

Investigations and outcomes:

Prior to developing proposals it was necessary to investigate various aspects of the gates to establish basic and detailed facts. This was necessary in order to assess the project aims and consider what it is realistic and appropriate to deliver.

Paint Analysis

The existing paint is black in colour but is flaking extensively, revealing a red oxide primer beneath. During investigation works no historic photos were discovered that could confirm original paint colour, therefore a full paint analysis was undertaken to establish what evidence remains on the gates. Paul Croft of Lincoln Conservation was commissioned and attended site to take samples on 21st April 2022. The report is provided as part of the accompanying application documents, from this the following was derived:

- Paint sample evidence supports the date for the gates as being likely early 9th Century.
- The gates have been painted with black oil paints throughout their history.
- The scroll tops have been picked out in gold paint, but this is a recent feature dating from probably no earlier than 1980.

Lincoln Conservation were also able to advise on suitable redecoration and in this respect suggested the following:
Primer - Rust-oleum Zinsser Metal Primer
Top coats - Zinsser AllCoat Exterior Gloss (water-based).

Overall Gate design

The majority of evidence found to date the gates is in map form, however there is an anonymous painting of the east side of Ayscoughfee Hall dated 1821 that appears to show gates of the extant design. Since the paint analysis findings support this date, and in the absence of any further evidence, it is concluded that the gates are original and at least early 19th Century.

Condition

With respect to the general condition of the gates, these were visually inspected in some detail. Numerous areas of damage and defect were discovered and these are recorded on the application drawings. It is acknowledged that some damage may have been missed, some may not be visible from the exterior or may be concealed by paint and general grime. During this process, input and advice was sought from Chainbridge Forge in Spalding as they have a strong knowledge of metalworking and a experienced-based practical knowledge of what is achievable.

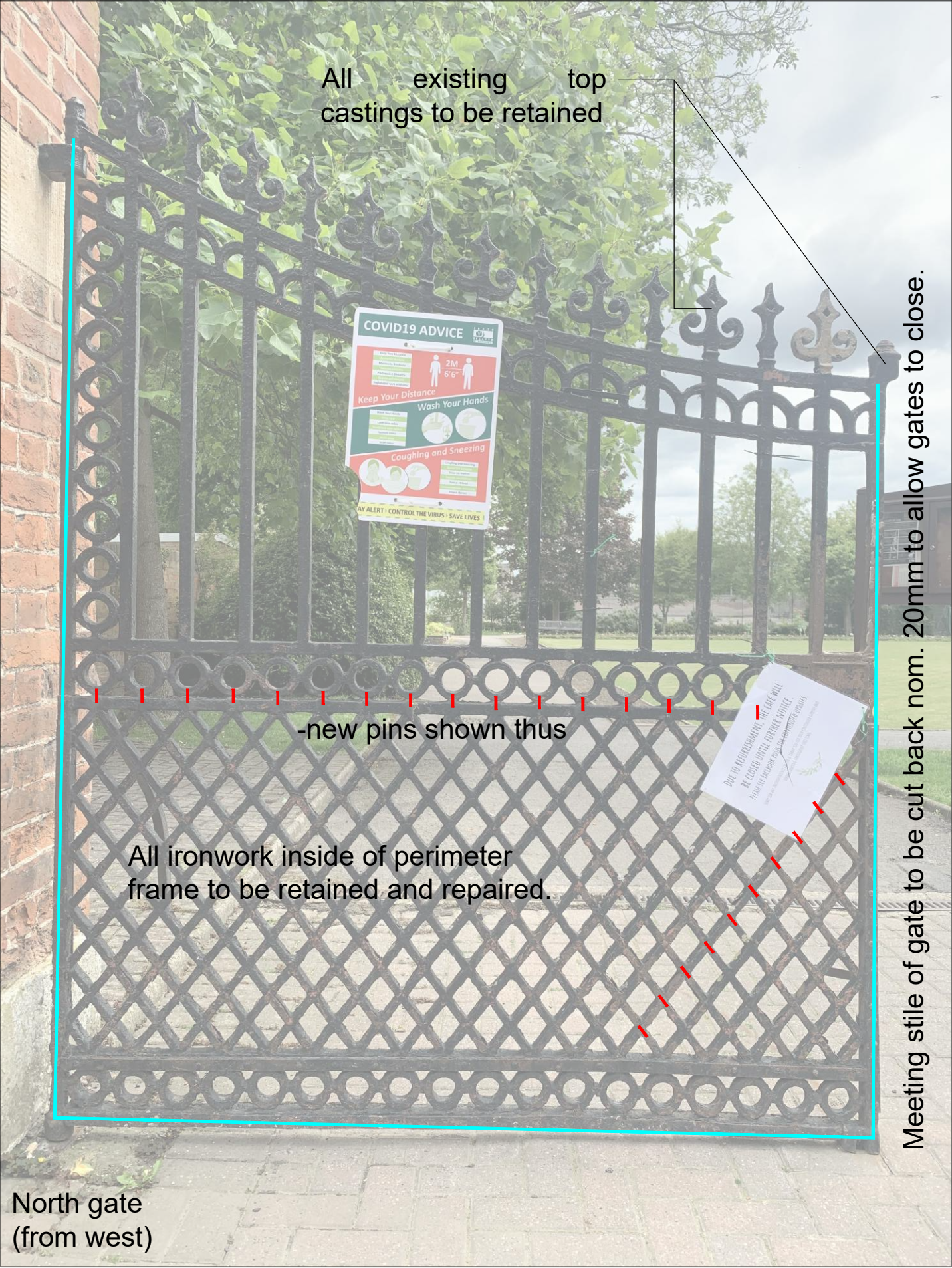
Proposed works - south gate:

- South gate to be carefully removed from hinge points to allow transfer to workshop.
- Existing paint finishes to be removed using controlled media blasting. Media to be selected to minimize surface damage to iron.
- Historic repair strapping to be removed.
- Distorted, cracked outer frame member of gate to be carefully cut away from central lattice and ring ironwork.
- Existing lock box to be assessed for damage and reused if repairable. Should this not be the case then new to be fabricated to match existing in all respects.
- Existing lattice and ring ironwork to be brought back into flat alignment and repaired locally by installing pins tapped and died. Lock edge of gate (lattice work etc) to be cut back nominally 20mm in readiness to attach new perimeter frame. This as an allowance to move the meeting stiles apart slightly to allow the gate to close properly (distortion currently prevents this).
- New steel perimeter frame to be measured and constructed to replace former.
- New steel perimeter frame to be attached ensuring that original details within centre of gate and along top are retained in situ.
- Gate to be prepared and redecorated as specified elsewhere
- Gate to be returned to site and rehung using adjustable hinges in place of existing fixed hinges within pillar brickwork.
- Any disturbed brickwork to be made good reusing existing bricks set in lime mortar to match existing in all respects.
- Gates to be adjusted and lubricated on site to ensure correct and full operation.

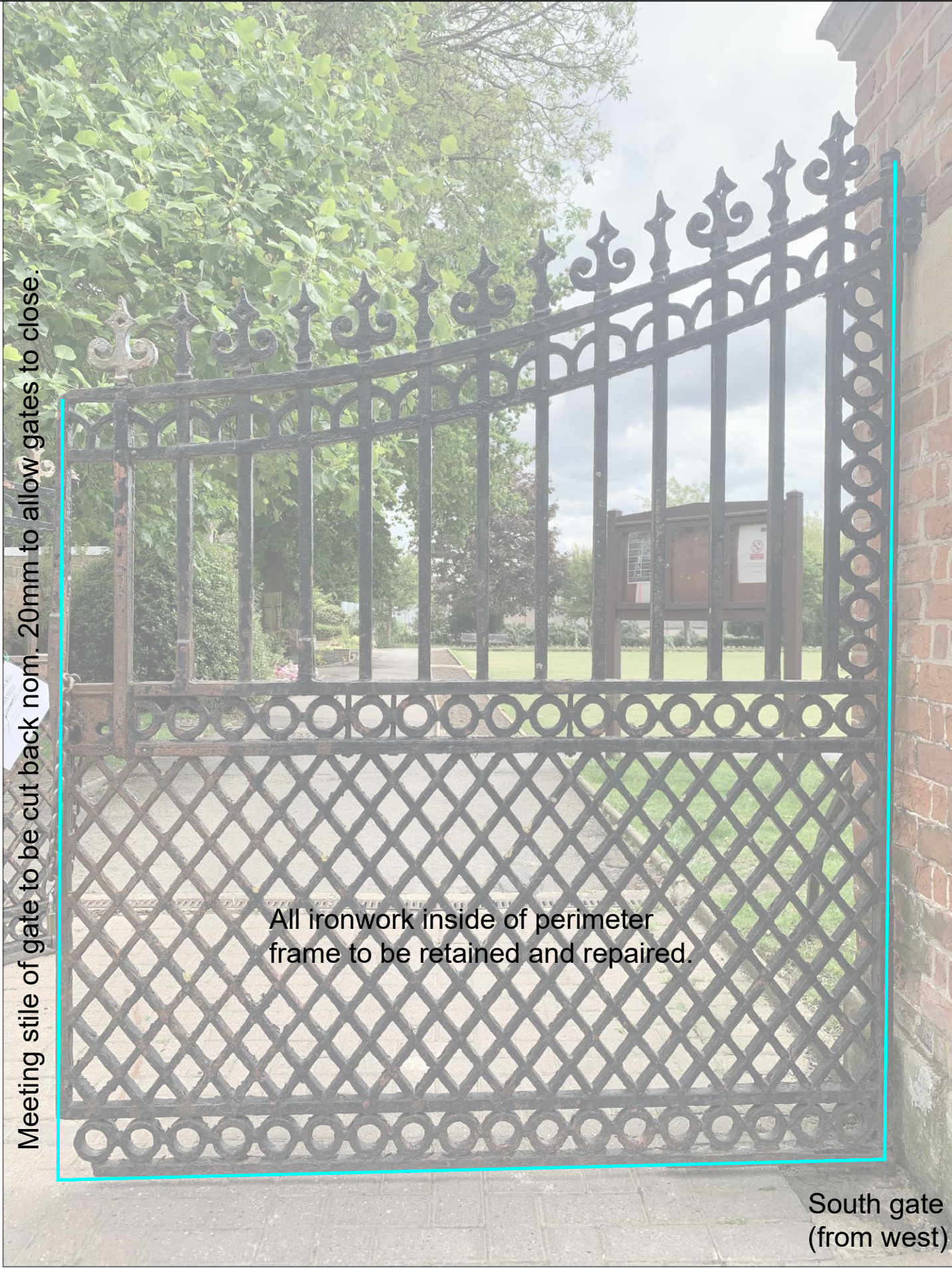
Proposed Redecoration works to both gates:

