

BUILDING CONSTRUCTION, BUILDINGS AND STRUCTURES

LOGICAL STRUCTURE OF THE EXPERT SYSTEM OF FORECASTING RESIDUAL TERMS OF THE SERVICE OF CONSTRUCTION STRUCTURES

G. D. Shmelev

Annotation. The proposed expert system for predicting the residual life building constructions includes several groups of methods to carry out with different accuracy prediction for all types of structures. The system includes the following forecasting methods: expert, parametric method "load - carrying capacity" and the method "load - deformation." Developed expert scheme allows simulate changing parameters of the same type of structures, depending on their number to the object, and take this into account in the calculations. The results obtained by different methods are tested for convergence, assessed the risk of forecast error. The developed expert system will simplify the calculations predict the residual life of building constructions.

Keywords: expert system; building construction; residual life; forecasting models; forecasting methods.

ENGINEERING SYSTEMS AND COMMUNICATIONS

RESEARCH AIR EXCHANGE PRODUCTION PREMISES WITH HOLES IN THE OVERLAPPINGS

A. V. Derepasov

Annotation. The structure of ventilation flows, the distribution of temperatures and concentrations of harmful substances in industrial premises are studied. The influence of the geometrical characteristics of the openings in the ceilings and the parameters of the flowing air on the air quality of the working area is determined. The conditions for using the scheme for organizing air exchange, allowing air to flow between floors through openings, are justified. The data obtained by the author make it possible to determine the coefficient of air exchange and the amount of air required for dilution of hazards.

Keywords: Ventilation; air exchange; temperature; harmful substances; concentration.

CITY. RECONSTRUCTION, RESTORATION AND LANDSCAPING

CONTEMPORARY ISSUES IN THE DESIGN OF SANITARY PROTECTION ZONES

T. V. Mikhaylova, I. S. Moskovkina

Annotation. In the article the analysis of use of sanitary norms and rules of sanitary protection zones and sanitary classification of enterprises, structures and other objects. Reviewed adequacy requirements and the availability of information at implementation of projects of sanitary protection zones (SPZ). It is shown that the design of the SPZ is, on the one hand, an element of territorial planning of constituent entities of the Russian Federation, on the other hand, the object of capital construction. The substantiation requirements for graphic and text content of the SPZ, the structure and composition of the data, sources, methods of combining data.

Keywords: sanitary protection zone; the hazard class of the enterprise; functional zoning; engineering; spatial planning; capital construction; design decision; the operating enterprise.

ECOLOGY AND SAFETY OF THE URBAN ENVIRONMENT

PROTECTION OF THE AIR BASIN OF THE CITY

E. V. Sazonov

Annotation. In the article application of universal methodology is grounded for reduction or complete liquidation of contamination in atmospheric air of municipal settlements.

Keywords: ecosystem; geobiocenosis; landscape; cleaning; dispersion; diffusion; absorption; ion-exchangers.

THE SPREAD OF POLLUTANTS IN THE LOWER ATMOSPHERIC LAYER IN ADVERSE WEATHER CONDITIONS

K. V. Garmonov

Annotation. The analysis of adverse meteorological conditions on the example of Voronezh region, and the influence of fog and rain on the spread of harmful substances in the atmospheric surface layer. The process of interaction of pollutants with water droplets. It is revealed that the presence of fog over the wet surface helps to cleanse the air of particles of pollutants.

Keywords: adverse weather conditions; harmful substances; fog and condensation; ambient air; ground layer of the atmosphere; dispersion system; capture efficiency.

ROAD TRANSPORT, AGRICULTURE AND CONSTRUCTION MACHINES

VARIANTS OF ARRANGEMENT OF NORMED QUANTITY OF PARKING PLACES AT DESIGNING BY A CORE OF BUILDING

M. S. Kononova

Annotation. On an example of microregion with inhabited nine storey buildings matching three variants of arrangement of places for a parking are surveyed. The impossibility of arrangement of a normed quantity of places for a parking is detected in case of application of a unclosed terrestrial parking. The further comparison of reduced expenditures for underground parking and multilevel parkings attached to buildings has shown that the variant of the attached multilevel parkings is economically expedient.

Keywords: automobile parkings; settlement quantity of car places; underground parkings; multilevel parking.

ECONOMICS AND ORGANIZATION OF CONSTRUCTION

METHODICAL APPROACH TO ASSESSING THE QUALITY OF PUBLIC SERVICES

N. A. Anisimova, M. A. Shibaeva, E. Yu. Okolelova

Annotation. The article examines the role of the assessment of profitability and profitability in the housing market, as well as existing methods for determining the quality of housing and communal services. The evaluation of the quality of services one of the management companies of the city of Voronezh on the real data. With this purpose, and analyzed all public complaints received in the period, divide them by key themes of complaints and the number will identify the dynamics. The proposed adjustment of the management company on the basis of analysis of complaints from residents for improving the efficiency of services provided.

Keywords: utilities; management companies; quality of services; tenants; complaints; requests; level of satisfaction.