

**KEY**

- New wall to achieve 60 minute fire rating.
- Existing wall to achieve 60 minute fire rating (suitability of wall to be confirmed on site by main contractor with PureGym)
- Protected areas: walls, floors, ceilings and doors to achieve 30 minute fire resistant construction.
- Area of special fire risk: walls / floors / ceilings and doors to achieve 60 minute resistant construction.
- Travel distance, direction of travel escape in 2 directions angle.
- Fire escape route.
- Occupancy level within area.
- FD60 - Fire Door 60min Resistance.

**Escape Route Widths**

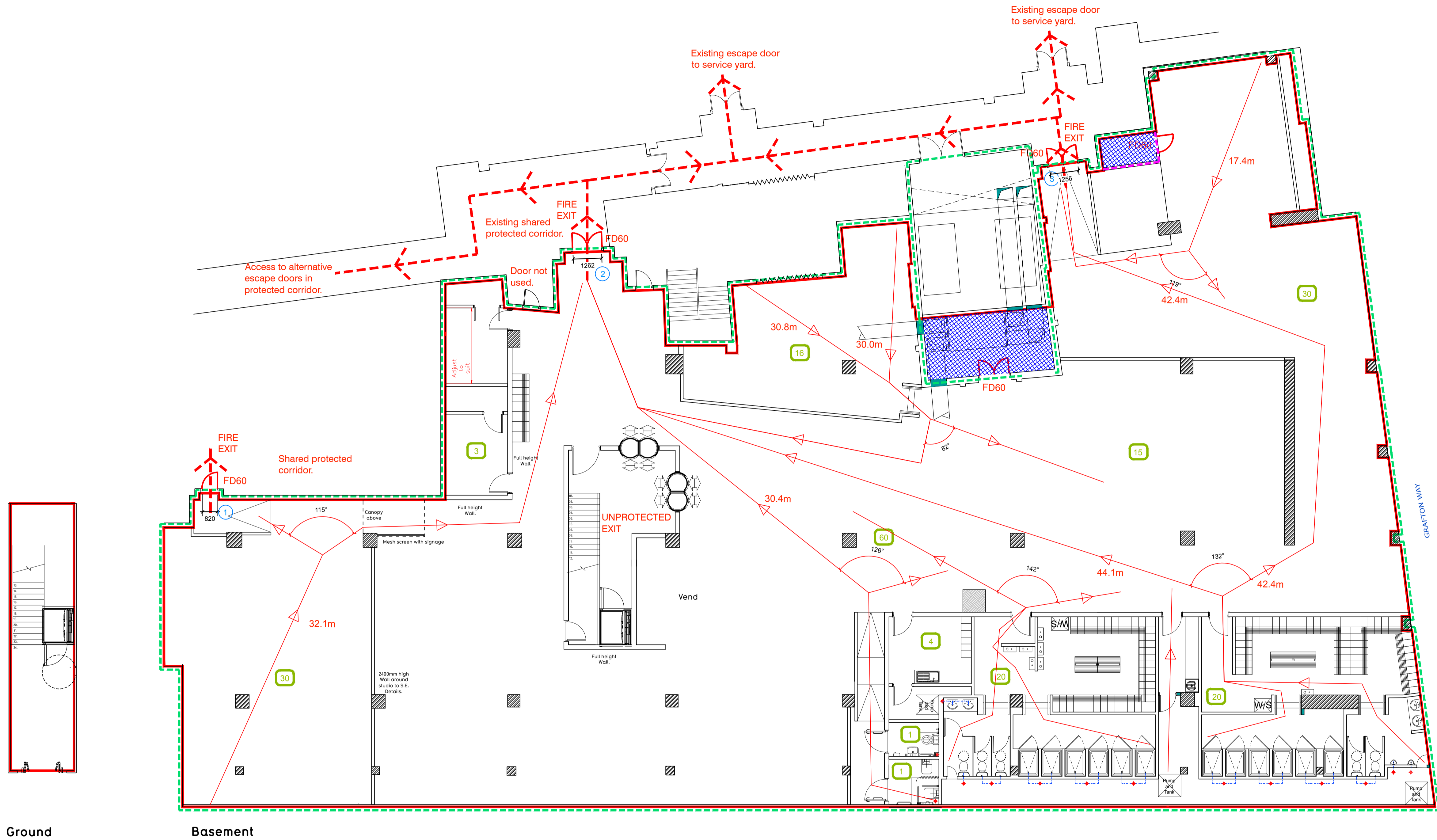
In line with Sections 3.21 & 3.22 of 'Approved Document Part B, Volume 2 - buildings other than dwellings' - the adjacent calculations provide justification for the clear opening widths for escape from each floor level/room in accordance with Table 4 & Appendix C.

**Basement Floor**

Exit 1 Clear Opening Width = 820mm (assume as per 750mm allow 60 persons to escape)  
 Exit 2 Clear Opening Width = 1022mm (largest opening to be accounted)  
 Exit 3 Clear Opening Width = 1256mm (assume as per 1050mm allows 200 persons to escape plus an extra person for every 5mm, so an extra 206mm = 41 person, total 241 persons to escape)  
 Total Aggregate Width for Floor (Less Largest Opening Width of 1025mm from Exit 2) = 820mm (60) + 1256mm (241)  
 Basement Floor Total Estimated Occupancy Capacity = 321 Persons  
 Exit 1 and 3 would allow a max. No. of 321 persons to escape, which is larger than the total estimated occupancy capacity of 200 Persons and is therefore thought to meet with the Approved Document Part B.

**Smoke Ventilation**

Requirement for natural ventilation is one fourteenth of the floor area so:  
 1020m<sup>2</sup> (floor area not including changing rooms) / 40 = 25.5m<sup>2</sup> remaining ventilation is:  
 23.3m (length of pavement light upto changing rooms) x 0.9 (width of pavement light) = 26.37m<sup>2</sup>



Ground

Basement

Rev	Date	Description	Drawn/Checked
PROJECT TITLE: LBF - Tottenham Court Road London			
DRAWN / CHECKED: EK		DATE: 25.07.18	SCALE: 1:100@A1 / 1:200@A3
DRAWING PURPOSE: Construction		JOB No: IA-LBF-008	DRAWING No: 003-FEP
Pure Gym Ltd Town Centre House The Merion Centre Leeds LS2 8LY e: architecture@puregym.com t: 01132182674 w: www.puregym.com			