

Verification of a Collapse Prevention Method using a H Steel Embedded in a PC Power Pole

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This study suggests a collapse prevention method of the existing prestressed concrete power pole by inserting a H steel into it. In this paper, the effectiveness of this method was studied analytically and experimentally. It has been found from the analytical results that the power poles are destroyed at their bottoms under strong earthquakes regardless of whether the proposed method is applied or not. However, it has been also confirmed that the H steel prevents the total collapse of the power pole under successive earthquakes. This shows that this method functions effectively. On the other hand, the experimental results show that this method has a possibility of having an effect on reducing the displacement of the power poles.