微型钢管群桩在基坑工程事故处理中的应用

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近几年来,随着城市建设的发展,地下建筑工程数量和规模迅速增加,深基坑开挖与 支护技术也得到了发展。由于基坑工程技术是一个综合性的岩土工程难题,受诸多因素的影 响,基坑工程事故时有发生。因此,如何对已发生基坑边坡失稳、垮塌、滑动破坏等事故的加<mark>▶加入我的书架</mark> 固处理是每个从事基坑工程设计、施工、监理以及管理人员面临解决的主要问题。实践证明, 微型钢管群桩对基坑工程事故的加固处理是一种有效的方法,其具有适应性强、见效快、安全 度高、节约材料、施工方便、施工时间短以及桩顶位移小等特点。通过分析微型钢管群桩的特 点,结合应用微型钢管群桩成功处理基坑工程事故的实例,总结出在加固处理设计与施工中的 主要问题,提出类似基坑工程事故处理对策,对于类似基坑工程事故的处理具有一定的指导和 帮助作用。

关键词 岩土工程;基坑工程事故;处理加固;微型钢管群桩

分类号

APPLICATION OF MICRO STEEL PIPE PILES TO DEAL WITH PIT DESTRUCTION

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Abstract

Recently, the quantity and scale of underground building increase rapidly with the development of city construction, which triggers the development of technique of deep excavation and support. Because pit engineering is a complex geotechnical engineering and affected by many factors, support failure often occurs. Therefore, how to reinforce pit slope after its loss of stability, collapse and slide is a key problem which designer, builder, supervisor and manager who are engaged in pit engineering have to face. It is proved by practice that micro steel pipe piles used to reinforce failure slope is effective. This method is adaptable, safe and convenient with immediate effect and small displacement on top of piles. The principal problems of designing and making of micro steel pipe piles and the measures to solve them are put forward by analyzing the attribute of this method through a case, in which micro steel pipe piles are used to reinforce failed slope. The technique will be helpful for similar engineering.

Key words geotechnical engineering; pit failure; reinforce; micro steel pipe piles

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