consulting and comprehensive draft and execution planning since 2000.

- **Consulting** ➔
- Analysis
- Research
- Planning
- Traffic engineering
- Project management
- Construction supervision
- Safety audit

Interdisciplinary development of traffic concepts

The overlapping of the many urban usage requirements for the public space, the challenges of brownfield development projects, the direct connection to the dense urban fabric of Hamburg as well as the high number of persons involved in the planning require interdisciplinary handling of the issues. In addition to the development of integrated concepts for pedestrians, cyclists and motorised traffic, ARGUS is also responsible for the functionality of the warft concept for the flood control of HafenCity.

- Consulting
- Analysis
- Research
- **Planning** ➔
- Traffic engineering
- Project management
- Construction supervision
- Safety audit

Sophisticated street design

A city worth living in can only be created with the highest demands for the public space. Therefore very high requirements and design demands are put on the street design of the HafenCity. Since the beginning with the first new street "Großer Grasbrook", ARGUS has shaped and accompanied the dynamic development process in the fields of planning, design and construction supervision.

Newly constructed Shanghaiallee according to ARGUS designs

Consulting
Analysis
Research
Planning
Traffic engineering
Project management
Construction supervision
Safety audit

Macroscopic transport demand model and modelling of traffic flows

Based on the master plan, ARGUS has created a macroscopic transport demand model for motorised private transport with the software VISUM in order to illustrate and assess the effects of a gradual development of HafenCity on the road network. With this model, essential decisions in infrastructure planning could be discussed profoundly in advance thus saving costs. With the help of the VISSIM software, the traffic flows of all traffic types were simulated and visualised in the area of the western HafenCity. Important insights into optimising the highly strained streets could be gained here. During the site development of the Elbphilharmonie, a new landmark of Hamburg built according to the plans of the renowned Swiss architects Herzog & de Meuron including one of the finest concert halls in the world, the pedestrian flows were simulated with VISSIM / VISWALK in order to be able to better assess the dimensioning of the pedestrian surfaces.

Consulting
Analysis
Research
Planning
Traffic engineering
Project management
Construction supervision
Safety audit

Flexible project coordination

Next to the classic engineering services, ARGUS has also taken on important tasks like coordination of service providers and control of parallel structural and underground engineering work using the state of the arte project management procedures. A flexible and detailed listing of the individual influencing factors helped quickly assess many project sequence issues with regard to their functional and financial effects and thus decisively accompany a well-founded decision making.

Concrete guidance elements for temporary protection of sideswalks

Empty conduits of a planned line route within a bridge abutment

03

EXPANSION OF SENGELMAN

Client:	Free and Hanseatic City of Hamburg
Processing:	2000-2006
Construction period:	2001 and 2007 / 2008
Production costs:	about 8.4 million euros
Services:	Analysis of variants, work stages 1-5 and work scheduling, utility line route planning, in part work stages 6-9

Next to a regional grid function, Sengelmannstraße is essential for the connectivity of Hamburg Airport. The increase in traffic due to the construction of the Fuhlsbüttel by-pass urgently required expansion as well as a basic restoration of the entire street.

Because of the completion of the Fuhlsbüttel by-pass, planning and production was done in two construction stages (north and centre). Large sections had to be realised within one year. Especially the northern part of the measure was fully planned and realised by ARGUS in close coordination with the authorities.

- Consulting
- Analysis
- Research
- **Planning**
- Traffic engineering
- Project management
- Construction supervision
- Safety audit

Analyses of variants to amend the grid structure

The goal of the Sengelmannstraße expansion was to create a grade-separated junction to the south, incorporating the Hebebrandstraße and Jahnring arterial roads. The analyses of variants focused on traffic flows and cost issues and especially on urban development qualities.

Site plan of the street design of Sengelmannstraße

NNSTRASSE

- [ ] Consulting
- [ ] Analysis
- [ ] Research
- [x] Planning
- [ ] Traffic engineering
- [ ] Project management
- [ ] Construction supervision
- [ ] Safety audit

Custom solutions for utility line route planning

Utility line design is gaining in importance with tightly scheduled construction projects because of its varied requirements. Next to subsurface utility mapping and engineering, ARGUS therefore carries out in-depth coordination of the required new laying and relocation of different utility operators. Through the development and planning of innovative solutions like multi-carrier utility ducts for all telecommunication providers, ARGUS helps save costs and space.

- [ ] Consulting
- [ ] Analysis
- [ ] Research
- [x] Planning
- [ ] Traffic engineering
- [ ] Project management
- [ ] Construction supervision
- [ ] Safety audit

Detailed work scheduling

A short lead time, an extremely short processing time as well as the complexity of the task required the development of detailed work schedules. Accessibility of the Hamburg airport, the Evangelische Stiftung Alsterdorf (ESA) and the Philips Medizin Systeme GmbH could be ensured despite the expansion. Next to a precise consideration of the regional traffic routing during the construction stages, timely completion of the construction also required detailed coordination of schedules and the division of the work steps.

- [ ] Consulting
- [ ] Analysis
- [ ] Research
- [ ] Planning
- [ ] Traffic engineering
- [x] Project management
- [ ] Construction supervision
- [ ] Safety audit

Competent overall site supervision and construction supervision

In order to avoid traffic disruptions and maintain important connection functions, the carriageway of the first construction stage was completed during the summer holidays. Very good knowledge of the structures of all involved institutions helped avoid friction losses and allowed timely realization of the expansion within the specified budget.

