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civil & structural engineers

Structural Survey Report

of

The Gate
Rickmansworth Road
Northwood
London
HA6 2RH

for

Mitchells & Butlers Plc

226261/July 2026

Structural Survey Report

STRUCTURAL SURVEY AT:	The Gate, Rickmansworth Road, Northwood, London, HA6 2RH
CLIENT:	Mitchells & Butlers Plc
DATE OF SURVEY:	21st July 2026

BRIEF

We have been instructed by our Client, Mitchells & Butlers Plc, to attend site and inspect areas of cracking on the external walls and a lean on the chimney stack.

Our inspection was non-intrusive and limited to areas that could be safely accessed.

DESCRIPTION

The property is a grade II listed public house. The ground slopes away from the front of the building towards the road.

OBSERVATIONS

The majority of the notable cracking is located on the chimney to the left of the building.

The chimney has had numerous repairs historically, and there is a small room with a mono-pitched roof that has been built on the northeast side of the chimney.

There is a large historic crack on the northwest face of the chimney which runs vertically from the ground to the underside of the mono-pitch tiled roof on the side of the chimney that has been patched up previously (photo 1). The crack appears to have opened up slightly at the side.

There is a crack that runs vertically on the northeast face of the chimney (photo 2). A metal strap wraps around the north corner of the chimney. The last fixing on the strap on the northwest face of the chimney has pulled out and the brickwork that the fixing was in has spalled (photo 3).

We understand that there was a tree approximately 3.5m from the corner of the chimney, that has been removed and there is evidence of roots pushing up the paving in the area below the chimney. Historic photos of the site indicate that the crack predates the tree at the corner.

There is a slight lean on the chimney towards the front of the building and into the building (photo 4).

Cracking was noted above some of the arches over the windows at ground floor on the front elevation (photo 5 - 7).

On the left side elevation, there is also a slight crack above one of the window arches (photo 8).

There is some spalled brickwork on the front and front right elevation (photo 9 - 10).

CONCLUSION/RECOMMENDATIONS

The majority of the cracking on the building is possibly due to thermal movements caused by cement based mortar being placed over the original lime mortar.

We recommend that the cracks are raked out and that any cement mortar on the chimney and elsewhere on the building is removed and replaced with an NHL 3.5 lime mortar to match the

original for the long term durability of the building. If the cracking above the arches over the windows returns, we recommend that the cracks are stitched back together using Helifix detail LR10.

From the British Geological Survey maps, the substrata below the premises is expected to consist of London Clay which has high volume change potential which can shrink and swell due to seasonal change and from the action of tree roots. The tree may have contributed to the patched up historic crack opening up on the chimney.

We recommend that the historic crack that has opened up on the chimney is stitched together using Helifix Helibar detail CS05 and repointed with a lime mortar.

The extent of the lean on the chimney does not currently appear to be significant enough to be a cause for concern, however, we recommend high level access is provided so it can be assessed more closely.

Spalled brickwork should be replaced with like for like bricks where the loss of face exceeds 10mm. Where the loss is less than 10mm, the brick could be turned around so the good face is showing externally.

The fixing on the chimney that has pulled away should be reinstated using a galvanised resin fixing.

As the property is grade II listed, all works will need to be done in conjunction with conservation officer approval.

We trust the above is clear if, however, you wish to discuss further please do not hesitate to contact the writer.

End of Report.

