

Method Statement

BBK Toddler Lab – 32 Torrington Square

Project	BBK Toddler Lab	Date	24/5/2018
Job No	8541	Number	8build/MS/001 Revision A

Method Statement For The Strengthening Works To The Existing Floors And Walls



INTRODUCTION

This method statement has been prepared based on the information supplied by the design team and gives an outlining for the sequencing of works associated with the strengthening of the existing timber floor.

The method statement clearly identifies for all concerned parties the manner in which the work will be carried out. Actual task Method Statements and supporting information will be produced by the relevant Trade Contractors based on this methodology and will be required to be submitted to 8build prior to works being undertaken.

General Construction Sequence

Overview

This section should be read in conjunction with Webb Yates drawings as listed at the end of this document. Methods of working are identified within the following text though this may be subject to modification as the scheme evolves. The programme has been developed so as to give continuity to trades thus aiding efficiency of the operations.

The work has been divided into a number of phases which are as follows:

- *Phase 1 – Initial survey once existing timber floor removed*
- *Phase 2 – Padstones*
- *Phase 3 – Installation of steel PFC*
- *Phase 4 – Install additional timber joists, noggins and ties*
- *Phase 5 – Making Good the Area Adjacent to the Stone Hearths*
- *Phase 6 – Tie Front & Rear Walls to Party Walls*

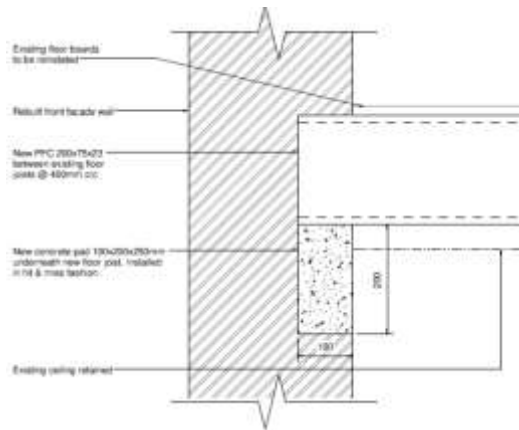
1.1 Phase 1 – Initial Survey & Lifting of Floor Boards

- Once the existing services have been isolated the initial soft strip works will be carried out. This will then enable the existing timber floor boards to be lifted in order that a survey of the existing structure can be carried out. From this survey we will then be able to establish whether any additional strengthening works to the existing structure will be required.
- Where the timber floorboards have to be taken up to carry out works beneath they will be photographed first, numbered with chalk and carefully stacked ready for relaying.
- Where timber floorboards have been patched in the past and those patches are considered to be of sub-standard workmanship, then those areas will be noted and then may be removed and patched in with timber to match the existing.
- In order to remove some of the existing floor boards it may be necessary to remove some of the existing skirtings. These will be carefully removed, numbered and stored for reinstatement when all works beneath the floors have been completed.
- The survey beneath the floors will be carried out working through the building. This will ensure that only the floor boards in the area that is being surveyed are up, thus preventing any health and safety issues.
- On the completion of the survey to each area the existing timber floor boards will be temporarily reinstated.

- Once all areas have been surveyed a report will be issued identifying any additional strengthening works that may be required.
- During this phase of work the location and direction of the existing timber floor joists and existing service holes through the timbers will be noted.

1.2 Phase 2 - Padstones

- As the location of the existing timber joists has been identified in phase 1 it will help with the setting out of the new PFC steel beams and associated concrete padstones.
- We are aware of the architectural importance of maintaining / restoring the intricate cornices whilst the strengthening works are carried out. In the areas where there are existing cornices located we will need to take moulds of them prior to the structural works commencing, in order that the plaster mouldings can be reproduced to match the original work done. Works to ceilings and cornices are covered within a separate method statement.
- The work will be carried out working from the 1st floor to the 3rd floor. This will ensure, as mentioned above, that only the floor boards in the area that is being worked in are up, thus preventing any health and safety issues.
- The existing timber floor boards will be removed thus allowing access to the area where the new steel PFC and padstone will be installed.
- The floor boards will be stored in an adjoining room whilst these works are carried out, and on completion of the work the boards will be temporarily reinstated as they will need to be lifted again later in the programme for the installation of the M&E services. During the initial survey work any damaged floor boards will be noted and replaced as necessary.
- An ally tower will be set up as required on the floor below where the new PFC steel beams will be installed. There will also be the need to temporary back prop the floor that is being worked upon, due to the construction load on the floor.
- The padstones will be set out between the existing joists and datums used to level them.
- Once the padstones have been set out a pocket will be formed in the existing brickwork using a small electric breaker.
- Care must be taken when cutting out the existing brickwork to the depth of the padstones within the party wall to 31 Torrington Square. The chimney breast within 31 TS will be sealed prior to works commencing to ensure that soot and debris does not enter the rooms. This protection will be removed on the completion of the works.
- The padstones will be precast and brought to site prior to commencement of the works.
- Due to the close proximity of the padstones to each other they will need to be installed to an agreed sequence, similar to underpinning, so as to ensure that the structural integrity of the walls are maintained.



