Development of Railway Roadbed Improvement Method for Existing Lines by Reusing Deteriorated Ballast

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Regarding ballasted tracks on soil roadbeds, it is necessary to perform the roadbed improvement at locations where the ballast include a high mix ratio of fine particles and the bearing capacities of roadbeds are insufficient. In the roadbed improvement of such locations, the deteriorated ballast is discarded as surplus soils in most cases. Then, we have developed a new method able to be executed simply and in short working time by reusing the deteriorated ballast mixed with grout. In this study, we confirmed this validity of the method by full scale model tests. In addition, we confirmed also that this method is applicable to the existing lines by the field test.