04

BASIC RESTORATION OF HEIDENKAMPSWEG

Client:	Free and Hanseatic City of Hamburg
Processing:	2002-2003
Construction period:	2003
Production costs:	about 4 million euros
Services:	work stages 6-9 and work scheduling, utility line route planning

Crack formation and massive rain grooves on the street surface urgently required basic restoration of the Amsinckstraße / Billhorner Brückenstraße junction. Within the scope of this measure, the turning lane from Billhorner Brückenstraße to Amsinckstraße was to be adjusted along with the carriageway level in the area of Billstraße / Billhorner Brückenstraße. The Amsinckstraße / Billhorner Brückenstraße junction covers a total area of approx. 16,000 m^2 and is situated in the extension of the A 255 motorway and the bridges across the Elbe. It plays an important part in the distribution of the traffic in Hamburg's districts. In addition, the junction is of trans-regional importance to the traffic between the motorways A 1 and A 7, so that production had to be realised while maintaining efficiency.

- Consulting ☐
- Analysis ☐
- Research ☐
- **Planning ➔**
- Traffic engineering ☐
- Project management ☐
- Construction supervision ☐
- Safety audit ☐

Detailed work scheduling

The complexity of the task required the development of a detailed construction sequence concept while guaranteeing the possible management of the existing traffic. Three version regarding number of construction stages, construction times, interference with the surroundings, costs and feasibility of the construction work sequence were initially assessed and compared. A construction sequence concept that guaranteed efficient handling of the traffic during the construction process despite the high traffic load of approx. 130,000 motor vehicles per day in the Billhorner Brückenstraße area, approx. 63,000 motor vehicles per day on Amsinckstraße and approx. 57,000 motor vehicles per day on Heidenkampsweg was subsequently created for the selected version.

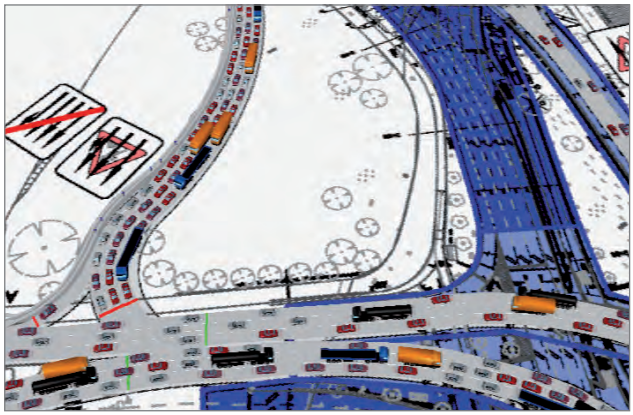
During the development of the work schedule, the existing bus lines of the public transport required special consideration due to the accessibility requirement to the south. Complex solution options could be developed for this in close cooperation with Hamburg Hochbahn AG.

After coordinating the construction work sequence with the involved parties, traffic routing plans were developed based on the construction stage plans, which included the traffic routing in the building plot as well as the development of the signposting of efficient detour routes as well as large-scale direction signage on the adjacent motorways.

- Consulting
- Analysis
- Research
- Planning
- Traffic engineering
- Project management
- **Construction supervision**
- Safety audit

Competent overall site supervision and construction supervision

The comprehensive works on the junction required performance of road construction from April until October. Intensive overall site supervision and construction supervision by ARGUS enabled the realisation of timely measures within the specified budget. Ensuring a smooth sequence required the best professional know-how along with very good knowledge of the structures of all involved institutions.



Microscopic traffic flow simulation with VISSIM to check the planned construction site traffic routing

05

PUBLIC TRANSPORT PRIOR
IN TRAFFIC LIGHT CONTRO

Client:	Südholsteinische Verkehrsgesellschaft mbH (SVG)
Processing:	2008
Construction period:	2008
Services:	Work stages 1-6

High schedule precision is of utmost importance to the improvement of the acceptance of public transport. This requires minimization of the loss of travel time for the most part, especially at traffic lights. Based on this objective, ARGUS was commissioned by Südholsteinische Verkehrsgesellschaft mbH (SVG) to design and realise bus acceleration measures at selected traffic lights in Schenefeld. Next to Schenefelder Platz as the central interchange point, the lights at Altonaer Chaussee / Osterbrooksweg intersections and Blankeneser Chaussee / Osterbrooksweg were equipped with public transport prioritisation.

