C1 Example. Concentrated load under a bearing

Precast concrete floor beams are to be supported on a 140 mm thick concrete masonry wall as shown. The wall is 2.9 m high and is to be constructed from Group 1 concrete masonry units 440 mm long by 215 mm high with a width of 140 mm with a normalised block strength \( f_b \) 6.6 N/mm\(^2\). The attestation of conformity is Category I and Class 2 execution control is to be employed. A general purpose M4 mortar is to be used. The floor beams are spaced at 0.75m centres and the bearing of the first beam is 150 mm from the end of the wall.

Each beam transfers to the wall a dead load of 5.5 KN and a live load of 4 KN.

Check the concentrated load under the second floor beam from the end of the wall and the beam closest to the end of the wall.