HADDONSTONE

BALUSTRADE ASSEMBLY RECOMMENDATIONS

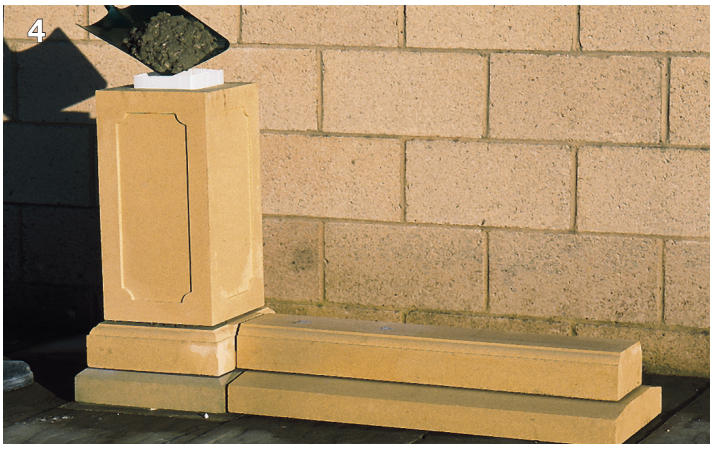
To be read in conjunction with GAR1/TS, B50/TS, appropriate balustrade Tech Sheets and Pointing Recommendations. The balustrade is supplied in component form: ie piers (cap, shaft, base and optional pier undercoping), rail, baluster, plinth and optional undercoping.

All rails, plinths and undercopings are supplied in standard lengths, cutting and drilling being undertaken by the installation contractor. An optional Balustrade Installation Pack X950 (UK only) is available on request. Unless otherwise stated, all materials other than the stonework are to be supplied by others. Consult a qualified builder or installer to ensure all relevant Building Regulations/Codes are adhered to prior to installation of balustrade.

The balustrade should be erected on a suitable foundation. The foundation, concrete and steel reinforcement to be designed by others to suit loading and ground conditions. Shown is a pier base, pier undercoping, plinth and an undercoping bedded on 1:1:6 cement/lime/sand mortar. All joints would normally be 6mm (¼") with the mortar slightly recessed from the surface of the stonework to allow for pointing after the balustrade is erected.

Mark the pier base centrally and drill a 20mm (¾") hole through the pier base and pier undercoping and into the foundation. Similarly, the undercoping and plinth should be drilled to a diameter of 10mm (⅜") and dowelled twice per stone into the foundation. Ensure that holes are positioned so that they will eventually be hidden by balusters.

Resin fix a 10mm (⅜") stainless steel dowel positioned to extend 300mm (12") above the pier base. The pier shaft can then be bedded, using the method previously described.



It is important that polystyrene/Styrofoam (or similar) is used to act as an isolating/expansion medium between the stone and the infill concrete. This is inserted into the core of the pier shaft prior to filling with concrete. Care should be taken to ensure sufficient overlap at the vertical joint with continuous contact between the isolating/expansion medium and the inner stonework core. The pier shaft is then infilled with concrete and hand compacted. The coarse aggregate of the concrete being rounded gravel of maximum 10mm (⅜").

The isolating/expansion material is trimmed and the concrete trowelled so that both are flush with the top of the shaft. Insert 10mm (⅜") stainless steel dowel 100mm (4") long minimum into top of concrete, to protrude by 40mm (1½"). Only proceed once concrete has reached its initial set.

Drill a 20mm (¾") hole in underside of pier cap and drill a 16mm (⅝") hole in the side of the pier cap at the rail run-in ready for the rail installation. Resin dowel and bed the pier cap on a continuous mortar bed on the pier shaft.

Mark and drill plinth to create 16mm (⅝") holes to allow for tolerance ready for balusters at desired spacing in accordance with Tech Sheet B70

Bed the balusters on plinth with the dowels resined ensuring any seam marks run lengthways along the plinth.

Mark and drill the underside of the rail to create 16mm (⅝") holes ready for balusters at desired spacing ~ enlarge holes if necessary to allow for installation tolerance. Also drill and resin 6mm (¼") dowels to both ends of the rail. Final assembly of this section can now take place with the rail being bedded on a mortar bed.

The finished balustrade is then ready for pointing. For details refer to the Pointing Recommendations sheet.

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