

1.5. REGULARITY REQUIREMENTS

Regularity requirements of building structural systems are indirectly specified through the definition of irregular buildings.

1.5.1. Definition of Irregular Buildings

Regarding the definition of irregular buildings, types of irregularities in plan and in elevation are given in **Table 1.3** and relevant conditions are given in **1.5.2**.

1.5.2. Conditions for Irregular Buildings

Conditions related to irregularities defined in **Table 1.3** are given below:

1.5.2.1 – Irregularity types **A1** and **B2** govern the selection of the method of seismic analysis as specified in **2.2.2.1**.

1.5.2.2 – In buildings with irregularity types **A2** and **A3**, it shall be verified by calculation that the floor systems are capable of safe transfer of seismic loads between vertical structural elements.

1.5.2.3 – In buildings with irregularity type **B1**, in the range $0.60 \leq (\eta_{ci})_{min} < 0.80$, *Behaviour Factor*, given in **Chapter 3** or **Chapter 4**, as appropriate, shall be multiplied by 1.25 $(\eta_{ci})_{min}$ which shall be applicable to the entire building in both earthquake directions. In no case, however, $\eta_{ci} < 0.60$ shall be permitted. Otherwise strength and stiffness of the weak storey shall be increased and the seismic analysis shall be repeated.

1.5.2.4 – Conditions related to buildings with irregularities of type **B3** are given below:

(a) With the exception of paragraph **(b)** below, all internal force components induced by seismic loads shall be increased by 50% for beams and columns supporting discontinuous vertical elements.

(b) Structural walls shall in no case be permitted in their own plane to rest on the beam span or on slabs at any storey of the building.