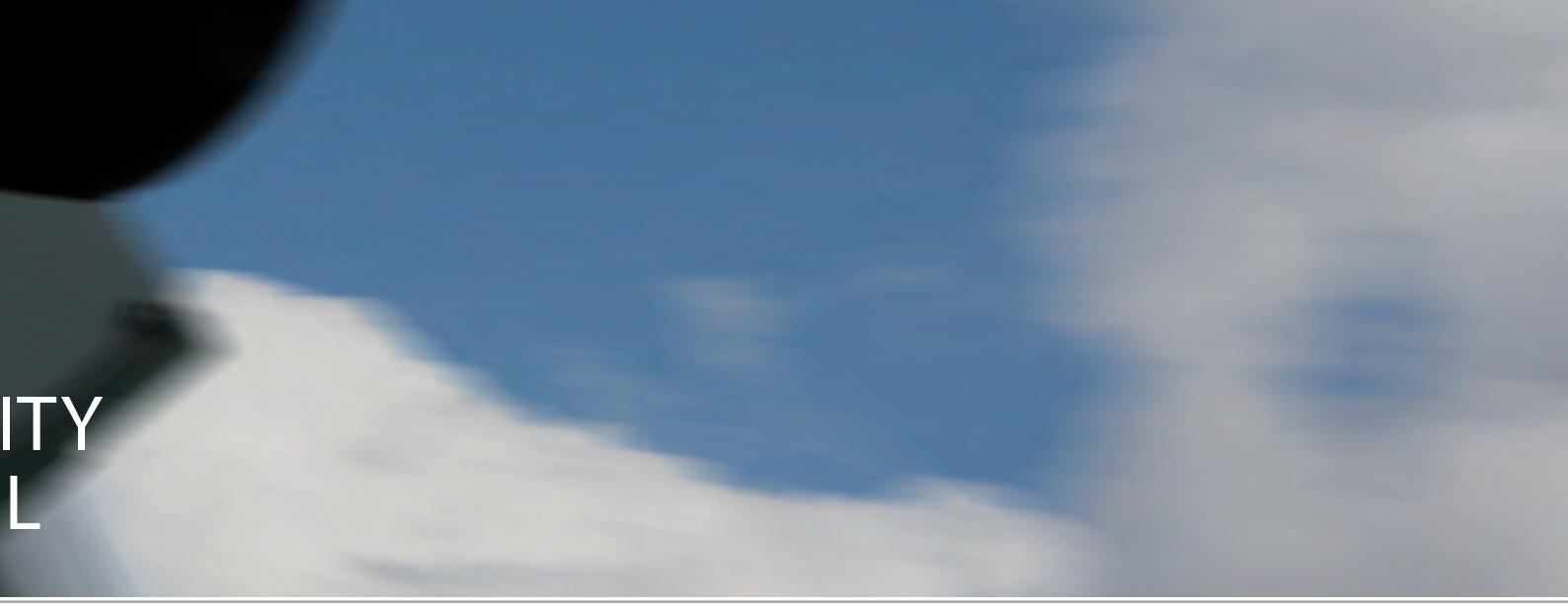
- Consulting
- Analysis
- Research
- Planning
- **Traffic engineering**
- Project management
- Construction supervision
- Safety audit

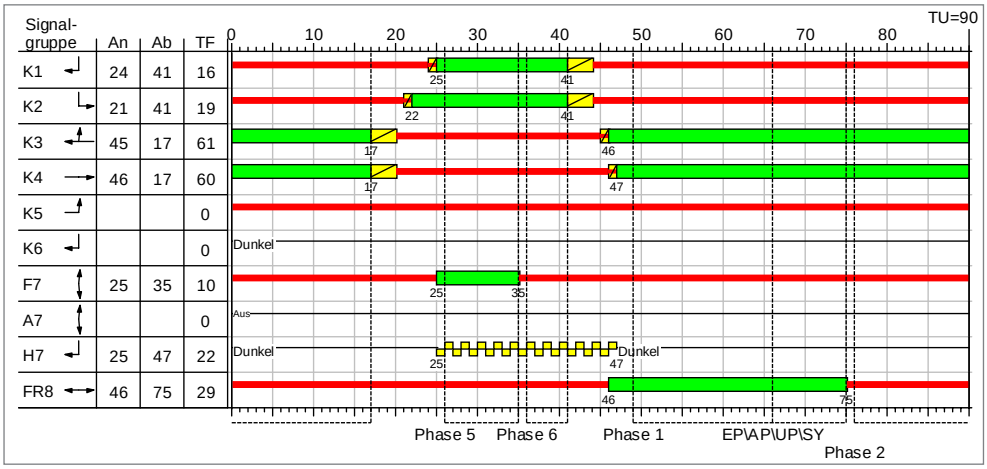
Optimisation of traffic-dependant traffic light control

Because the existing control method no longer meets today's demands for efficient traffic control, ARGUS used a traffic survey as a basis to integrate an optimized stage sequence for all traffic participants into the traffic light control and adjust it to the needs of pedestrians, motorised vehicle traffic and public transport. Early registration of the public transport vehicles at the control panels allows modification of the traffic light system sequence to the point that these will have a go signal when reaching the traffic light system. The phase sequence provides the following additional switching alternatives for this:

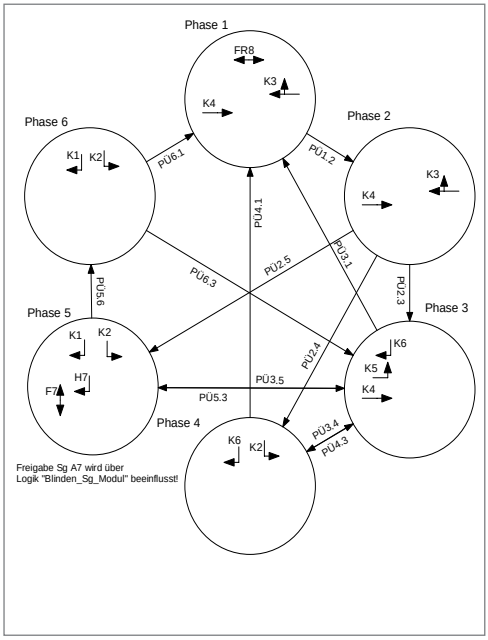
1. Phase advancing: The public transport phase starts earlier than in the basic plan. The upcoming motor vehicle phase is interrupted at the time of the projected arrival of the buses.
2. Phase extension: The public transport phase is extended until the log out of the buses. The competing phases will be disadvantaged accordingly.
3. Phase exchange: The regular phase sequence is changed in favour of the public transport phase.

