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 0.75 m 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.