

# Design and Access Statement

10 MARKET PLACE, WISBECH, PE13 1DT

## Introduction:

The proposed structural repairs to the front elevation of 10 Market Place, Wisbech, Cambs PE13 1DT on behalf of Whitfield Group Ltd aim to address long-term issues of timber decay and deterioration caused by water ingress. This document outlines the design and access considerations integral to the project.

## Design Considerations:

The design prioritizes the preservation of the existing building fabric, special attention is paid to interior architectural features, such as the cornice in the shop area. The cornice is carefully removed, stored, and later reinstated or replaced with a faithful reproduction to maintain the character and charm of the space. This ensures that the historical and aesthetic integrity of the interior is preserved. Temporary propping measures are strategically employed to ensure the safety of the structure during remedial works. Steel reinforcements, including plated sections and SHS posts, are introduced to provide lasting support.

## Preparatory Measures:

- Allow to decommission and make safe any existing services in the area where the works are to be carried out.
- Set aside fittings or fixtures within the ground floor shop accommodation and provide protection to these during works in progress.
- Provide protection to fixtures and fittings in the area of working, in particular around the area of the shop front. Protection is also required to the shop windows, internally and externally, as well as the feature display shelving set into the windows.
- Protective sheeting required to all of the floor coverings within the ground floor shop accommodation.
- Existing shop front doors to be temporarily taken off and set aside for re-use, with temporary secure door access provided for the duration of the works.
- Carefully remove existing feature coving across the width of the internal face of the walling to the front elevation. It is unlikely that the coving can be salvaged. Replacement matching profile coving will be required for the reinstatement works, in consultation with the CO.

- Allow to expose the perimeter edges of the existing beam across the shop front opening, with a further site visit by the Engineer arranged at that point to clarify assumptions referred to below, prior to works proceeding on site.

#### **Temporary Propping Measures:**

- Carefully cut back existing finishes at ground floor ceiling level across the full width of the shop front on the line of the main loadbearing external walling, to expose the existing support beam at this position. Cut back to be adopted to minimise disruption to existing finishes.
- Within the existing basement space, allow to strip back any decorative or boarded finishes to the inner face of the front external wall. Strip back to be taken to a minimum nominal depth of 1.00m off the inner face of the shop front opening. This applies over the full width of the basement.
- Within the basement, introduce a series of Acrow props set on top of double layer of scaffold spreader planks on top of concrete subfloor slab at basement level. Props to be taken from basement floor to basement ceiling level, with the props set in line with the ground floor propping over. Props to be secured against double layer of scaffold spreader planks at basement ceiling level.
- At ground floor level, with temporary protection in place over the tiled floor finishes, introduce new clear spanning plated steel beam, with the beam set in the gap between the inner face of the front external wall and the line of the proposed propping. Beam to have minimum two coats of shop applied protective paint coating, with on site touch in as necessary.
- With the beam laid on the floor deck, introduce a further layer of double scaffold spreader planks, set directly in line with the planks at basement level.
- At ground floor ceiling level introduce a further set of scaffold spreader planks, to provide continuous back propping from basement floor to ground floor ceiling level as noted in the attached drawings. Two rows of props proposed across the width of the building, with props set out at approximate 0.90m spacings across the width of the building, and at nominal 0.60m and 1.00m spacings respectively back from the line of the inner wall face of the main front elevation to the property.

#### **Access Requirements for New Permanent Supports:**

- Internally existing ceiling finishes and coving along the line of the trimmer beam at ground floor ceiling level over the full width of the shop front opening, area to be carefully cut back, minimising disruption to adjoining finishes.
- Following cut back of ground floor ceiling finishes, directly adjacent to the front LH and RH corner edges of the shop accommodation allow to form pockets in the enclosure walling at new beam bearing level.