The minimized loss of travel time projected by ARGUS was confirmed by SVG after the commissioning of the optimised traffic-dependant controls and thus contributes to an increase in passenger satisfaction.

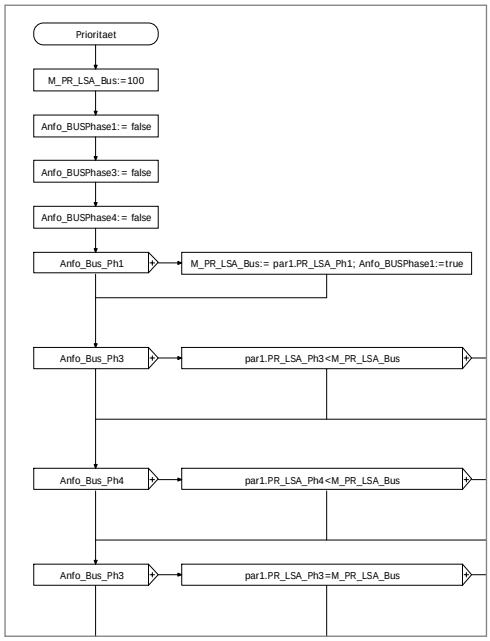




Signal schedule to illustrate the green phases of the individual traffic streams



Phase sequence schedule for the control of the traffic at the junction



Excerpt from the logic of a traffic light system

06

LORRY DISPATCH SYSTEMS ALTENWERDER CONTAINER

Client: HHLA Container Terminal Altenwerder GmbH

Processing: 2008

Services: Analysis and planning

In the last years, the Hamburg harbour recorded a dynamic increase in for container handling. Expansion and reconstruction of the existing interchange and check-in gates at the container terminal Altenwerder became necessary. As a result of the increase in handling capacity, a growth in lorry traffic is o be expected. At the same time, dispatching of the lorries at the terminal will be automated and optimised continuously. In order to be able to ensure the efficiency of the terminal during the gradual expansion, temporary systems had to be designed parallel to the construction of the new dispatch systems. It was especially important to find sequence- and space-efficient solutions that meet the special requirements of customs and other services.

- Consulting ☐
- Analysis ☐
- Research ☐
- **Planning ➔**
- Traffic engineering ☐
- Project management ☐
- Construction supervision ☐
- Safety audit ☐

Design of efficient driveways

In close cooperation with the planning department of Hamburger Hafen und Logistik AG (HHLA), ARGUS first developed different alternatives of possible inter-change layouts. The subsequent step-by-step optimisation of the preferred alternative was done stipulating intuitive orientation of the lorry drivers on site as well as the presence of sufficient traffic jam and manoeuvring space for the lorry so that high ease of use together with high traffic safety could be achieved for all traffic participants.

- Consulting ☐
- **Analysis ➔**
- Research ☐
- Planning ☐
- Traffic engineering ☐
- Project management ☐
- Construction supervision ☐
- Safety audit ☐

Lorry dispatch simulation

ARGUS examined the crucial congestion scenarios of the preferred alternative using the microscopic traffic flow simulation software VISSIM in coordination with the client. The created simulations delivered important information on the development of possible congestion situations during lorry dispatch and gave indications of how these could be prevented.

AT
R TERMINAL

Microscopic traffic flow simulation with VISSIM to examine the planning versions for lorry dispatch

Container loading at the terminal Altenwerder

07

MASTER PLAN OF THE URB
BERLIN HEIDESTRASSE

Client: Vivico Real Estate GmbH Berlin
Processing: 2008-2009
Production costs about 20 million euros
Services: Traffic analyses, site development concepts, preliminary planning of the traffic systems

North of Berlin's main railway station, an area of about 40 h is turned into a new quarter with an urban mixture of work and living. Close interdisciplinary cooperation with Cologne-based architects and planners ASTOC, landscape palnners UC from Berlin, the Senate Administration for Urban Development as well as the district office of Berlin-Mitte, ARGUS was involved in the establishment of the master plan.

- Consulting ☐
- Analysis ➔
- Research ☐
- Planning ☐
- Traffic engineering ☐
- Project management ☐
- Construction supervision ☐
- Safety audit ☐

Generation of traffic forecasts

To estimate the expected traffic streams in the master plan area, ARGUS generated traffic forecasts for the planning horizons of 2015 and 2025. These served as the basis for the assessment of junctions and street design. A total of two planning alternatives were examined: Alternative 1 shows the reallocation of new traffic in the existing road network of the vicimity. Alternative 2 shows the effects of a possible reduction of Sellerstraße to two lanes.

