JULY 13 1970

GREATER LONDON COUNCIL

Architect: Sir Hubert Bennett, FRIBA, FSIA

DEPARTMENT OF ARCHITECTURE AND CIVIC DESIGN
The County Hall, London, SE1
01-633 6000 ext 8214 or ext 515 your ref my ref AR/A

9 July 1970

Letter for publication

Dear Sir,

G.L.C. Strengthening Programme

I read with concern your article in 3 July's issue reporting on Mr. Sam Webb's comments to the recent meeting of the Institution of Structural Engineers on Building Regulations.

The G.L.C., when deciding on the type of 'strengthening' to be used on these blocks, naturally had the effects of fire in mind. If the type of block had required the use of beams of columns in all probability they would have been encased, as this type of member, when under load, is subject to deformation or buckling under the action of heat. If prestressing cables had been used they would have been protected from fire and from deterioration. However, it was more appropriate, with the type of block involved, to use steel angles bolted to the wall to floor (or ceiling) junctions. The object of the angles was to retain the wall in position if a pressure of 2½ p.s.i. was applied to the whole of the wall area. In all other situations the angles are completely unloaded. The effects of a domestic fire on such an unstressed steel angle are unlikely to cause much damage or distortion. In any case if fire occurred without explosion the angles, if damaged, could be replaced. If an explosion occurred, in spite of there now being no gas in these buildings, followed by fire the angles would have done their job before the fire started.

The chances of an explosion occurring after a fire, at a point in time when the heat had had time to lower the yield point of the steel to such an extent that it could no longer take sufficient tension (there is a factor of safety of four), is so remote that the Council decided that fire protection of the steel angles was an unnecessary expense.

I had immediately written to the Institution with information to the above effect following Mr. Webb's contribution to the meeting.

Yours faithfully,

Architect.

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