

Clarence Place, Gravesend.

Schedule of works.

Repairs to Stonework and Render.

Carry out a tap test of existing render. Identify areas of loose, de-bonded render.

A/ R. Cut back loose, de-bonded render to a sound substrate. Re-render using lime based mortar. Not exceeding 30 mm thick.

A R. Remove damaged, defective copings. Supply and fix new stone copings, bed and point up using lime mortar.

A R. Remove plain damaged, defective apex stone. Supply and fix new stone.

A R. Cut back loose, defective stone string course. Drill in stainless steel reinforcement. Reform profile using lime based mortar.

A R. Cut back loose and friable stonework to window voussoirs. Drill in stainless steel reinforcement as required and reform profile using lime mortar.

Recommend structural engineer consultation to determine structural integrity of arched windows prior to repair to confirm repair.

A R. Cut back loose, de-bonded mortar repairs from quoins. Reform profiles using lime based mortar.

A R. Cut back loose, de-bonded column base mortar repairs. Drill in stainless steel reinforcement as required. Reform profiles using lime based mortar.

Recommend consideration given to alternative repair using natural stone indents to provide long-term repair solution at ground level in a vulnerable location.

A R. Defrass loose, friable Ragstone.

A R. Cut out Ragstone eroded back beyond the wall line. Supply and fix new coursed pitched faced Ragstone.

Recommendations

Carry out a tap test survey of existing render applied over historic Ragstone. Remove loose, de-bonded render and re-render it as necessary.

Undertake further investigation and structural engineer consultation of exposed fractures that have damaged substrates following removal of render.

Extensive use of incompatible mortars to repair stonework has caused further deterioration and depletion of masonry, leading to failure and loss of the repair. Where mortar repairs are carried out, it should be with a mortar that is compatible with the substrate. Substrates first need to be sound and not in an ongoing deteriorating condition as any subsequent repair will fail.

Carefully remove failed mortar repairs, de-frass loose, friable stonework, drill in stainless steel reinforcement and re-form profiles using compatible lime mortars. Mortar repairs must not bridge joints which are to be raked out and repointed using lime mortar.

Consideration given to use of natural stone indents to provide a long-term repair solution.

The depletion and failure of stonework may have been contributed to by painting with a non-breathable paint, which has restricted the natural migration of moisture. It is recommended that future repainting is carried out using a microporous paint system such as Deluxe Weather Shield of Keim. The application of these systems may first require stripping back existing paint coats.

De-vegetate all rooted growth ensuring root systems are neutralised to prevent regrowth and potential damage and displacement of masonry.

The development of an effective Planned Preventative Maintenance strategy including a 5-10 year cycle of surveys is recommended following completion of the masonry works to maintain the fabric and long-term integrity of external masonry and helping to reduce the frequency and cost of future possible repair.