To calculate the zero case prognosis for 2015, the software VISUM was initially used to integrate the results of the traffic planning analysis for the extension of the planned street on Westhafen as well as the development plan 1-19 (new building of the Federal Intelligence Service) into a traffic model. The road network also had to be refined around Heidestraße in order to show the effects on the accessibility of the surrounding areas. The subsequent projection of the generated traffic for the 2025 zero version was based on the projected land use.

AN QUARTER

Consulting
Analysis
Research
Planning
Traffic engineering
Project management
Construction supervision
Safety audit

Traffic site development and preliminary planning of the traffic systems

For the plot with a space of 40 h, ARGUS designed development concepts for all transport modes. Next to the assessment of the motorised private transport and public transport, special emphasis was put on bicycle and pedestrian traffic. An important aspect here was overcoming the separating effect of a canal and railway line.

The development of a preliminary planning concept was done allowing for different user requirements (longitudinal and crossing pedestrian parallel and cross traffic, parking, deliveries and loading, bicycle traffic, public transport, leisure). Different standard cross-sections were developed for the individual street categories. A special challenge here was the transformation of Heidestraße, a highly congested trunk road with 50,000 motor vehicles per day high, into a metropolitan boulevard. The efficiency of all junctions was subsequently examined, appropriately dimensioned and the expenses for the necessary traffic systems estimated.

Consulting
Analysis
Research
Planning
Traffic engineering
Project management
Construction supervision
Safety audit

Development of a supply and disposal concept

ARGUS used the subsurface utility mapping to create concepts for the supply networks for water, electricity, gas and telecommunication as well as the disposal of waste and rain water. These formed the basis for the development costs estimate.

Town planning model of the Heidestraße master plan

Macroscopic transport model with VISUM

08

IMPLEMENTATION OF THE EU ENVIRONMENTAL NOISE

Strategic noise action plan for Hamburg

Client:	Free and Hanseatic City of Hamburg
Processing:	2008
Services:	Project management, analysis and consulting
Project partner:	Lärmkontor GmbH, LK Argus GmbH, konsalt GmbH

The objective of the EU Environmental Noise Directive is to reduce the number of person affected by noise in the long term. Together with its project partners Lärmkontor, LK ARGUS and konsalt, ARGUS created a strategic noise action plan for the Free and Hanseatic City of Hamburg. Next to project management, ARGUS was particularly responsible for the analysis of existing planning instruments with regard to their relevance and efficacy for the noise action plan as well as the traffic technology assessment of the proposed measures for noise reduction.

Consulting ☐
Analysis ➔
Research ☐
Planning ☐
Traffic engineering ☐
Project management ☐
Construction supervision ☐
Safety audit ☐

Strategic approach to noise reduction

The EU Environmental Noise Directive was implemented with a two-stage approach in Hamburg. First, a strategic noise action plan was created for the entire city, which takes into consideration all border and district spanning noise sources and which provides fundamental recommendations for reducing noise pollution in Hamburg. Based on this strategic plan, local noise problems were solved on a regional level in the subsequent second phase.

Consulting ➔
Analysis ☐
Research ☐
Planning ☐
Traffic engineering ☐
Project management ☐
Construction supervision ☐
Safety audit ☐

Action concept for motor vehicle traffic

The focus of the strategic noise action plan is on motor vehicle traffic because Hamburg has the highest influence here. During a first step, a variety of planning instruments were examined and evaluated with regard to existing measures that are relevant to noise action planning. The consequently developed action concept with its 12-step program combines all important and effective approaches and incorporates further suggestions gathered in interviews with technical authorities as well as from the public. The "Lärmforum Hamburg", specially founded for public relations, served as a communication platform for authorities, associations, organisations and societies that deal with the subject of environmental noise and supported the direct and fast exchange of information.

E DIRECTIVE

Implementation and support for the enforcement of the EU Environmental Noise Directive (FKZ 3707 51 100)

Client: Federal Environment Agency

Processing: 2008-2009

Services: Analysis and research

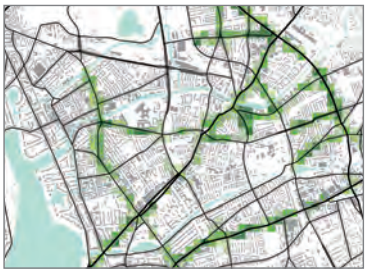
Project partner: Lärmkontor GmbH, LK Argus GmbH, Wölfel Meßsysteme - Software GmbH + Co. KG, Free and Hanseatic City of Hamburg

The EG Environmental Noise Directive stipulates measuring of noise pollution in built-up areas and from main sources of traffic with the help of research models. Based on the action concept of the strategic noise action plan for Hamburg, the noise model TraNECaM was used to examine the effect of the approaches stipulated there on the reduction of motor vehicle noise. The goal of the project was to use the computer model to develop generally transferable statements regarding the efficacy of noise reducing measures.

- Consulting ☐
- Analysis ☐
- Research ➔
- Planning ☐
- Traffic engineering ☐
- Project management ☐
- Construction supervision ☐
- Safety audit ☐

Effect assessment of noise reducing measures

Within the scope of the research project, ARGUS was responsible for the identification and assessment of the measures of the strategic noise action plan for Hamburg in terms of motor vehicle traffic. ARGUS was able to assess these measures, combined according to the goals of promoting public transport, bicycle traffic, a spatial shift of traffic as well as an improvement of the traffic flow, with regard to their influence on traffic volume, traffic structure as well as speed limit. The results were then integrated into a computer sound model and the effect of the measures illustrated with noise emission maps. The Federal Environment Agency published the project results in a leaflet and presented during a convention in Hamburg.