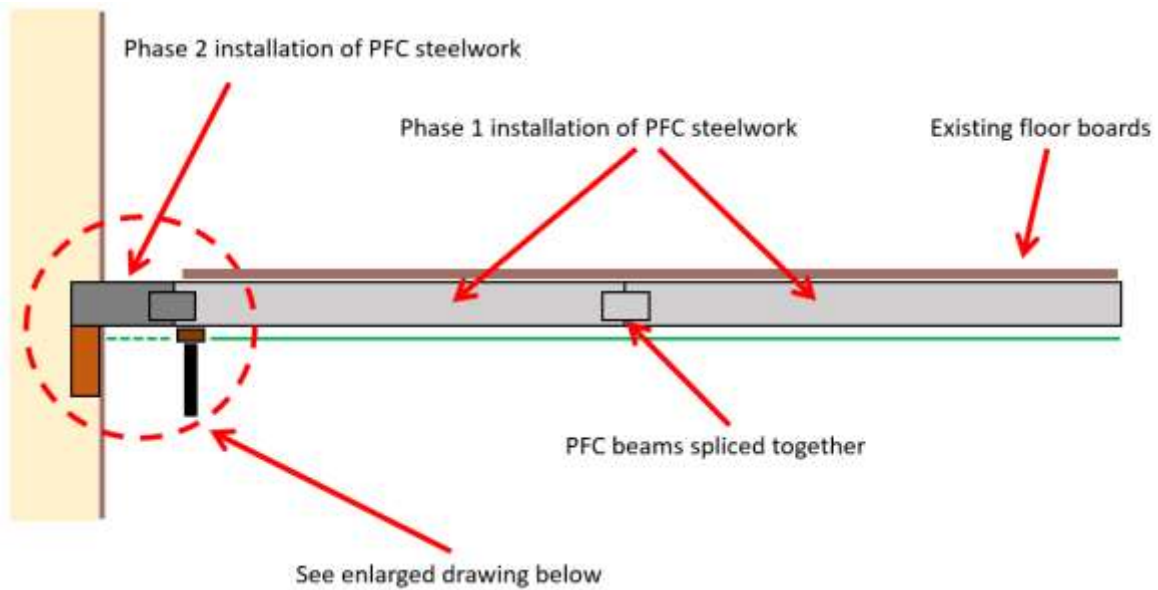
- A mortar bed will be laid on the bottom of the pocket and the padstones will then be lifted and placed within the pocket. The padstone will be lined and levelled and the remaining gaps around the padstone will be filled with mortar.

