

1. Background

From time to time when a building consent is issued, a condition is imposed that a certain type of masonry is to be used and that on completion the design engineer shall certify that the masonry work has been observed.

The type primarily depends upon what the reinforced concrete masonry is being used for and the level of construction supervision to be provided. Note: types of masonry were previously referred to as types of masonry.

2. Masonry types

There are three types of masonry, i.e. type A, B and C.

Type A

The most stringent supervision requirements, normally only used for major masonry structures, such as multi-storey offices, apartments or hotels.

In addition to periodic inspections, a supervisor is required on-the-job full time or to be present at critical stages of the work. It is recommended that the supervisor be a qualified engineer, or a clerk of works or a registered mason capable of checking reinforcing, preparation of laying surfaces, quality of mortar mix, workmanship, cleanliness and grout pours.

Type B

The type envisaged for typical one or two storey structures or masonry retaining walls exceeding 1.5m supporting a surcharge. An engineer experienced in this type of construction shall design the intended work.

The extent and timing of inspections should be at the designers discretion and sufficient to determine quality of workmanship, the placement of the reinforcing cleanliness and approve grouting procedures.

Type C

The type intended to be applicable to buildings or structures that may not require specific design. Where the design engineer permits, masonry may be constructed without observations; such masonry shall be design as type C. Building Inspectors can inspect this type of work.

Other types

Non-specific masonry designs constructed to NZS 4229:1999 can be inspected and certified by Building Inspectors. An example could be retaining walls less than 1.5m not supporting loads additional to the load of the ground, residential and small buildings of limited area.

3. References

NZS 4229:1999 Concrete masonry buildings not requiring specific engineering design