Measure effectiveness without carriageway renovation

Effect of carriageway renovation

09

LOCAL MOBILITY CONCEPT

Promotion of pedestrian and bicycle traffic in the Barmbek-Süd quarter

Client: Free and Hanseatic City of Hamburg, district office Hamburg-Nord

Processing: 2008-2009

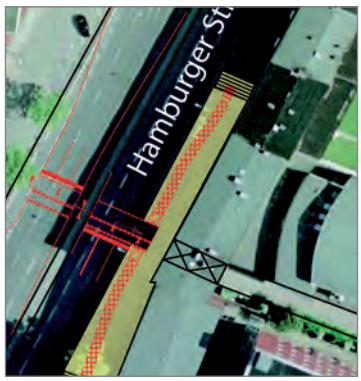
Services: Analysis and consulting

During the development of the quarter Barmbek-Süd, the residents expressed their desire for an improvement of the traffic situation for pedestrians and cyclists. By order of the district office of Hamburg-Nord, ARGUS developed the appropriate expert opinion.

Consulting ☐
Analysis ➔
Research ☐
Planning ☐
Traffic engineering ☐
Project management ☐
Construction supervision ☐
Safety audit ☐

Analysis of the actual state and realisation costs

Next to an analysis of the settlement structure and the accident occurrence, ARGUS examined the framework conditions for non-motorised traffic street by street. The deficiencies found were assessed according to their effects as well as their urgency. ARGUS subsequently developed improvement suggestions for the prioritised areas to increase safety and the level of convenience for pedestrians and cyclists and assessed the realisation costs of the suggested measures.

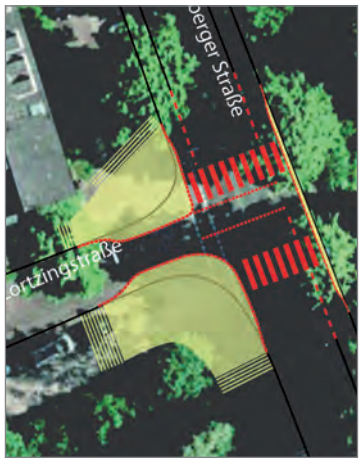


Diversion of a bicycle path to avoid conflicts with pedestrians

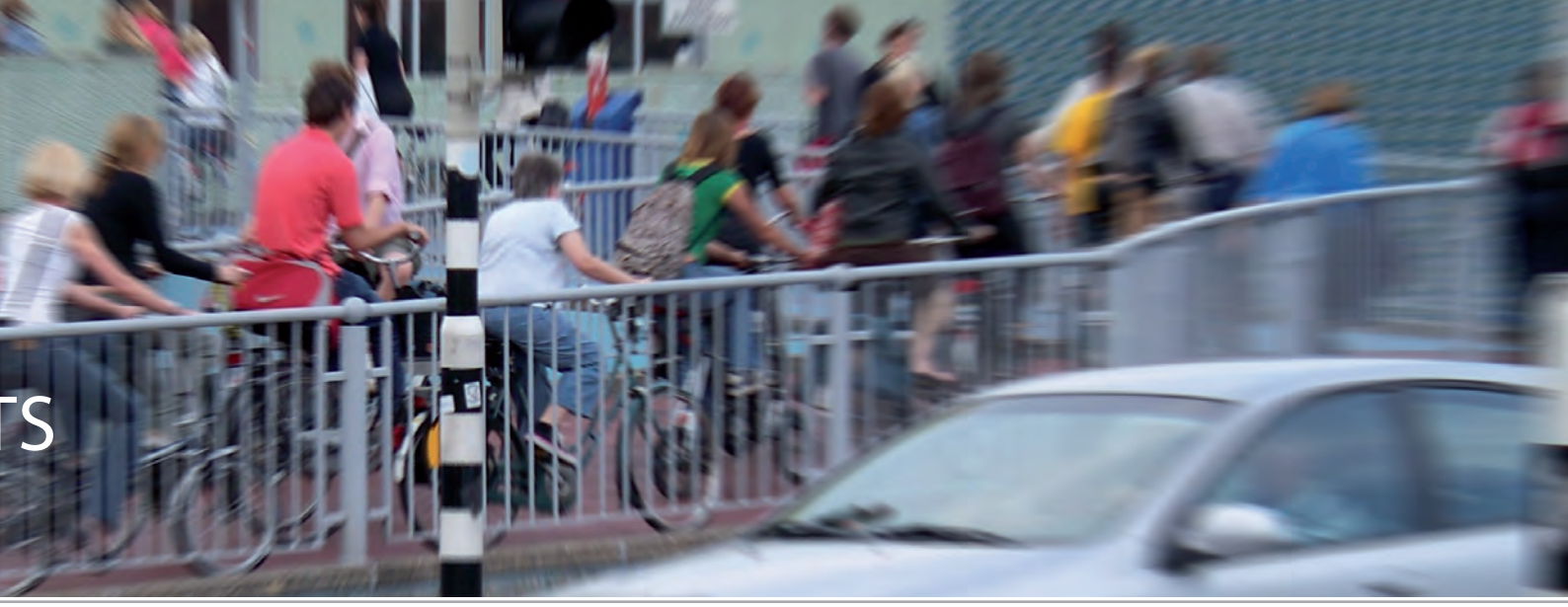
Consulting ➔
Analysis ☐
Research ☐
Planning ☐
Traffic engineering ☐
Project management ☐
Construction supervision ☐
Safety audit ☐

