

Abstract

Background. In recent decades, the country's birth rate decrease, and as a result - many kindergartens closed given for offices, and more. At the same time, population growth disability is a major health and social problems. Also in the present conditions of construction, including the manufacture of monolithic concrete structures, increasingly there is a need quality control of concrete work. Advanced in this direction is the use of non-destructive control methods for determining the strength characteristics of concrete at the stage of making any concrete structure without damage and monitor their changes during operation.

Accepted engineering major decisions of the thesis:

Adopted major decisions of Engineering thesis: The building, subject to reconstruction is a public kindergarten building. The project provides for the reconstruction of changes in the functional purpose of the building under the Health and Rehabilitation Center. Engineering of the project consists of three sections:

- In the architectural and construction section gives a brief description of the reconstruction of kindergarten in health and rehabilitation center center;
- In cash and constructive chapter conducted a verification calculation-core slab design and calculation of spatial coverage;
- Under technology and organization building production schedule developed works on reconstruction and build plan.

Also developed estimates for internal and external work and a result of the comparison of selection options meridian arches of metal and wood on a more economical option for dome-hip design.

Objective. The purpose of experimental and theoretical studies is to compare the data evaluation measurement accuracy vat strength concrete prototypes and building individual calibration for estimating the strength of concrete structures different NDT devices.

Tasks:

- Develop a method and a program of experimental studies;

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Зм.	Кільк	Арк.	№ док	Підпис	Дата		

- To test prototypes of non-destructive methods to control and hydraulic press;
- Perform a statistical analysis of the data;
- Analyze the data obtained by non-destructive and destructive methods of control;
- Build hradiyuvalnu zalezhnis and assess its credibility with the actual strength of concrete obtained on a hydraulic press.

Field of application. The examination, diagnosis, repair and reconstruction of buildings.

The object of study. Cuba and the concrete slab.

Purpose of the study. The strength of concrete by non-destructive methods of control.

Methods. Analysis of the literature; analysis of experimental studies, analysis of theoretical studies a specially developed technique.

Scientific news of the research:

- Play developed and conducted experimental research of concrete strength by non-destructive and destructive methods of control;
- New data of experimental research strength concretes of different classes of non-destructive methods of control;
- Analysis of the data on research and built hradiyuvalnu dependency to assess its credibility among non-destructive and destructive methods of control concrete strength.

Relationship with other works. This work was carried out in conjunction with experimental and theoretical studies of nondestructive testing of concrete strength by students of MBM-61 V.I Mukan, A.V Poshva, T.R Pavlik, V.V Vasylyna. and Y.A Vasylyna.

Tags: strength, control, concrete momentum.

The scope and structure of the work. Thesis consists of an introduction, 8 chapters, conclusions and list of sources of 68 items. The work described in 170 pages, including 120 pages of main text, page 7 list of sources used, 29 tables and 68 figures.

Publications. The results were published in the book of abstracts: Current problems of modern technology / D.V.Strilchuk, Y.A Vasylyna, V.V Vasylyna // III

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Зм.	Кільк	Арк.	№ док	Підпис	Дата		

International Scientific Conference of Young Scientists and students (Ternopil, 19-20 November 2014) / Ministry of Education and Science of Ukraine, Tern. NA. Sc. University of them. Pul'uj I. [and others]. - Ternopil: TNTU, 2014. - p. 67.

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Зм.	Кільк	Арк.	№ док	Підпис	Дата		