



JONATHAN PARK ENGINEER		14/10/2016	Ref 1417
Project: THE GRIFFIN CONVERSION	Title: FACADE WALL RETENTION		1

EXISTING FAÇADE WALL

The existing street façade brickwork wall of The Griffin is 3 storeys high above ground and built over a single storey basement foundation.

The façade wall is 570mm (2 1/2 bricks) thick for the 1st storey and then 460mm (2 bricks) up to existing roof level. This is tied into the 1st floor by 4 lines steelwork beams running from the internal structure and the delivery entry cross wall.

The Basement is extremely solidly constructed of heavy 3 brick thick walls forming an arrangement of square room areas arranged to support all the walls of the ground floor and upper storeys. There is a main wall under the front façade which is part of an additional basement structure with cross walls extending under the pavement above.

PROPOSED STRUCTURE OF NEW 5 FLOOR CONVERSION

The new rear building will be constructed as a lightweight rigid grid structure of steel columns and connecting beam. The front row of 6 steel columns starting from the basement level will be structurally tied into the rear of the existing front façade wall to its full height. They will then continue to the new roof level as part of the overall structure for the new upper floor extension and façade.

DEMOLITION PROCEDURE

Prior to the demolition and removal of the upper floors the new front row of steelwork columns (as above) will be constructed and installed from basement level to 1st floor level and structurally tied into the existing basement and front walls.

In addition, the existing 1st floor (tied into the façade wall as above) will be reinforced and retained as part of the new building when completed. The front 3 storey façade wall will then be structurally supported restrained on both faces by structural scaffolding built over the pavement.

The full demolition of the internal floors and rear walls will then be carefully carried out. When this is complete the grid of the new steelwork columns will be installed above the retained and reinforced existing 1st floor, being connected to the grid of existing ground floor supports and columns together with the newly installed lower front wall columns.

CONVERSION STRUCTURE

Following the demolition, the steelwork structure will be completed extending the building up to the 4th floor & roof and ensuring full stability of the existing and retained front wall façade.

The structural scaffolding can then be modified and removed as necessary for the continuing construction of the new upper floors façade.