- In the RHS enclosure wall a minimum 450mm long by 300mm deep by 100mm wide L-shaped Engineering brick padstone should be formed with the padstone finishing approximately 20mm below soffit level of the existing shop front beam.
- On the LHS enclosure wall the pocket should extend through the full thickness of the walling to allow for the new beam to be manoeuvred into place, with the beam threaded through to the adjoining passageway and then reinserted back over the open shop space to bear onto the padstone on the RHS flank wall. Beam to have minimum 150mm bearing each end onto the new padstones.
- In order to provide sufficient working space, in the LHS flank wall we would envisage a nominal 450mm wide by 900mm deep pocket being formed through the full thickness of the walling.
- Allow to trim back existing shop front fixtures and fittings positioned directly adjacent to the 140x140mm solid timber posts set either side of the double entrance doors into the shop. Display fittings at this position to be temporarily dismantled and set aside for re-use to allow for insertion of two new steel support posts.
- The existing timber posts will remain in position, with new 120x120x10mm square hollow section (SHS) steel posts introduced, with a nominal 15mm gap provided between the retained timber post and the new steel post. Steel posts centred on the line of the timber posts.
- Following exposure, existing timber posts and first floor joists, in the area of working to be inspected and any essential joinery repairs adopted as necessary.
- At ground floor level at the position of each of these posts, existing finishes to be locally cut back on the line of the 335mm wide solid substructure masonry. Cut back applies over an assumed 450mm long by 335mm wide by 300mm deep section of brickwork.
- Provide temporary Acrow prop support under the line of the existing beam once the display shelving has been set aside. Assume two pairs of Acrow props positioned as shown on the drawing, with props set upon double layer of scaffold spreader planks, on existing walling.
- We have assumed that the existing beam is a timber construction. Where that is the case, any significantly decayed or defective sections of timber should be carefully cut out, and replacement matching sized hardwood timber sections inserted using traditional joinery splicing techniques to allow for selective repairs to be carried out prior to inserting the new beam in place. Structural integrity of existing beam to be maintained when carrying out these works.
- Once repairs are complete, in consultation with the Engineer, provide clear preservative treatment to exposed timber work.

#### **New Steelwork Supports:**

- Raise the plated 300x100x8RHS (rolled hollow section) into position. Web of the box section to be positioned tight against the inner face of the existing, retained, beam, with

the welded base plate to be brought tight to the soffit of the existing beam. The plate will need profiled cut to the layout noted on the attached drawing, to allow for the plate to slot past both the temporary props and the retained posts.

- The beam needs to be lined, levelled and secured in position, with further sets of Acrow props on scaffold spreader planks on the floor deck. Once levelled, padstones at each bearing point to the enclosure walls can be completed, with full toothing and bonding in of new to existing brickwork. Padstone arrangement to be as attached drawing
- Where applicable, solid steel packers can be firmly driven into place between the top of the padstones and the underside of the steel beam. All supports should be allowed to fully harden, with accompanying making good of any disturbed brickwork in the area of working.
- Full packing out is also required between the top of the steel plate and the underside of the existing retained/repaired shop front beam to ensure full transfer of loading onto the steelwork.
- To provide lateral restraint between the existing beam and the new box section, introduce 13no minimum 225mm long TimberLok (or equivalent) fixings. RHS to have predrilled holes on both vertical uprights, with the holes commencing 200mm end from each end, set out at nominal 500mm centres along the length of the beam with the holes staggered 50mm either side of the centre-depth of the beam, as noted on the attached drawings.
- Across the top of the stiffened beam assembly allow to rake clean and remove any loose or disturbed mortar finishes and provide replacement mortar packing as appropriate.
- Set the new 120x120x8mm SHS (square hollow section) steel posts in position, with the posts bolted through welded cap plates with integral gusset stiffeners as noted in the attached drawings, to the soffit of the beam over.
- At floor level welded base plates to be secured down to cast in situ concrete padstones on the substructure walling set in the pockets referred to above. Top of padstone to finish 75mm below floor level.
- Post and base plate assembly to be fully packed out in position to ensure transfer of permanent loading onto existing substructure walling. Following exposure of the substructure walling allowance needs to be made for possible localised repair or repointing measures as appropriate.
- Once all steelwork is secured in place further coat of corrosion protective paint finish to be applied. At base plate level minimum 75mm all round concrete collar protection required to base plate and post.
- Steelwork requires touch in paint finish and fire protection to details to be agreed with Building Control Officer, utilising either intumescent paint finish or Fireline boarding as appropriate.