Following removal of existing paint and primer layers and suitable preparation of metal surfaces, the gates are to be redecorated in black throughout, in order that their original appearance can be best replicated. Paint system to be the following or equal approved:

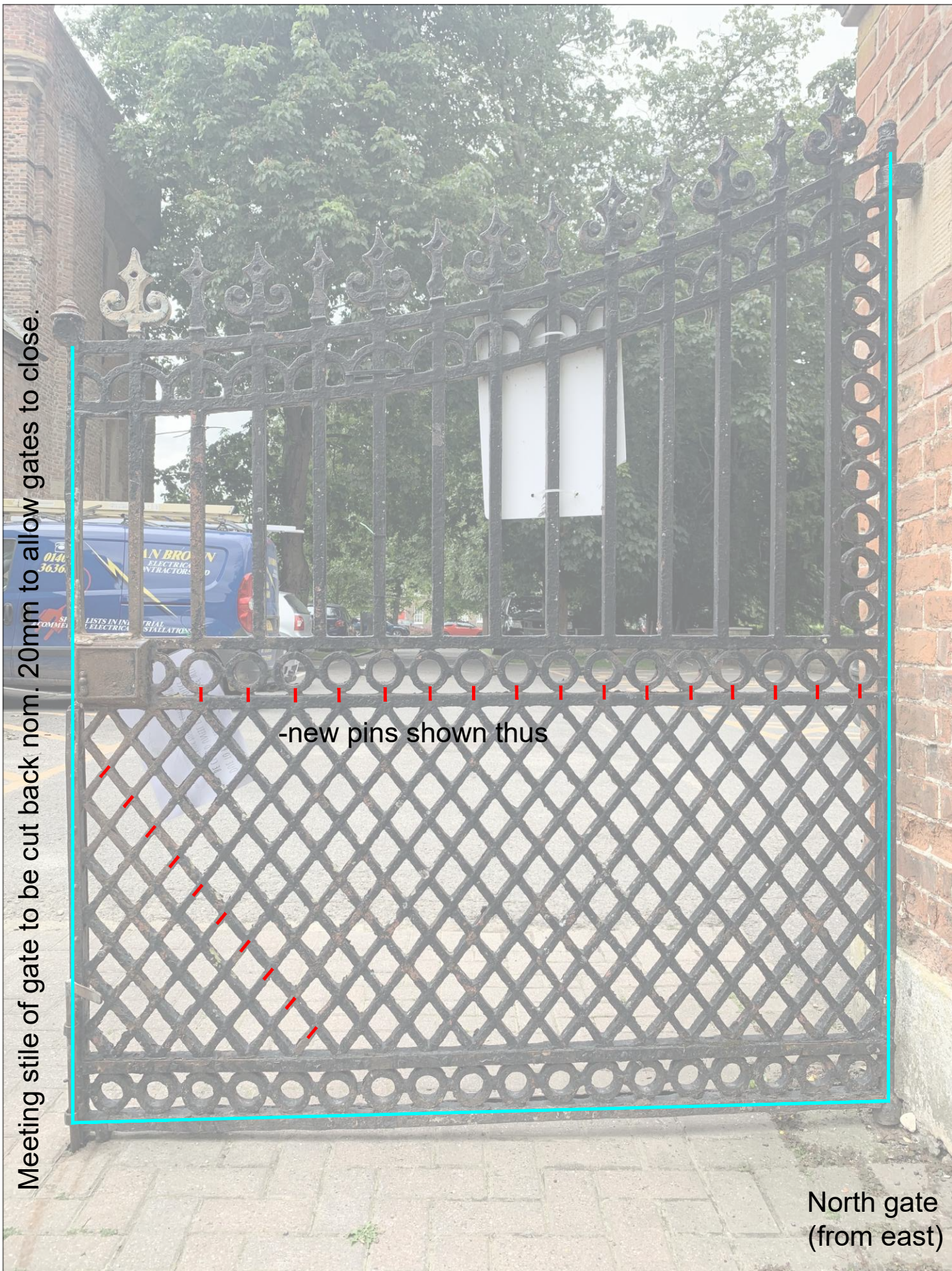
Primer - Rust-oleaum Zinsser Metal Primer
Top Coats - Zinsser AllCoat Exterior Gloss (water based).
All works to be in strict accordance with manufacturer's recommendations.