Improvement of local mobility

Using the analysis as a basis, ARGUS developed suggestions for measures to improve local mobility in Barmbek-Süd. Special emphasis was put on facilitating crossing bicycle traffic in the course of a bike trail. The focus was always on functioning visibility and direct paths to T-junction areas, the reduction of crossing distances as well as the improvement of visibility of pedestrian traffic at neuralgic points. By and large, soujourn quality and freedom of movement in the evolving quarter centre could also be raised.



Double cross walk with bicycle path crossing in between and pulled-out sides



Bicycle traffic concept for the city of Wedel

Client: City of Wedel

Processing: 2007-2008

Services: Analysis, grid development and planning of measures

The mission statement as well as the traffic development plan of the City of Wedel set a new focus on the promotion of bicycle traffic. The drafting of an appropriate bicycle traffic concept paved a fast and effective way to more and safer bicycle traffic in the city.

- Consulting ☐
- Analysis ☐
- Research ☐
- **Planning ➔**
- Traffic engineering ☐
- Project management ☐
- Construction supervision ☐
- Safety audit ☐

Bicycle route planning

The starting points for bicycle-friendly reorganisation of the paths and streets of the City of Wedel were a survey of cyclist on site, comprehensive accident analyses as well as an intensive examination of local settlement structures and the transport demand to be derived from them. This resulted in a total of eight corridors of major importance for bicycle traffic which ARGUS used to develop so-called “Veloroutes“. During the subsequent planning at measures, their adequacy for bicycle traffic was improved and they were linked with existing leisure paths on the outskirts.

- **Consulting ➔**
- Analysis ☐
- Research ☐
- Planning ☐
- Traffic engineering ☐
- Project management ☐
- Construction supervision ☐
- Safety audit ☐

Realisation process

The developed "Veloroutes" were approved by the politicians and could be realised step by step thanks to the priorities suggested by ARGUS. The pilot introduction of safe zones in the municipal area followed after a short time already. Especially the concept of using new ways to guide bike paths proved to be very popular with the city and the local group of the General German Bicycle Association (ADFC) and was promoted to the public.

Bicycle-friendly traffic routing through the Installation of a roundabout

10 CONSULTING FOR DEVELO FOR PRIVATE INVESTORS

Client: Allianz Immobilien GmbH, August Prien Bauunternehmung GmbH & Co. KG, B&L Immobilien AG, DWI Grundbesitz GmbH, HafenCity Hamburg GmbH, HOCHTIEF Projektentwicklung GmbH, Norddeutsche Grundvermögen Bau- und Entwicklungsgesellschaft mbH & Co. KG, Otto Wulff Bauunternehmung GmbH & Co. KG, Procom Unternehmensgruppe, Quantum Projektentwicklung GmbH, …

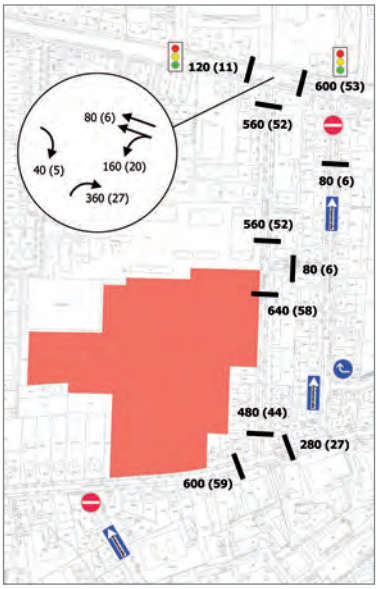
Services: Traffic impact studies, consulting

ARGUS has provided successfully advice to private enterprise for development issues for many years. As a competent partner, we accompany our customers from the initial concept to drafting the development plan as well as through all other phases of project development and planning all the way to execution. Especially our long-standing planning experience in Hamburg and excellent contacts with decision makers ensures fast project progress and often promotes communication in difficult situations. This large range of services and the various competencies of its employees allow ARGUS to clarify possible conflicts of later project stages with targeted advance consulting and helps to avoid delays.

- Consulting
- Analysis
- Research
- Planning
- Traffic engineering
- Project management
- Construction supervision
- Safety audit

Traffic impact studies development projects

The growing attractiveness of cities yields for an increasing demand for inner-city residential and commercial areas. The realisation of new construction projects in built-up downtown areas in part results in considerable changes to the traffic situations in the vicimity. Before the proceedings for granting permissions are started, the effects of the construction projects on the existing transport system and its functionality should therefore be investigated. ARGUS examines the development of concepts for interior and exterior site development along with the possible management of the new traffic that is to be expected in the surrounding road network, creates parking lot balances and develops parking, delivery and disposal concepts.