### **Reinstatement of Ground Floor Finishes:**

- Allow to remove temporary propping at both basement and ground floor levels once permanent support structure is secured in place.
- Reinststate any damaged or disturbed wall or ceiling finishes in the area of working. Reinstatement to include provision of replacement feature coving across the width of the shop front with the coving set against built up finishes to CO approved details, including Fireline protection boarding to the steel beam.
- Once plasterwork and any associated redecorations are completed in the ground floor shop area remove temporary protective boarding.
- Reinststate display shelving in the shop front with modifications as appropriate to fit around the new steel posts.
- Remove temporary access door and reinststate original double doors into the shop.
- Provide replacement matching ceramic wall tile finishes at the beam bearings.
- Redecorate ground floor shop area and reinststate fixtures and fittings as required by CO.

### **External Repairs to Front Elevation:**

- Externally provide scaffold access across the front elevation of the building through to eaves level.
- Remove all debris from gutters and downpipes and carry out essential maintenance style repairs to restore these to a free flowing watertight condition.
- The discharge provided for the main downpipe on the front elevation at ground level needs to be cleared and rodded/flushed through to ensure clear discharge of stormwater runoff away from the outer face of the walling.
- Clean down and repair/repoint damp stained brickwork on front elevation generally.
- Where minor cracking is present on the front elevation, carefully rake clean and repoint with a colour and texture matched CO approved sand lime repair mortar.
- Where more significant cracking is present, notably around the first floor window openings, damaged sections of brickwork should be locally cut back, and reset to an optimum alignment, with full toothing and bonding in of replacement to existing brickwork. Existing bricks to be cleaned down and re-used
- As part of these repairs, any significantly damaged brickwork should be reinforced with stainless steel Helibars, cut and grouted into the walling. This will apply both internally and externally to significant crack lines around the first floor window openings in particular. Bars to be centred 50/55mm back from the inner or outer faces of the front external wall, with the bars grouted in position in accordance with supplier's recommendations.
- Grout to finish 20/25mm back from the face of the brickwork, to then allow for conventional face pointing along the repair line where the bars have been inserted. Bars

to be centred on the crack lines and set out at 225/300mm centres vertically over the height of the significant crack lines both internally and externally.

- Where window cills are significantly out of alignment these should be reset in conjunction with realigning the brickwork, subject to agreement with the CO.
- On the front elevation, to the RHS window opening, the brick arch detail at first floor window head level needs to be carefully taken out and reset and realigned, with full packing out and pointing up in position.
- Complete any remaining masonry repairs on the front elevation, together with any other conventional maintenance style repairs requiring scaffold access.

#### **Internal Repairs to Front Elevation:**

- Internally, following completion of masonry repairs, conventional lime plasterwork patch repairs to be adopted to any significantly cracked or damaged sections of plasterwork to the inner face of the front external wall.
- From a visual inspection we would anticipate selective cut back and reinstatement of plasterwork finishes within the first floor reception room around window openings. At second and third floor levels, more modest, maintenance style plasterwork repairs applicable.
- As part of these works, any damp affected or loosened plasterwork finishes need to be carefully cut back and replaced.
- Accompanying joinery repairs to be adopted to ensure free operation of all external joinery goods on the front elevation within their respective frameworks, with accompanying redecoration with scaffolding in place.
- Reinstatement and recommission any disturbed services in the area of working with accompanying Certification.
- On completion of all works allow for clean-up and clearance both internally and externally with removal of all plant materials and debris from site.

#### **Conclusion:**

The Design and Access Statement presents a comprehensive overview of the proposed structural repairs, emphasizing the careful consideration of design elements and access requirements. The document ensures compliance with planning regulations while preserving the historical and architectural integrity of the property.