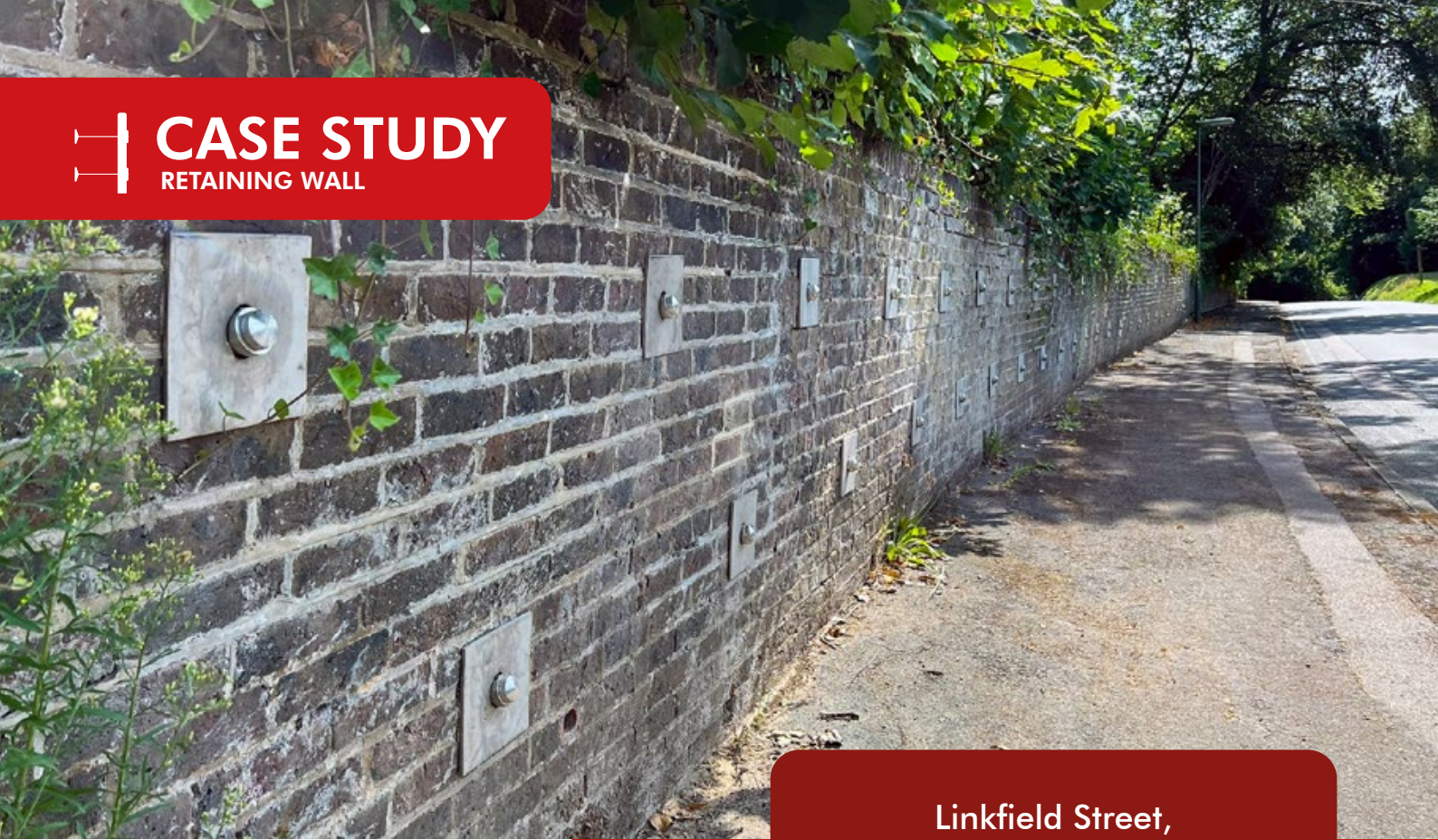




CASE STUDY

RETAINING WALL



Linkfield Street,
Redhill, Surrey - UK

OVERVIEW

This 1.6m high masonry retaining wall had become damaged due to long-term lateral soil displacement, resulting in bulging and overturning throughout its length. The wall was situated at the base of sloping terrain with an incline between 35° and 50°, reaching a maximum height of 4.5m above the top of the wall. Large trees were also seen to be growing in close proximity to the structure. The

total linear extent spanned 68m with approximately a 240mm thickness. The condition of the wall threatened the stability of properties at the top of the retained slope and pedestrians and road users near the structure. A remedial solution was sought using Platipus Percussion Driven Earth Anchors (PDEA®) to prevent further deterioration and ensure the future stability of the structure.



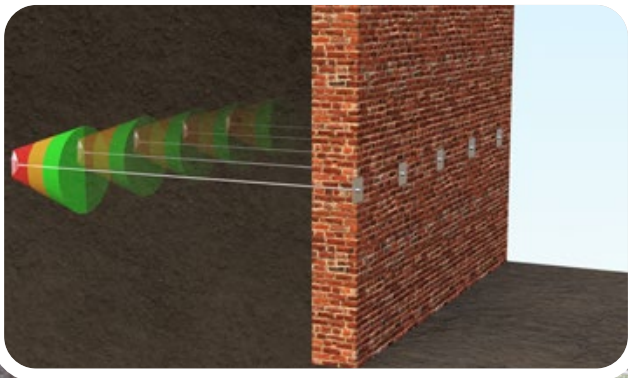
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SOLUTION

Core holes were drilled through the wall in a combination of perpendicular and a 20° declination according to the final anchor scheme, allowing two rows of Platipus Stealth Anchors to be driven to a 4m depth using a tracked excavator. Following which, they were loadlocked to a working load of 23kN. The ground anchors along the main section of wall used wire tendon and wedge grips. A 7m section of wall beneath an existing flight of stairs required demolition and reconstruction due to its poor

condition. Anchors along this section used threaded bar to temporarily support the slope, following which the threaded bar was extended through the new wall. This remediation solution will provide a 60-year design life.



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