James Woodley

James Woodley MEng
BAXTER GLAYSHER CONSULTING

Appendix: Site Photographs
Helifix detail LR10
Helifix detail CS05



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8

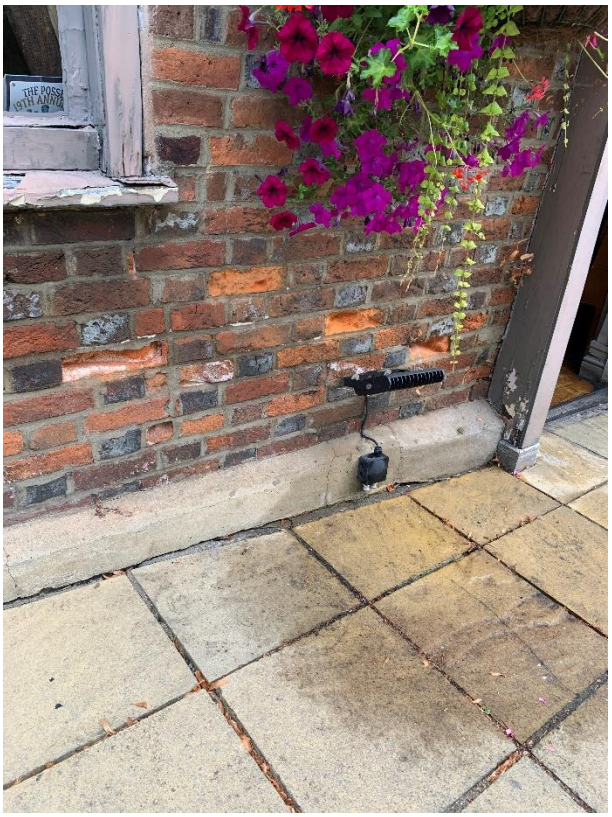


Photo 9

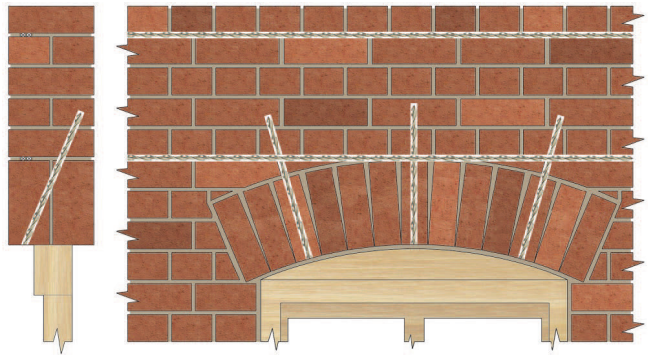


Photo 10

Repair of Failed Brick Arch Lintels using HeliBars and CemTies

METHOD STATEMENT

1. Using a twin-bladed, diamond-tipped wall chaser and vacuum attachment followed by a hand or power chisel, cut slots into the horizontal mortar joints, to the specified depth and at the required vertical spacing. Ensure that NO mortar is left attached to the exposed brick surfaces in order to provide a good masonry/grout bond.
2. Mark the positions for the CemTie holes on the underside of the soldier course.
3. Drill 14mm clearance holes (16mm if the CemTie is longer than 450mm) at the required angle and to the specified depth. The angle of drilling should be such that the hole will pass behind the lower HeliBars (where installed) and penetrate at least 50mm into the course of masonry above the reinforcing.
4. Remove ALL dust and mortar from the slots and holes and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use HeliPrimer WB. Ensure the slot and holes are damp or primed prior to commencing steps 7 and 15.
5. Mix HeliBond cementitious grout using a power mixer and load into the Helifix Pointing Gun HD.
6. Fit appropriate mortar nozzle.
7. Inject a bead of HeliBond grout, approx. 15mm deep, into the back of the slot.
8. Push the first 6mm HeliBar into the grout to obtain good coverage.
9. Inject a second bead of HeliBond grout over the exposed HeliBar.
10. Push the second 6mm HeliBar into the grout to obtain good coverage.
11. Inject a third bead of HeliBond grout over the exposed HeliBar and iron it into the slot using a finger trowel. Inject additional HeliBond grout as necessary leaving 10-15mm for new pointing.
12. Repeat steps 7 to 11 for the lower slot.
13. Attach the required length of CemTie pinning nozzle to the gun and pump grout to fill the nozzle.



14. Wind the CemTie into the nozzle and ensure that it is fully covered in grout.
15. Insert the nozzle to the full depth of the drilled hole and pump the CemTie and grout.
16. Make good the CemTie holes and point up the remaining slots with a suitable matching mortar. Make good the cracks with an appropriate Helifix bonding agent depending on the width of the crack.
17. Clean tools with clean, fresh water.

N.B. Pointing may be carried out as soon as is convenient after the HeliBond has started to gel.

RECOMMENDED TOOLING

- **For cutting slots up to 40mm deep**
  Twin bladed cutter with vacuum attachment
- **To achieve final depth of slot beyond 40mm**
  Hand or power chisel
- **For drilling**
  SDS rotary hammer drill 650/700W
- **For mixing HeliBond**
  3-jaw-chuck drill with mixing paddle
- **For injection of HeliBond into slots**
  Helifix Pointing Gun CS with mortar nozzle
- **For insertion of the CemTies**
  Helifix Pointing Gun HD with pinning nozzle
- **For smoothing pointing**
  Standard finger trowel

Specification Notes

The following criteria are to be used unless specified otherwise:

A. Depth of slot into the masonry to be 40mm to 55mm.

B. Height of slot to be equal to full mortar joint height, with a minimum of 8mm. For thin mortar joint specifications refer to the Helifix Technical Dept.

C. Top and bottom reinforcements should be positioned as far apart as practicable, up to a maximum distance equivalent to 12 brick courses (approx. 900mm). The upper course should be reinforced first.

D. HeliBar to be long enough to extend a minimum of 500mm beyond each side of the opening.

E. Any fractures in the masonry within the 'beam zone' MUST be stabilised by Crack Stitching, injecting CrackBond TE or replacement of the masonry.