1.3 Phase 3 – Installation of PFC Steel Beams

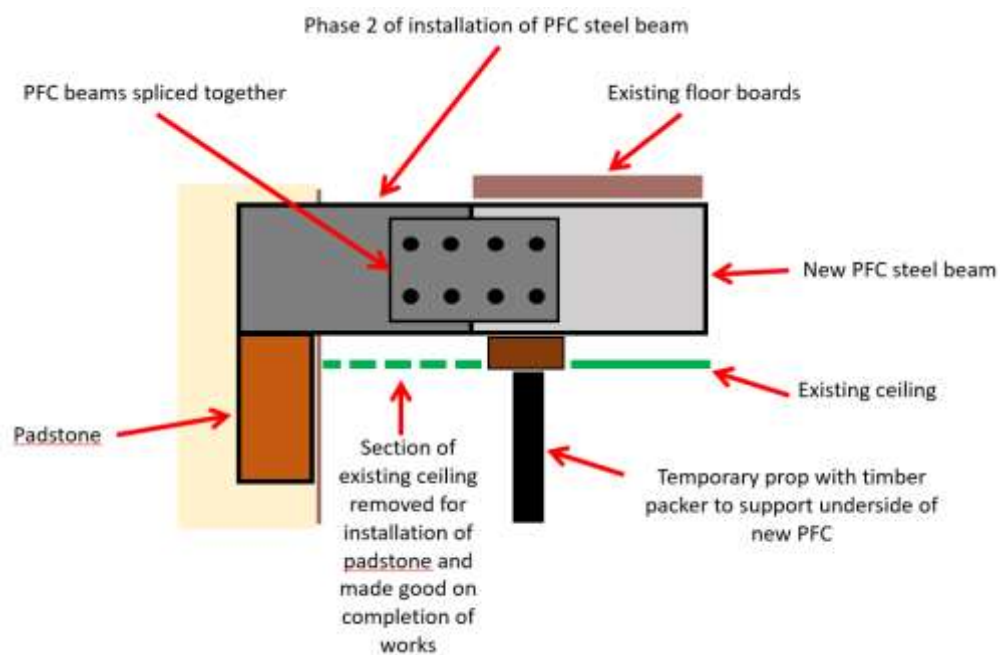
- Due to the length of the PFC beams they will be fabricated in three sections and then spliced on site.
- On the 3rd and 2nd floors the steel PFC beams will be made in 3 sections, and on the 1st and ground floor the steel PFC beams will be in 2 sections.

3rd & 2nd Floor PFC Beams

- Phase 1 of the installation of the PFC steel beams will entail positioning the end section of the beam on the padstones that are built within the internal wall, and the other end of the beam will be temporarily propped from below. The reason for this being is that the front façade on the 3rd and 2nd floors and the rear façade on the 3rd floor need to be rebuilt.

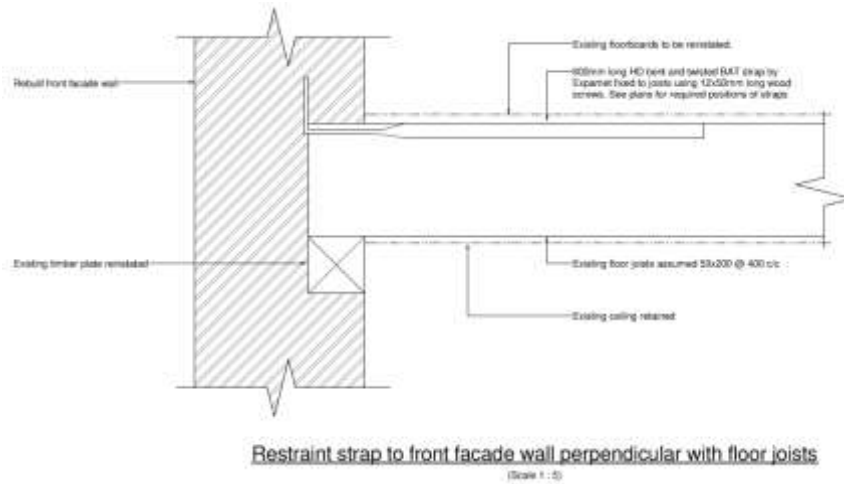


- When the above facades are rebuilt later in the programme, the padstones will be incorporated within the rebuilt brickwork.
- This will then allow the phase 2 installation of steel PFC beams.



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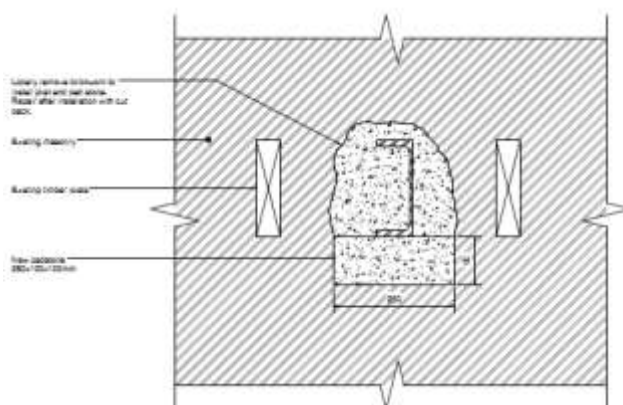
- The fixing of the HD bent and twisted BAT strap by Expamet to the joists will also be carried out as the brickwork façade is rebuilt.



- Once the facades have been rebuilt and the strengthening works completed the temporary propping will be removed.

Ground & 1st Floor PFC Beams

- The beams to these floors will be installed with one splice. The reason for this is that the front and rear facades do not need to be rebuilt on the ground floor, so enabling the beams to be positioned on padstones at either end when being installed, and on the 1st floor the beams run in the opposite direction.
- The PFC steel beams will then be installed on top of the padstone and the surrounding brickwork will be made good and dry packed.
- The above procedure will be repeated for each steel beam.

