Vilnius Gediminas Technical University
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DEPARTMENT OF GEOTECHNICAL ENGINEERING

Construction Engineering

Desing of foundations for autoservice center building in Vaduvos street 3, Vilnius

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Thesis language - Lithuanian

Annotacion

In my final work, which was written by VGTU geotechnical's department's task, was projected design of foundations for autoservise center building in Vaduvos street 3, Vilnius. Durability of building is 50 years. The class of building reliability is RC2. Building is for commercial purpose, whose shell is made from monolithic ferroconcrete and roofs bearing constructions are made from steel. Parking is under the building and its shell is made from monolithic ferroconcrete. Outside walls of parking are made from monolithic ferroconcrete too. Parkings dimensions are too big, due to this fact the building is grouped into temperature – deformation hem (A, B, C, D parts). Parkings outside walls are connected with ceiling by hinge. Bearing constructions of roofs are beams and girders made from steel. In part "A" is intended plane roof which is made from steel girders. Incline of roof is formed by polyester. Outside walls are protected from humidity by sticked hydroizolation. Inside walls are intented from light weight constructions. "A" parts construction scheme is spatial monolithic ferroconcrete with steel girders. Buildings spatial rigidity is secured by solid pillar, foundation and ceiling connections. Moreover steel girders are connected tightly with profile flooring. In structural part is designed monolithic ferroconcrete shallow foundations. In geotechnical part are designed 3 types of foundations. The first type – shallow foundation, the second – deep foundation, the third – pile foundations. In economic part is made a comparison of foundation types. Also comparison was made in economical part. Graphic part is made of 8 graphics.

Keywords: Monolitinio gelžbetonio pamatai, seklieji pamatai, gilieji pamatai, poliniai pamatai, ekonominis palyginimas, santykiniai nuosėdžiai, pamato laikomoji galia, pamato nuosėdžiai, technologija, geotechninių tyrinėjimų medžiaga, brėžiniai, požeminė automobilių stovėjimo aikštelė.