View of gates from west (the Chestnut Avenue) - showing visible defects and repairs



View of gates from east (inside Ayscoughfee Gardens) - showing visible defects and repairs



Key findings of the visual investigation.

- The gates have distorted over time, particularly the south gate and have been repaired on at least one occasion. It is suspected that this distortion is either caused or worsened by the self-weight of the gates.
- The central iron sections of the gates (latticework etc) have fractured and cracked in areas, though overall the historic fabric remains present and intact. It is suspected however that this has structural integrity only as infill.
- The outer frame of both gates shows the greatest degree of distortion and has evidence of cracking. The repair strapping that has been added to the gates is all attached to either the mid-rail or the perimeter frame (side and base members) of both gates. This suggests that the outer frame has failed historically and that there has been a problem with both distortion and failure for a significant period of time.
- The hinges appear to be a later addition and do not allow for any adjustment of the gates to accommodate distortion or mis-alignment.

Considerations in developing proposals:

- The gates appear to be original and therefore the initial assumption that the fabric is of architectural and historic interest, worthy of conservation rather than replacement, is correct.
- The historic paint evidence found provides information about the original colour and finish and allows reasonable replication of the original appearance as part of these works.
- The central ironwork within the gate is original and intact though it has suffered fractures in numerous locations. Discussions with Chainbridge Forge have indicated that this could be saved and the cracks could be secured using pins. This would retain the original fabric, address the breaks and minimize further deterioration, though the lattice etc would require structural support to its perimeter to prevent further damage occurring in daily use.
- The perimeter frame of both gates has fractured in multiple locations and has been heavily strapped historically. This has however not prevented distortion to the extent that it is no longer possible to close the gates. In consultation with Chainbridge Forge, it is not consider feasible to further repair the outer frame in a satisfactory manner that will afford the required structural support for the infill, nor is it feasible to remove the distortion within the existing frame. It is however noted that the curved upper frame members for both gates could be retained and repaired.
- The hinges and floor pivot points for the gates are all fixed and allow no adjustment to stop the gates from clashing. This presents an ongoing problem.

Proposed works - north gate:

- North gate to be carefully removed from hinge points to allow transfer to workshop.
- Existing paint finishes to be removed using controlled media blasting. Media to be selected to minimize surface damage to iron.
- Historic repair strapping to be removed.
- Distorted, cracked outer frame member of gate to be carefully cut away from central lattice and ring ironwork.
- Existing lock box to be assessed for damage and reused if repairable. Should this not be the case then new to be fabricated to match existing in all respects.
- Existing lattice and ring ironwork to be brought back into flat alignment and repaired locally by installing pins tapped and died. Lock edge of gate (lattice work etc) to be cut back nominally 20mm in readiness to attach new perimeter frame. This as an allowance to move the meeting stiles apart slightly to allow the gate to close properly (distortion currently prevents this).
- New steel perimeter frame to be measured and constructed to replace former.
- New steel perimeter frame to be attached ensuring that original details within centre of gate and along top are retained in situ.
- Gate to be prepared and redorated as specified elsewhere
- Gate to be returned to site and rehung using adjustable hinges in place of existing fixed hinges within pillar brickwork.
- Any disturbed brickwork to be made good reusing existing bricks set in lime mortar to match existing in all respects.
- Gates to be adjusted and lubricated on site to ensure correct and full operation.

- Preliminary locations for proposed tap and die pin connections.

- Extent of distorted and fractured perimeter frame to be removed and replaced with new in steel.

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**Proposed works to North Gates (at end
of The Chestnut Avenue)**

Drawing Title: Annotated photographs showing repair and conservation proposals.
LBC APPLICATION ISSUE

Date:	June 2022	Scale:	as shown @ A1
Drawn by:	ajo	Checked by:	cls

Drawing Number: A1572-52	Rev: P01
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