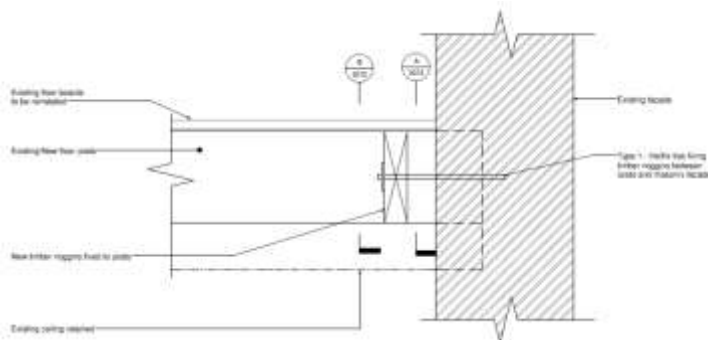


1.4 Phase 4 – Install Additional Timber Joists, Noggins and Ties

- Once the steelwork to an area has been completed it will then allow the timber joists to the back of the PFC to be installed in conjunction with the new timber noggins between the joists. This will then allow the type 1 and type 2 helifix ties to be fixed to the existing masonry façade.
- Once the PFC steel beams have been installed to an area it will then allow the timber noggins and associated helifix ties to be fixed.
- A scaffold will be erected to the end wall of 32 Torrington Square to enable access for the installation of the helifix bars from the external face at 400mm centres fixed into 2No parallel joists at each level.

This work will entail the following:

- The position of the joist centre will be marked out on the external wall and then a clearance hole will be drilled through the wall. The hole will then be cleaned out.
- The BowTie HD will then be inserted and driven into, and through, the first and second joists.
- The plastic sleeve will be fitted over the BowTie HD and pushed to the back of the hole in the wall (outer leaf in a cavity wall).
- PolyPlus resin will then be injected to fill the hole and bond the BowTie HD to the masonry. The resin will be allowed to gel and then the hole in the brickwork will be made good.



- On completion of the strengthening works to an area the existing timber floor boards will be temporarily reinstated, as they will need to be lifted again later in the programme for the installation of the mechanical and electrical services.

1.5 Phase 5 – Making Good the Area Adjacent to the Stone Hearths

In a number of places the brick arches beneath the fire place stones need to be rebuilt.

This repair work will entail the following:

- Remove the existing timber floor in the vicinity of the stone hearth.
- Remove the stone hearth to allow access to the brick arch.
- Prop the existing arch in order to allow the brick arch to be rebuild.
- Install new trimmer beams and supporting joists.

- Reinstall stone hearth.

Brick Arch Beneath Fireplace Hearth to be Rebuilt



Stone to Fireplace Hearth



1.6 Phase 6 – Tie Front & Rear Walls to Internal / End Wall

In a number of places as highlighted on Webb Yates drawings the front and rear external walls are not tied into the inner party wall. In order to rectify this helifix ties have been specified to be used by Webb Yates. The following method will be used to carry out this work:

- Reinstall stone hearth.
- Predetermined slots on the internal wall are channelled out to the specified length right into the corner.
- Angled holes of 10mm are drilled from the corner into the external wall.
- The slots are cleaned out and flushed with clean water and the substrate within the slot is thoroughly soaked.
- Single lengths of HeliBar are bent to shape with the angled end being PolyPlus resin bonded into the hole and the remainder HeliBond grouted into the internal wall.
- The mortar bed is then re-pointed and the vertical crack made good.



Drawing to be referred to in-conjunction with this method statement are as follows:

Webb Yates

- J2889-S-DR-0010 Rev 05 - Façade Rebuild Front & Rear
- J2889-S-DR-0011 Rev 05 - Façade Rebuild Front & Rear
- J2889-S-DR-0012 Rev 04 - Typical Joist Connection Details
- J2889-S-DR-0090 Rev 08 - GA Basement Floor Plan
- J2889-S-DR-0100 Rev 08 - GA Ground Floor Plan
- J2889-S-DR-0110 Rev 08 - GA 1st Floor Plan
- J2889-S-DR-0120 Rev 08 - GA 2nd Floor Plan
- J2889-S-DR-0130 Rev 08 - GA 3rd Floor Plan
- J2889-S-DR-0140 Rev 07 - GA Roof Plan