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目　　次

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SYNOPSES

NIELSEN SYSTEM BRIDGE

BY S. KOJIMA AND M. NARUOKA (Page 7)

The present paper briefly describes the Nielsen system bridge which has recently began to drow the people's attention for the first time in Japan and on this occasion, introduces the main point of solution on the basis of deformation method as well as the programming for electronic computer, NAEAC-2203.

CALCULATION OF CROSS SECTION OF COMPOSITE GIRDER

BY S. MATSUNO (Page 13)

The present paper deals with the concrete creep in prestressed composite girder, dry shrikage, and especially with the creep of slag concrete with the stress calculation as the main feature.

A FIELD EXPERIMENT ON A SPECIAL PILE WITH SIDE SHOES

BY K. HAYASHI (Page 53)

Piles used at present have various forms, each bearing its own characteristics. As shown in Photo. 1, the pile with side shoes used in this experiment was of reinforced concrete with a part of its side wall made of metal which could be opened and closed freely. This permitted the side shoes to be closed while the pile was being driven into the soil and prevented the increase of the resistance to penetration.

When the desired depth was reached the side shoes would open and the bearing capacity increase.

Field experiment on this type of pile was performed five times.

This pile was used as a part of the foundation pile in the construction work of Niho Bridge in Hiroshima which is now under construction (265 piles in the site for the Toyo Kogyo Ltd.) In this paper the author compares the results of the bearing capacity of the reinforced concrete pile having side shoes with that of the ordinary ones.

EXPERIMENT ON INVERTED TRAPEZOIDAL COMPOSITE BOX SHAPE GIRDER BRIDGE

BY Y. HOSOKAWA, T. UEHARA, T. TATEBE, T. SHIGETO AND S. NEGISHI (Page 24)

When Mukogawara Bridge in Tochigi prefecture was designed a new type called inverted trapezoidal composite girder bridge which has few actural examples in Japan as well as oversea countries was adopted. When this new type of bridge was decided to be adopted an experiment on a large size model was conducted, and the present paper describes the result of experimented checking of the design theory underlying the design.

IMPROVEMENT OF STIPULATION OF CIVIL ENGINEERING WORK CONTRACT

BY K. WATANABE (Page 41)

The present paper describes the ground on which the spipulation of standard contract is to be improved and its method and this offers certain data for the future.

CUTTING OF CENTRIFUGAL FORCE P C PILE

BY K. AYA AND S. NAKADA (Page 52)

Experiment of cutting PC pile manufactured by the post-tension method is described in the present paper.

A STUDY CONCERNED WITH THE ESTIMATION OF THE HIGH WATER-LEVEL OF RIVER BASED ON THE CO-AXIAL RELATION DIAGRAM METHOD

BY N. TAKASE (Page 57)

The natural phenomenon of run-off from rainfall is very complex, and the estimation of run-off from rainfall, so called flood analysis, is the most important part in the hydrology. The flood analysis is classified into three categories such as unit graph method, storage method and hydraulic method. Apart from these methods, however, the analysis of correlation between the rainfall and the high water-level in rivers is treated in this paper.

The author expects that this method using the co-axial relation diagram will much contribute to a quick estimation of water-level caused by rainfall as in cases of the flood forecasting, the warning of emergency of flood protection works and others. This method has a very high accuracy in many correlation analysis, and it is much expected to be used in various fields.