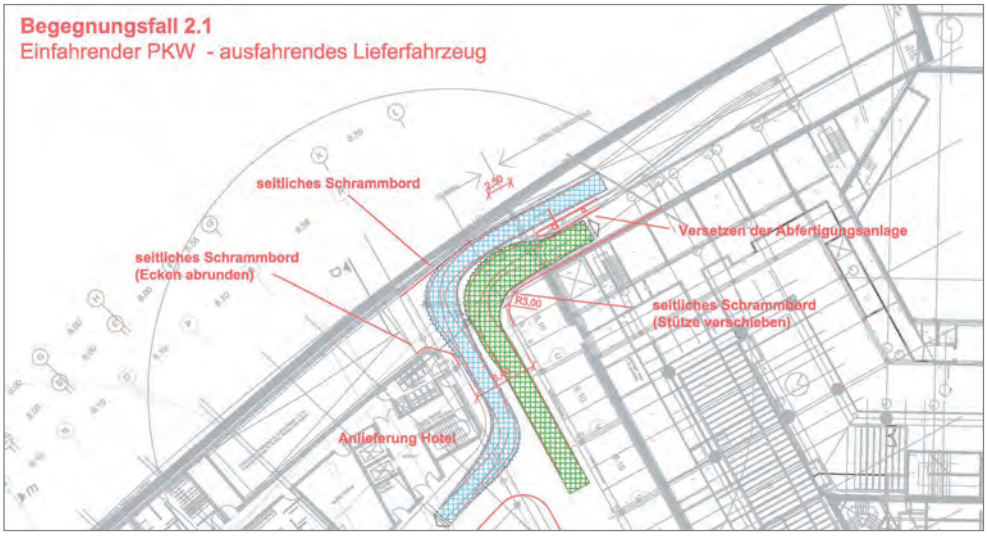
Absolute distribution of the projected traffic of a building project

PMENT ISSUES

Consulting
Analysis
Research
Planning
Traffic engineering
Project management
Construction supervision
Safety audit

Functionality assessment for parking systems

Many underground garage and parking garage designs do not meet standard regulations or are limited in use. The analysis and assessment of traffic functionality and approvability of these designs are additional consulting services offered by ARGUS. Next to driving geometry tests of entries and exits, trafficability of the lanes and the accessibility of the parking spaces are also checked with driving simulations. Documentation of the results as well as suggestions for the improvement of the functionality ensure usage quality and smooth approvability of the parking systems.



Examination of the functions of an underground garage

Consulting
Analysis
Research
Planning
Traffic engineering
Project management
Construction supervision
Safety audit

Management concepts for parking systems

Due to economic reasons, owners of private parking garages and underground garages increasingly consider making them accessible to the public for a fee during certain times of day or on weekends. ARGUS analyses and assesses the locations where such measures are economical and the effect of the additional traffic volume on the surrounding areas and thus the approvability of the project in appropriate feasibility studies.

11

COMPETENCY

Technical equipment

ARGUS has high-quality technical equipment and consistently works digitally from draft to design planning. Contemporary communication facilities allow providing digital versions of the planning results to all involved parties immediately.

EDP functionality is warranted with a "Microsoft Gold Certified Partner" as well as especially trained employees on site. Data is backed up several times daily, weekly and in medium-dated cycles with internal and external storage. Data loss of more than one working day is thus precluded. The company-wide anti-virus software protects all desktop computers, internet gateways as well as e-mail servers and file servers against security risks. The deployed firewall protects the company against attacks and provides access to required services.

Quality assurance

The quality management at ARGUS is based on the quality management standard ISO 9001. Ongoing coordination of the approach and intermediate results as well as the two-fold examination of results by project management and one of the two owners warrants high professional and formal quality. Verification of the professional suitability of the responsible persons is rendered with the occupational permit / list entry of the chamber.

The software RP-PRO from Loreg GmbH provides ARGUS with a powerful office organization and controlling instrument. With the integrated Microsoft standard software, this forms the basis for an efficient design of back-office processes, project transparency also from an economic point of view as well as project and company oriented decisions. Especially the constant observation of engineering costs delivers reliable bases for decision making for the control of project progression. This ensures not only an economic balance of projects and thus successful continued existence of the engineering office ARGUS, but also cost-effective actions to benefit the client.

LK Argus: Our subsidiaries

LK Argus GmbH is a joint venture of Lärmkontor GmbH and ARGUS Stadt- und Verkehrsplanung. The predominant goal of LK Argus GmbH is the processing of complex tasks in the action planning field for noise reduction and air pollution control.

The authorities responsible for urban development spots are faced with increasingly more complex tasks. The EU regulations for environmental noise and air pollution control more than ever require

- increasing specialisation with professional knowledge in the fields of urban development, traffic development planning and emission protection as well as
- interdisciplinary communication with an intermeshing of the respective results in one harmonious overall concept.

The corporate philosophy of LK Argus GmbH is to provide a pool of experts together with the parent companies Lärmkontor and ARGUS to put together ideally qualified project teams that perfectly match the respective tasks. LK Argus also closely cooperates with konsalt GmbH (process moderation) and Wölfel Meßsysteme - Software GmbH + Co. KG

ARGUS
STADT- UND VERKEHRSPLANUNG

Admiralitätstraße 59
20459 Hamburg
www.argus-hh.de

Telefon: +49 (40) 309 709-0
Telefax: +49 (40) 309 709-199
E-Mail: kontakt@argus-hh.de