F. Depth of hole to be CemTie length +25mm.

G. Any missing or very poor quality masonry MUST be replaced.

H. In hot conditions ensure the masonry is well wetted or primed to prevent premature curing of the HeliBond due to rapid de-watering. Ideally additional wetting of the holes and slots, or priming with HeliPrimer WB, should be carried out just prior to injecting the HeliBond grout.

I. Do not use HeliBond when the air temperature is +4°C and falling or apply over ice. In all instances the holes and slots must be thoroughly damp or primed prior to injection of the HeliBond grout.

The above specification notes are for general guidance only and Helifix reserves the right to amend details/notes as necessary.

GENERAL NOTES

If your application differs from this repair detail or you require specific advice on your particular project or Helifix products, call our Technical Sales Team on **020 8735 5222**.

Our Technical Department can provide you with a full support service including:

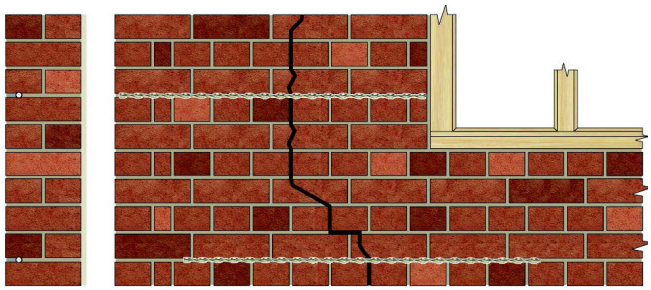
- Advice, assistance and recommendations on all structural repair matters
- Devising and preparing complete repair proposals for specific situations
- An insurance-backed warranty via our Approved Installers scheme

Crack Stitching a Solid Wall using HeliBars

METHOD STATEMENT

1. Using a twin-bladed, diamond-tipped wall chaser with vacuum attachment, cut slots into the horizontal mortar joints to the specified depth and at the required vertical spacing. Ensure that NO mortar is left attached to the exposed brick surfaces in order to provide a good masonry/grout bond.
2. Remove ALL dust and mortar from the slots and thoroughly flush with water. Where the substrate is very porous or flushing with water is inappropriate, use HeliPrimer WB. Ensure the slot is damp or primed prior to commencing step 5.
3. Mix HeliBond cementitious grout using a power mixer and load into the Helifix Pointing Gun CS.
4. Fit the appropriate mortar nozzle.
5. Inject a bead of HeliBond grout, approx. 15mm deep, into the back of the slot.
6. Push the 6mm HeliBar into the grout to obtain good coverage.
7. Inject a second bead of HeliBond grout over the exposed HeliBar and iron it into the slot using a finger trowel. Inject additional HeliBond as necessary, leaving 10-15mm for new pointing.
8. The crack within the wall should be weather-proofed using an appropriate Helifix bonding agent e.g. HeliBond or CrackBond, depending on the width of the crack and the surface made good or left ready for any decoration.
9. Clean tools with clean, fresh water.

N.B. Pointing may be carried out as soon as is convenient after the HeliBond has started to gel.



RECOMMENDED TOOLING

- **For cutting slots up to 40mm deep**
  Twin bladed cutter with vacuum attachment
- **For mixing HeliBond**
  3-jaw-chuck drill with mixing paddle
- **For injection of HeliBond into slots**
  Helifix Pointing Gun CS with mortar nozzle
- **For smoothing pointing**
  Standard finger trowel

Specification Notes

The following criteria are to be used unless specified otherwise:

A. Depth of slot into the masonry to be 35mm to 40mm.

B. Height of slot to be equal to full mortar joint height, with a minimum of 8mm. For thin mortar joint specifications refer to the Helifix Technical Dept.

Continued...

C. HeliBar to be long enough to extend a minimum of 500mm either side of the crack or 500mm beyond the outer cracks if two or more adjacent cracks are being stitched using one rod.

D. Normal vertical spacing is 450mm (6 brick courses).

E. Where a crack is less than 500mm from the end of a wall or an opening, the HeliBar is to be continued for at least 100mm around the corner and bonded into the adjoining wall or bent back and fixed into the reveal, avoiding any DPC.

F. In hot conditions ensure the masonry is well wetted or primed to prevent premature curing of the HeliBond due to rapid de-watering. Ideally additional wetting of the slot, or priming with HeliPrimer WB, should be carried out just prior to injecting the HeliBond grout.

G. Do not use HeliBond when the air temperature is +4°C and falling or apply over ice. In all instances the slot must be thoroughly damp or primed prior to injection of the HeliBond grout.

The above specification notes are for general guidance only and Helifix reserves the right to amend details/notes as necessary.

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If your application differs from this repair detail or you require specific advice on your particular project or Helifix products, call our Technical Sales Team on **020 8735 5222**.

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